AUSTRALIAN GOVERNMENT | GOVERNMENT OF TIMOR-LESTE | INTERNATIONAL LABOUR ORGANIZATION

ROADS FOR DEVELOPMENT (R4D)[1]

Project Document

XB Symbol:	
Project title:	Roads for Development (R4D)
Country:	Timor-Leste
Technical field:	EMP/INVEST
Administrative unit:	ILO Country Office for Indonesia and Timor-Leste (CO-Jakarta)
ILO Responsible Official:	Director of ILO Country Office for Indonesia and Timor-Leste, Mr. Peter van Rooij, vanrooij@ilo.org
Technical Backstopping Unit:	EMP/INVEST: Employment Intensive Investment Programme (EIIP) for Asia and the Pacific
Collaborating ILO Units:	International Training Centre of the ILO
External Implementing Partners:	Department of Roads, Bridges and Flood Control (DRBFC) under the State Secretariat of Public Works of the Ministry of Infrastructures (MoI).
Budget requested:	US$ 30,000,000
Implementation period:	Scheduled from March 2012 to February 2016
Evaluation requirements:	An independent joint GoTL/AusAID/ILO mid-term evaluation in the beginning of year 3 and an independent joint GoTL/AusAID/ILO final evaluation at the end of year 4. In addition, a joint AusAID/ILO Independent Monitoring Group (IMG) will monitor on an annual basis the quality and performance of Program implementation. These annual IMG reviews will provide feedback and guidance regarding adjustments – as required – to ensure the continued relevance and performance of R4D in a changing context. The outcome of the mid-term evaluation and the IMG review in the third year will allow sufficient time for the design of an eventual follow-up phase for another 4 years.

[1] In order to better reflect the focus of the program and to avoid confusion in name similarity with the EC-funded RDP project, the GoTL and AusAID may want to think about another name for the program. A possible alternative name that could be considered is *Rural Roads Sub-sector Support Program* (RRSSP). It is suggested that a Tetun name for the program is also be discussed between the GoTL and AusAID.

Brief Description of the Program

R4D's immediate objective is: *The GoTL is more effectively planning, budgeting and managing rural road works using labour based methods, as appropriate.* R4D is designed for 4 years. However, as significant capacity issues exist within key stakeholders and partners, full achievement of the objective of R4D may require an 8-years time horizon. R4D is designed to become the leading nation-wide program in the rural roads sub-sector in Timor-Leste, covering all the 13 districts of the country.

R4D's main thrust is to develop and institutionalize adequate capacities and instruments in the public sector – in particular within the Directorate of Roads, Bridges and Flood Control (DRBFC) of the Secretariat of State for Public Works under the Ministry of Infrastructure – that will enable GoTL to effectively and equitably plan, budget and implement investments in rural road construction, rehabilitation and maintenance.

A holistic capacity building strategy will be followed that will focus on strengthening capacities in the public sector. This will be done by supporting DRBFC in establishing functional management and technical capacities and operational tools, in supporting policy/strategy dialogue and development, by providing leading coordination support and by supporting the development of a performance culture and knowledge management capability.

Capacity building will be fully integrated within the institutional structure of DRBFC and ILO R4D specialists will work in-line with DRBFC staff. Considering the uncertainty of the direction and pace of the decentralization process and engagement levels of DRBFC, R4D's design incorporates sufficient flexibility to ensure that its interventions can respond to the actual situation on the ground. Capacity development will follow AusAID's staged approach and will take place on the back of substantial AusAID and GoTL capital investments for rural road works.

AusAID's expected budget for R4D is US$ 30 million, of which US$ 13.2 million for capital investments and the remaining funds for inputs related to capacity building (including staffing inputs, the procurement of equipment, co-sponsoring GoTL staff for up to the first two years of implementation, M&E, operations and backstopping support).

GoTL's recommended budget allocation to rural road works and staffing costs for DRBFC that would be implemented through government systems with R4D support is US$ 20 million (of which US$ 18 million for capital investments and US$ 2 million for staff costs).

Expected physical outputs from the envisaged combined funding by GoTL and AusAID are the rehabilitation of 450 km of rural roads, the construction of 40 km or rural roads and periodic and routine maintenance of respectively 700 km and 1,150 km of rural roads. In addition, approximately 4.7 million labour-days of short-term job opportunities for the rural people are expected to materialize through the capital investments by AusAID and the GoTL in rural road works during the implementation of R4D.

Based on current practices in TIM-Works of an average job rotation cycle of 80 days for rehabilitation works and on an annual basis for maintenance workers, and assuming that workers will only be employed once during R4D's implementation period, the program would provide short-term cash transfer benefits to about 52,000 rural women and men (i.e. 15% of the rural workforce) and their families, injecting US$ 14 million in the local economy.

Based on the principle of equal access to job opportunities for women and men, R4D will aim at a 50% participation of women in the workforce (for the rural road works). However, taking into account experiences with TIM-Works, it may be difficult to achieve this target because of cultural norms, mobility constraints of women and women's responsibilities for work at home and in the agricultural sector). As a reference benchmark at its start, 30% women participation in the workforce is targeted for (based on current TIM-Works experiences) but R4D will aim at increasing this rate to 50% through the implementation of its gender equality strategy – which is part of the R4D Social Safeguards Framework.

ABBREVIATIONS AND ACRONYMS

AAP	Annual Action Plan
ABCD Review	Annual Building Capacity within the Department Review
ADB	Asian Development Bank
AECCOP	Associação de Empresarios de Construção Civil e Obras Públicas (Association of Private Civil Works Contractors)
ADN	Agência do Desenvolvimento Nacional (National Development Agency)
Aldeia	Sub-village or hamlet
ARRAA	Annual Rural Roads Accessibility Assessment
AusAID	Australian Agency for International Development
AWP	Annual Work Plan
BESIK	Bee, Saneamento no Igiene iha Komunidade (Community Water, Sanitation and Hygiene) – AusAID-funded WATSAN program
BoQ	Bill of Quantity
CAP	Community Action Plan
CC	Climate Change
CD	Capacity Development
CDF	Capacity Development Framework
CPV	Cash Payment Voucher
CSIRO	Commonwealth Scientific and Industrial Research Organization
DA	District Administration
DB	Data Base
DBS	Data Base System
DDC	District Development Committee
DIDP	District Integrated Development Program
DNSAS	Direcção Nacional Serviço de Agua e Saneamento (National Directorate for Water and Sanitation)
DoE	Directorate of the Environment
DRBFC	Directorate of Roads, Bridges and Flood Control
DRR	Department of Rural Roads
DWCP	Decent Work Country Programme
€	Euro (European currency)
EC	European Commission
EIA	Environmental Impact Assessment
EIIP	Employment Intensive Investment Program
ESF	Environmental Safeguards Framework
EMP	Environmental Management Plan
EU	European Union
FGD	Focussed Group Discussion
GIS	Geographic Information System
GoTL	Government of the Democratic Republic of Timor Leste
GWG	Gender Working Group
HDI	Human Development Indices
HR	Human Resource
HRD	Human Resource Development
ICRD	Inter-ministerial Commission for Rural Development
IDRC	International Development Research Centre
IEE	Initial Environmental Examination
IF	Infrastructure Fund
ILO	International Labour Organization
IMG	Independent Monitoring Group
IP	Implementing Partner
IPR	Independent Progress Review
KM	Knowledge Management

KMU	Knowledge Management Unit
Km	Kilometer
KSTL	Konfederasaun Sindicatu Timor Leste (Confederation of Timorese Trade Unions)
LB	Labour-Based
LDP	Local Development Program
LED	Least Developed Countries
LEG	Local Expert Group
LGSP	Local Governance Support Programme
LRB	Local Resource-Based
MAF	Ministry of Agriculture and Fisheries
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MED	Ministry of Economy and Development
MIS	Management Information System
MoF	Ministry of Finance
MoH	Ministry of Health
MoI	Ministry of Infrastructure
MoV	Means of Verification
MSATM	Ministry of State Administration and Territorial Management
MSS	Ministry of Social Solidarity
NDRD	National Directorate for Rural Development
NGO	Non-Governmental Organisation
NIP	National Infrastructure Plan
NRMP	National Road Master Plan
OH&S	Occupational Health and Safety
PCU	Programme Coordination Unit
PDD	Programa de Desenvolvimento Descentralizado (Decentralized Development Program)
PMCS	Project Monitoring and Control System
PSC	Program Steering Committee
PMU	Project Management Unit
PW	Public Works
R4D	Roads for Development
RDP	Rural Development Programme (EC-financed)
RRSSC	Rural Roads Sub-sector Steering Committee
RRIS	Rural Roads Information System
RNDSP	Road Network Development Sector Project
RRRMP	Rural Roads Rehabilitation and Maintenance Project
SDP	Strategic Development Plan
SEFOPE	Secretaria de Estado ba Formasaun Profisional no Empregu (Secretariat of State for Vocational Training and Employment)
SEMA	State Secretariat for the Environment
SEPI	Secretariat of State for the Promotion of Equality
SSF	Social Safeguards Framework
Suco	Town or village
TA	Technical Assistance
TL	Timor Leste
TIM-Works	Investment Budget Execution Support for Rural Infrastructure Development and Employment Generation
TLSLS	Timor Leste Survey of Living Standards
TOR	Terms of Reference
TOT	Training Of Trainers
UNCDF	United Nations Capital Development Fund
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme

UNFCCC	United Nations Framework Convention on Climate Change
US$	United States dollar (Currency used in Timor-Leste)
WATSAN	Water and Sanitation
YEP	Youth Employment Promotion [Programme]

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EXECUTIVE SUMMARY

The R4D Program

The Roads for Development program (R4D) has been designed as the main donor-funded program that will support rural roads in Timor-Leste. R4D will be implemented by the International Labour Organisation (ILO) in partnership with the Government of Timor-Leste (GoTL). The direct counterpart agency will be the Directorate of Roads, Bridges and Flood Control (DFRBC) in the Ministry of Infrastructure (MoI). The proposed donor contribution of US$30 million over four years (beginning in March 2012) will be provided by AusAID.

Objective

The development objective of R4D is that **women and men in rural Timor-Leste are deriving social and economic benefits from improved road access**. Its immediate objective is that **GoTL is more effectively planning, budgeting and managing rural road works using labour based methods, as appropriate**.

Approach

These objectives will be pursued by a combined strategy of direct investments in road works and supporting GoTL to plan, budget and manage rural road works. Support to GoTL will consist of policy dialogue, technical advice and capacity development.

Investments

The design recommends that GoTL make an investment of US$20.6 million in the rural road network through capital investments (US$18.6 million) and increased staff resources (US$2.0 million) over four years. The AusAID investments will be managed by the ILO in partnership with DFRBC staff. The GoTL investments will be managed by DFRBC with the support of R4D.

R4D has been designed as a four-year program but it is acknowledged that the achievement of its immediate objective will take at least eight years. An independent mid-term evaluation and annual joint monitoring missions will guide the decision whether to proceed with the design of a second four-year phase.

Expected results

Based on the proposed AusAID contribution and recommended GoTL investment, it is estimated that by the end of four years:

- 450 km of roads will have been rehabilitated
- 700 km of roads will be subject to periodic maintenance
- 1,150 km placed under routine maintenance.

This will be a significant contribution to the target set under the GoTL *Strategic Development Plan 2011-2030* of rehabilitating all rural roads by 2015.

The main benefits for women and men in rural Timor-Leste that are expected from the rehabilitation and maintenance of rural roads through R4D are social and economic benefits from improved rural road access. Impact evaluation studies of rural roads projects in Timor-Leste and elsewhere indicate that improved rural road access can have a wide range of livelihood benefits for the rural people using the improved rural roads. These include the benefits of lower transportation costs and reduced travel times on: i) the cost of agricultural inputs and services, agricultural productivity and agricultural outputs; iii) higher farm-gate prices for farmers; iv) improved access to health centres, basic education and local markets, and; v) an increase in local economic activity and an increase in off-farm businesses and employment opportunities.

Low labour costs mean that labour-based methods are a cost effective way to sustainably manage rural roads in Timor-Leste. It is estimated that the appropriate use of labour-based methods, where appropriate,

will provide around 52,000 people (15 per cent of the rural workforce) with short-term employment over the four years of the program.

The detailed design for R4D is set out in this Project Document and was prepared by the ILO through a joint design process with significant inputs from AusAID and ongoing engagement with GoTL.

Development context

Over 70 per cent of the Timorese population live in rural areas and rural roads provide a vital link to the outside world. It is estimated that up to 80 per cent of the approximately 3,000 km of rural roads in Timor-Leste are in a poor condition. The poor state of rural roads is a key constraint to economic development and service delivery in rural areas.

A key factor in the deterioration of the rural road network is the inadequate GoTL budget for the rural road network, particularly maintenance. In some previous years GoTL has made funds available to build new rural roads but in 2011 there was no dedicated budget for rural road rehabilitation and maintenance.

DFRBC has a small number of staff responsible for managing the entire road network. Their attention is focussed almost entirely on the national and district roads which have dedicated funding. The existing systems and staff capacities in DFRBC need to improve significantly to manage rural roads effectively.

The effectiveness of GoTL in planning, budgeting and managing the road network is compromised further by a fragmented and constantly-changing system for procuring small-scale infrastructure. GoTL has committed to formal decentralisation in 2014 and in the meantime has allocated substantial funds for small-scale infrastructure through the 13 District Administrations. This approach has been successful in getting resources into the districts. However, quality controls have been weak and procurement processes often fail to provide value for money.

The current decentralisation model has a role for line ministries – including MoI – in providing technical support to District Administrations in managing investments. However, the low capacity of DFRBC outside Dili means there is little interaction with District Administrations in practice. While DFRBC has five regional offices, the reach and effectiveness of these offices is limited, even in the districts in which they are based, let alone the other eight districts. While funds for road rehabilitation are increasingly provided through this decentralisation process, MoI retains direct responsibility for road rehabilitation and maintenance, and building new roads.

Other donor programs in the roads sector have tended to focus on national, and to a lesser extent, district roads. The Asian Development Bank (ADB) is the lead donor in the roads sector as a whole in Timor-Leste. Through R4D, AusAID will become the largest donor in the rural roads sub-sector. This is an appropriate division of labour given the ADB's focus on national roads.

The EC has directly implemented a small rural and district roads program in one district and Japan, through the ADB, is funding rural road works in three districts. The largest current rural roads program is the US$11.5 million TIM-Works program, implemented by the ILO and funded by several donors including AusAID. These programs, especially TIM-Works, provide valuable lessons for R4D. Working with the Secretariat of State for Vocational Education and Training (SEFOPE), TIM-works has demonstrated the potential for institutionalising the skills and processes for managing labour-based rural road works. Indeed R4D will seek to draw on the pool of skilled staff in SEFOPE when TIM-Works concludes in February 2012. However, there is currently no donor program that is providing strategic support on rural roads at scale to MoI - the core agency for the rural road system. R4D fills this gap.

R4D will be coordinated with a smaller European Commission (EC)-funded project that is training small roads contractors which will also be implemented by the ILO. There is also significant potential for sharing lessons and coordinating policy dialogue with AusAID's planned new rural water, sanitation and hygiene program that has been designed in parallel to R4D and will also work with MoI.

Strategic context

R4D will directly support the achievement of GoTL's targets for rural roads in the *Strategic Development Plan 2011-2030* (SDP). The SDP sets the targets of the rehabilitation of all rural roads by 2015. A Rural Roads Master Plan will be developed that will set out a program for the rehabilitation of rural roads.

The prioritization and selection of rural road works will be done in accordance with GoTL priorities and will be guided by the Strategic Development Plan (SDP), the priorities of DRBFC and District Administrations, and the draft rural roads master plan that was developed with EC-funding. DRBFC and R4D will update the rural roads master plan in accordance with the SDP priorities and this will provide the guiding framework for investments made by AusAID and GoTL in the rural roads sector.

R4D is closely aligned to the target of rehabilitating all rural roads by 2015 but it is important to be realistic about what can be achieved in such a short timeframe. Factoring in earlier rehabilitation works, the AusAID and GoTL investments proposed in this design would lead to the rehabilitation of 38 per cent of the rural road network. A more realistic timeframe for the rehabilitation of the entire network is likely to be ten years. GoTL could accelerate the rehabilitation of rural roads by making a larger total investment but, given the small number of qualified contractors, doing so would probably compromise the quality of works.

Maintenance will be a key priority under R4D. The program will undertake or support the maintenance of all roads that are rehabilitated under R4D as well as roads rehabilitated by previous programs. Through the Master Plan and ongoing policy dialogue, R4D will encourage GoTL to take a life-cycle cost approach to rural roads investments, making adequate budget provisions for future maintenance needs.

R4D is aligned with the *Australia-Timor Leste Country Strategy 2009-2014* which includes the key objective of increasing employment by improving infrastructure, including through labour intensive initiatives. The program also aligns with the ILO's *Decent Work Country Program for Timor-Leste* and the overarching *United Nations Development Assistance Framework.*

Program description

R4D combines direct investments in rural roads with technical support and capacity building for GoTL's budgeting, planning and management of rural roads. The logic of this mixed approach is threefold:

- It is essential to strengthen GoTL capacity and performance in the rural roads sector. While AusAID and the ILO could simply make direct investments external to government, this would only improve parts of the road network for a short time. Direct investments alone will not leave behind a sustainable road management system.
- There is an urgent need to improve road access in rural Timor-Leste and GoTL budgets and capacities are too limited to achieve this without donor investments. Improving rural livelihoods and services delivery depends on better road access. Given the starting point, a program that focuses purely on building GoTL capacity is unlikely to have the same economic and social benefits that can be achieved with some direct donor investments. Progress towards the SDP target would be much slower without direct investments.
- Direct investments can support capacity development by:
  - Building key relationships as a basis for policy dialogue and system strengthening
  - Credibly demonstrating the benefits of improved road access and labour based methods, making the case for evidence-based budget allocations
  - Providing opportunities for MoI and other GoTL key staff to learn by doing through working on the execution of donor investments and being supported in implementing GoTL investments.

There are still potential tensions between direct investments and capacity development in a program like R4D, particularly in determining the balance of budget allocations between direct investments, staffing and other capacity development inputs. R4D will ensure that direct investments are supporting capacity development and not undermining it. This will be a key management challenge for R4D and a key question for the M&E system and the periodic review processes outlined below.

Direct investment will involve ILO and DFBRC staff working together to plan and manage rehabilitation and maintenance funded by AusAID, using ILO systems. ILO staff will also provide technical inputs on GoTL's investments managed through GoTL systems. Over time these systems will be increasingly harmonised where possible.

The focus of R4D will be on rehabilitating and maintaining existing roads using labour based methods, where appropriate and building on the lessons from TIM-Works. However there will be instances where labour based methods are not appropriate. There may also be instances where new rural roads can be justified if their benefits outweigh their lifecycle costs and social and environmental impacts can be appropriately managed. R4D may therefore support GoTL to undertake a small amount of new road construction using its funds. No AusAID funds would be directly invested in new roads.

Capacity development will depend to a large extent on DFRBC recruiting additional suitably qualified staff to manage increased investments in rural roads and to support District Administrations on the investments channelled through them. DFRBC has made significant commitments to expand its staff numbers, including at the district level (starting in its five regional offices). R4D will support these staffing increases, not only with training but also by fully or partially funding some positions with a view to gradually handing over funding responsibility to DFRBC.

The program's approach to capacity development will focus on both individual capacities and on institutional performance. This means that, particularly in the early stages of R4D, there will be a focus on the joint development of key management systems with a view to institutionalising these systems in DFRBC over the life of the program.

Consistent with AusAID and GoTL's policy direction on the use of advisers, R4D will use the technical skills of specialist advisers but will incorporate a range of other approaches to capacity development such as internal and external training, twinning arrangements, and on-the-job learning. The design includes a draft Capacity Development Framework which will be finalised through a detailed needs assessment during the first year of the program.

Policy dialogue will be central to the ultimate success of R4D. Adequate budgeting for rural road works, including maintenance, will be a key issue. The GoTL investment recommended in this design provides a clear indication of what constitutes a necessary and feasible profile of budget allocation. Achieving these allocations will require sustained dialogue between AusAID, the ILO and various parts of GoTL, backed up by strong data on program results. The Australia-Timor Leste Partnership Dialogue will be one avenue for these discussions.

Supporting MoI to make credible submissions through the annual budget process will be important, as will dialogue with the Ministry of Finance and political leaders on the merits of these submissions. Policy dialogue will also promote sound institutional arrangements for road management and the integration of social and environmental concerns (including gender equality) in to road works. The development of the Master Plan will be a key early point for policy dialogue.

In the medium term, policy dialogue could be strengthened by providing funds through GoTL systems. However, any use of GoTL systems in the first four-year phase of R4D will be very limited. GoTL systems, particularly the fragmented procurement systems for road works, are considered too weak to deliver the proposed AusAID investments through ILO. The limited use of GoTL systems in the first phase of R4D will be explored during program inception in relation to funding for DFRBC staff costs. R4D funds will be recorded in the GoTL budget and financial reports.

As R4D is implemented, systems within MoI will be strengthened and the direction of decentralisation should become clearer. AusAID and ILO will be well placed to assess the quality of these systems as the working relationship with MoI deepens. AusAID and ILO will explore the possibility of using GoTL systems in a second four-year phase of R4D. The external review processes outlined below will guide a decision on this issue.

Management arrangements

R4D's staff and management structure will be embedded in DFRBC. DFRBC proposes to create a new Department of Rural Roads that would become the main counterpart institution for R4D. However, should the creation of this department be delayed, R4D will support the development of rural road capacities within the existing DFRBC structure.

The day-to-day management of R4D will be the responsibility of a Chief Technical Adviser engaged by the ILO in consultation with AusAID and MoI. This position will report to the ILO Liaison Office in Dili and will draw on technical support from the ILO offices in Jakarta and Bangkok. Other program staff will be engaged by the ILO with MoI involvement in confirming the need for the position, preparing terms of reference and selecting candidates.

R4D will be overseen by a Program Steering Committee comprising AusAID, ILO, MoI, the Ministry of State Administration and Territorial Management (MSATM) and the National Development Agency (ADN). MSTAM and ADN will be involved because of their key role in implementing GoTL's decentralisation agenda, including the management and oversight of funds channelled through District Administrations.

The Steering Committee will be a key forum for structured policy dialogue between AusAID, ILO and GoTL. Other ministries and donors will be engaged periodically through the Steering Committee, and mechanisms such as the Inter-Ministerial Forum on Rural Development, as issues arise.

Safeguards issues

The design of R4D aspires to best practice in the integration of social and environmental safeguards issues - including gender equality, disability, peace-building, child protection and labour, environmental management, and climate change adaptation. However, approaches will need to be tailored to the practicalities of the Timorese context, including limited GoTL capacity to manage these issues in the face of competing priorities. Realistic expectations and timeframes will be required around the extent to which practices adopted in relation to AusAID-funded investments can be adopted by GoTL.

The design includes detailed draft Social and Environmental Safeguards Frameworks. These will be finalised at inception under the guidance of a dedicated adviser. These focus both on maximising the program benefits in relation to these issues and minimising unintended adverse impacts. In relation to gender and disability, maximising benefits requires attention to the transport needs of women and people with disabilities, as well as providing equal opportunities for participation in the employment generated by labour-based works. In the case of gender, R4D will draw on the experience of TIM-Works which has a strong record, in a challenging context, of involving women in employment. Integrating disability into labour-based works is more novel and will start by piloting disability-sensitive employment practices.

Monitoring and evaluation and communication

R4D will build monitoring and evaluation (M&E) systems and a capacity for knowledge management within DFRBC. As such, the M&E system for the program will be kept as simple as possible. The proposed M&E system incorporates key quantitative indicators of progress. The design outlines the indicators at the level of the development and immediate objectives. A system for monitoring outputs will be developed at inception.

The M&E framework includes Annual Rural Roads Accessibility Assessments (ARRAAs) to measure R4D's contribution to its development objective, i.e. social and economic benefits for women and men in rural Timor-Leste from improved road access. R4D's achievements in reaching its immediate objective, i.e. GoTL is more effectively planning, budgeting and managing rural road works – using labour based methods as appropriate – will be measured through Annual reviews of Building Capacity within DRBFC (ABCD Reviews). The ABCD Reviews will also be used to answer the question "if R4D is not delivering key program outputs on time, within budget and of sufficient quality, why not?"

As noted above, clear and robust M&E will be central to successful policy dialogue and will inform communications with wider stakeholders. The program will also develop a communications strategy. While focussing on the key audiences for policy dialogue, this strategy will also support communications with other stakeholders including through an annual State of the Sub-sector Report.

R4D will incorporate two external review processes that will enhance accountability but, just as importantly, advise on ways to improve or consolidate program performance. An annual independent monitoring mission will be undertaken each year by AusAID and the ILO. Consistent with ILO processes the program will also be subject to independent mid-term and final evaluations. The annual monitoring missions will provide timely advice of the effectiveness of the program and its ongoing relevance in a changing environment, identifying the need for adjustments. The mid-term evaluation and the monitoring missions will inform the design of a possible second phase.

Risk management

The design incorporates a detailed risk matrix that outlines the key risks to program success, the risks of unintended consequences from the program and proposed mitigation actions.

The key risk to the program achieving its immediate objective is if further changes to the GoTL institutional structures for managing infrastructure further reduce the role of MoI in relation to rural roads. While the procurement of some rural roads works sits outside MoI in the District Administrations, it is necessary, given limited resources, that R4D focus its efforts on strengthening the central role of DFRBC in managing the rural road network. This will include strengthening DRBFC's capacity to work with District Administrations. However, if the mandate of MoI were to change, consideration will be given to providing more direct support to other GoTL agencies.

The design of R4D incorporates sufficient flexibility to deal with a changing mandate for MoI and other contingencies. The budget includes a provision for cost increase that if required could, for example, fund longer adviser assignments or support DFRBC staffing costs for longer than envisaged. What will be essential is that the program remains focussed on its objectives in determining how to reprioritise resources in response to changing circumstances.

1 Background and Justification

1.1 Introduction

1. The design of the R4D Program, as presented in this Project Document, is the outcome of a broad and extensive consultative process involving GoTL, other stakeholders and donors, AusAID and the ILO[2]. Following initial consultations in 2010 and early 2011 – culminating in a stakeholders' workshop on 3rd March 2011 – a Concept Note was prepared and shared with GoTL stakeholders.

2. After the endorsement of the Concept Note by AusAID, a mission plan for the R4D design mission was prepared[3] and a joint GoTL/AusAID/ILO Program Design Mission[4] was fielded from 1-19 August 2011 to prepare the detailed design of R4D. The design mission confirmed the overall relevance and validity of the Concept Note and this is reflected in the design. An overview of the consultations, meetings, field visits (including a focus group discussion with women's engaged in roads work) and workshops that were held during the design mission is presented in Annex 1. A list of the reference documentation that was used by the design mission is provided in Annex 2.

3. The Ministry of Infrastructure – through the Directorate of Roads, Bridges and Flood Control (DRBFC) of the General Directorate for Public Works (PW) under the Secretary of State for Public Works – has the mandate for the management of all public roads in Timor-Leste and will be the Government Executing Agency for R4D. As discussed during the workshop in March 2011 and as mentioned in the Concept Note, the ILO is the designated implementing partner for R4D, given its experience, technical expertise and demonstrated performance in labour-based rural roads development and capacity building projects in Timor-Leste and internationally.

4. Based on the design mission's assessment of current capacity constraints vis-à-vis R4D's capacity building outcomes, an implementation time-frame of 5 years – as envisaged in the Concept Note – appears to be very ambitious. Significant capacity issues exist within key stakeholders and partners that limit GoTL's efforts to plan, maintain and develop a rural roads network across the country. For this reason – and to facilitate alignment with AusAID's 4 years budget planning cycle – it is recommended to adopt for R4D a 4-years initial implementation period, but with the acknowledgement that the full achievement of the objective of R4D may require an 8-years time horizon.

5. To assess whether a continuation of R4D beyond an initial 4 years implementation period would be required, justified and relevant, it is recommended to address this question during an independent joint GoTL/AusAID/ILO mid-term evaluation in year 3. If the outcome of this evaluation recommends a continuation of R4D to enable it to fully achieve its objective, AusAID will consider funding for R4D for another 4 years following the design of a second phase. This evaluation will be supported with the findings from planned annual monitoring missions by an AusAID/ILO Independent Monitoring Group (IMG). The IMG will monitor on an annual basis the quality and performance of Program implementation. These annual IMG reviews will provide feedback and guidance regarding adjustments – as required – to ensure the continued relevance and performance of R4D in a changing context. The IMG will comprise representatives from ILO, AusAID and GoTL and the Terms of Reference for the IMG will be developed at inception jointly by the ILO, AusAID and MoI with the ILO taking the lead.

[2] Ministries, organizations, agencies, donors and projects involved in the consultations included MoI/DRBFC, Secretary of State for Public Works, ADN, MSATM, MoF, SEFOPE, Ministry of Economy and Development, DNRD, DoE, AECCOP, KSTL, Representatives of District Administrations of Baucau, Viqueque, Ainaro and Bobonaro, AusAID, ADB, EU, JICA, Norway, ILO, TIM-Works, BESIK, LGSP, RDP-III, PSCDP, JICA TA to DRBFC, ADB/AusAID TA to DRBFC, 'Our Road Our Future',

[3] Including a description of the mission's proposed activities and methodological approach, and a succinct overview of the key issues and questions that had to be addressed by the mission.

[4] Composed of a Team Leader cum Labour-based Rural Roads Specialist (ILO), an Institutional Capacity Development Specialist (AusAID), a Program Logic and Monitoring & Evaluation Specialist (AusAID), a representative of the Ministry of Infrastructure of the GoTL, a Gender Mainstreaming Specialist (ILO) and a national Engineering Specialist (ILO).

Recommendations made by the IMG will be brought to the attention of the PSC and the ILO will take the lead in responding to the recommendations made by the IMG.

6. The proposal for R4D reflects the priorities of GoTL and the Australian Government and recognizes the importance of providing and maintaining adequate rural road access to the rural population of Timor-Leste as a key pre-requisite for local and equitable economic development, poverty alleviation and gender equality promotion. R4D is designed to become the leading nation-wide program to support the GoTL in the rural roads sub-sector in Timor-Leste, covering all the 13 districts. Its main thrust is to develop and institutionalize adequate capacities and instruments in the public sector that will enable GoTL to effectively and equitably plan, budget and implement investments in rural road construction, rehabilitation and maintenance. The Program also aims to improve living and working conditions of women and men in rural areas, which will benefits both socially and economically of improved road access.

7. R4D will provide direct implementation support and investments in rural road rehabilitation and maintenance from AusAID resources and support GoTL to implement rural road works from GoTL's own budget. Where appropriate, labour-based approaches and technologies will be used to optimize short-term local employment generating opportunities for both women and men through R4D.

8. Whereas the creation of short-term employment is not a primary objective of R4D, it is considered an important aspect of the program. Gender equality and equitable practices will be taken into account in the recruitment of workers. R4D supports the fundamental principle of equal access to job opportunities for women and men and as such it aims at 50% participation of women in the workforce. Practical experiences in TIM-Works indicate however that it may not be possible to achieve this target because of cultural norms or women's mobility and time constraints (related to their responsibilities at home and their engagement in agricultural work).

9. The TIM-Works project succeeded in achieving a 30% women participation in the workforce and it is suggested that this percentage should be taken as a minimum benchmark at the start of R4D regarding the participation of women in the workforce. Through the implementation of activities related to gender equality under its Social Safeguards Framework , R4D will activity pursue the principle of gender equity and aim for an increase of women participation from 30% to 50% over its 4 years implementation period. On a yearly basis the effectiveness of the implementation of the gender equality activities and the Social Safeguards Framework will be reviewed by the PSC and – as required – corrective action will be taken to increase the effectiveness of the implementation of the Social Safeguards Framework – including gender equality.

10. Whereas the design of R4D is also building on lessons learned from other projects in Timor-Leste, like utilising the good technical benefits of TIM-Works, R4D is not simply an extension of TIM-Works. Capacity development aiming at improving GoTL's performance in budgeting, planning and managing capital investments in rural roads is the key activity that will provide sustainability. At the same time it is also understood that R4D will make a significant contribution to the much needed development and maintenance of the rural roads network in Timor-Leste, using both AusAID funds and supporting GoTL investments. Experiences with TIM-Works show that a combined approach of integrating capacity development with capital support for investments in rural roads infrastructure provides an effective platform with the required incentives for capacity building.

1.2 Timor-Leste Government Priorities, Policies and Strategies

11. To improve the quality of life of its people and to reduce the incidence of poverty, GoTL has committed to the development and improvement of a well-connected and coherent road network[5] and other key infrastructure, which are seen as being fundamental to the country's development. The need to strengthen the public service delivery capacity and to promote the development of the currently nascent domestic private sector is also recognized and prioritized as both public sector and private sector capacities are much needed, for example to deliver investments in road infrastructure.

12. The recently endorsed Timor-Lester Strategic Development Plan (SDP) 2011-2030 – which is superseding other current and past strategies – emphasizes the need for the coming 20 years to accelerate and increase investments in the country's infrastructure, including rural roads, as a key condition to achieve accelerated sustainable development. The SDP acknowledges that only scaling up GoTL's fiscal envelope is not enough to deliver improved infrastructure and that there is a need to increase the investment in the building of a national capacity to implement the SDP.

13. A central pillar of the SDP is the building and maintenance of core and productive infrastructure. The SDP recognizes the importance of an extensive network of quality and well maintained roads to connect communities, promote rural development, industry and tourism, and provide access to markets. Roads are the primary mode of transport and allow development and the delivery of resources to urban as well as rural areas. As mentioned in the SDP a good and well maintained road network is critical to most other sectors and supports the delivery of community services, health care and education.

14. The SDP mentions that a lack of investment in road maintenance often results in the need for emergency repairs, which is considered an expensive method of managing a road network. Given the extent and state of the road infrastructure, the SDP's initial priority is to rehabilitate and repair existing roads to maintainable standards to secure the road network currently in place, followed by putting in place comprehensive maintenance programs for these rehabilitated roads. As the economy expands, investment in new roads will be made if they serve important economic and social objectives.

15. The rehabilitation and maintenance of rural roads is given high priority in the SDP. It envisages that by 2015 all rural roads are rehabilitated to a minimum standard. In accordance with the SDP, rural roads surfacing work should include asphalt sealing, minor shoulder works, drainage and slope protection. The strategy is to engage locally based contractors – where possible especially female contractors – using labour-based methods and approaches which will generate significant rural and regional employment. The SDP states that a Rural Roads Master Plan will be developed that will set out a program for the rehabilitation of rural roads over its five year period. Roads that link district centres to sub-district centres will be given the highest priority for repair. These roads tend to carry the highest traffic volumes and are important transport connections. The SDP has identified 20 rural road priority links that will need to be the first rural road links to be rehabilitated because of their importance.

1.3 Contextual Analysis

1.3.1 Key Development Issues

16. Timor-Leste is one of the least developed countries in the region. According to the UNDP HDI Timor-Leste is ranked 120 out of 169 countries and the country is off-track to achieve most of the Millennium Development Goals (MDGs). The non-oil economy is essentially agriculture-based and is characterized by slow and volatile growth, although there has been recent strong growth in urban centres. Agriculture provides the main source of subsistence livelihoods for about 72% of Timor-Leste's

[5] Requiring investments in the country's highways, all-weather paved district roads that connect the country's 13 districts and all-weather community roads that reach local communities.

population of 1.1 million. Both women and men are involved in the agricultural sector. Agricultural productivity is low compared with other countries in the region.

17. The overall unemployment rate in Timor-Leste is estimated at 45%, with youth unemployment at 60%. Unpaid female work represents in the agriculture sector around 70% and 46% in non-agriculture sectors. It is estimated that out of the 15,000 young people entering the labour market every year only about 600 do find a job in the formal sector. With 50% of the population below 18 years old and a very high population growth (3.6%), high unemployment rates risk destabilising the country.

1.3.2 The Rural Roads Network

18. The poor condition of the basic infrastructure in general and the road network in particular, remains a key constraint to economic (including agricultural) development, and poverty alleviation. Roads constitute the primary mode of transport in Timor-Leste. Due to the poor condition of the relatively dense network of more than 6,000 km of roads, rural people face increased travel times and transportation costs and remain isolated in terms of access to social and economic facilities and services. Poor infrastructure, particularly in the transport sector, has been identified as being the major obstacle for women's access to markets and opportunities for economic progress[6].

19. The road network includes 1,426 km of national roads, 869 km of district roads, 716 km of urban roads and more than 3,000 km of (unpaved) rural roads. Exact figures about the total length of the rural road network and its condition are not available[7]. The figure of 3,025 km that is frequently used depicts the length of the rural road network at the time of independence in 1999. Since then however new rural roads have been opened up by the DRBFC and donor-funded projects have also been operating in the rural roads sector and the total length of the rural road network could be more. On the other hand it is also possible that rural roads that existed in 1999 have become completely derelict and may not be possible to rehabilitate anymore. Another question that needs to be asked is whether Timor-Leste requires a rural road network of about 3,000 km or whether a larger or smaller rural road network would better reflect actual rural road transport requirements[8]. In the absence of exact data, the commonly quoted figure of 3,025 km of rural roads will be used.

20. A recently completed draft rural roads master plan that was prepared with EC-funding included a road condition survey that indicated that out of the 787 km of motorable rural roads that were surveyed, 69% is in a bad condition[9]. An ADB Road Transport Sector Assessment Study in 2006[10] estimated that 89% of all unpaved roads in Timor-Leste (which include all the rural roads) are in a poor condition. Since 2006 some improvements in the rural roads network have taken place, notably through the TIM-Works project (rehabilitation of 300 km of rural roads), but the large majority of the rural road network remains in a poor condition. Combining the available information presented in this paragraph, it can be estimated that at present around 75-80% of the rural road network of 3,025 km is in a bad condition. The condition of the national and district roads is also poor. 80% of these roads are (or used to be) paved. The 2006 ADB study showed that about half of these paved roads are in a poor condition.

[6] ADB Country Partnership Strategy Timor Leste 2011-2015 - Gender Analysis and Strategy.
[7] In the absence of a road condition inventory database system for rural roads, no accurate information is available about the rural road network. Donor-supported projects in the rural roads sector also do not report to DRBFC about their achievements.
[8] One of R4D's planned activities is updating the Rural Roads Master Plan (RRMP). A determination of the optimum size of the rural road network in Timor-Leste will be one of the issues to be addressed in this RRMP (One of the findings for example of an ADB Road Transport Sector Assessment Study – Road Sector Investment Planning in Timor Leste, Technical Working Paper, October 2006 – was that the road network is relatively dense for a country with the level of development of Timor-Leste).
[9] Democratic Republic of Timor-Leste, Ministry of Agriculture and Fisheries and European Commission, Technical Assistance to Design the Master Plan for Rural Roads, Final Report, Rural Development Program III, November 2010,
[10] ADB Road Transport Sector Assessment Study – Road Sector Investment Planning in Timor Leste, Technical Working Paper, October 2006

1.3.3 Investment Levels for Rural Roads Development and Maintenance

21. Funding for the development and maintenance of the rural roads network is largely provided by donors. With the exception of maintenance activities implemented through donor-funded projects (e.g. TIM-Works and ADB-funded road maintenance projects), systematic routine, recurrent or periodic maintenance of maintainable roads hardly takes place through the state budget. Since 2008[11] DRBFC started to budget for rural roads but investment levels are very low vis-à-vis requirements and mainly focus on the initial opening-up of new rural roads. DRBFC's approved 2011 budget has no allocation for rural roads. For routine and periodic maintenance of district and national roads there is an allocation of US$ 5 million in the 2011 budget but the majority of these funds are used for emergency repairs[12] to ensure that roads remain passable for motorized traffic.

22. The current lack of adequate funding by the GoTL for the maintenance of (rural) roads and the prioritization of investments in road rehabilitation over investments in maintenance is considered very cost-ineffective as this approach leads to a quick deterioration of the roads and does not preserve the value of the assets, as would have been the case if the roads would be maintained properly. This is a key issue that will be addressed by R4D by including capital investments for the maintenance of maintainable roads and the inclusion of a maintenance investment plan as part of the Rural Roads Master Plan (RRMP) that will be prepared by R4D – building on a draft rural master plan that was prepared for MoI with EC funding.

23. MoF and the National Parliament play a key role in the review and approval of annual budgets proposed by technical line ministries. At present MoI does not have the capacities and data to prepare well-prepared budget proposals to MoF for investments in rural road works. This constraint, combined with the GoTL's Fiscal Envelope limitations, limit MoI's scope for influencing the budget approval process. Because of DRBFC's current weak capacities in delivering investments in rural roads, the GoTL tends to favour delivery channels like PDL and PDD for rural roads investments but these alternatives do not provide a long-term structural sustainable framework for investing in Timor-Leste's rural roads network. In addition, hardly any investments channelled through PDL and PDD are directed to rural roads. Another constraint is the fact that MoI needs the approval of the Civil Service Commission for the recruitment of civil servants. As recruiting temporary contract staff does not require approval of the Civil Service Commission, this approach may be considered as an initial step to increase DRBFC's staffing capacities (the same procedure was applied by SEFOPE in providing staff to the TIM-Works project).

24. Annex 3 provides an indicative overview of capital investments made by the GoTL and by donors over the last 5 years in the roads sector. Based on available data, Annex 3 shows that – whereas rural roads constitute about 50% of the country's road network – the rural roads sub-sector has received only about US$ 33.3 million (through donor-funded project), or 14% of the total investments made in the roads sector over the last five years (approximately US$ 243 million).

25. For the 2012 budget DRBFC submitted – through MoI – a request to MoF for a lump-sum budget of US$ 3 million for rural road works. The intention is to allocate approximately 40% of this budget for rural road rehabilitation (through small local contractors; this would be the first time that DRBFC would use small commercial contractors for delivering investments in rural road works[13]) and the remaining 60% for opening up roads to Sucos that have no road connection yet (opening up of new roads by DRBFC is done through force account[14], using heavy machinery and equipment[15]).

[11] In 2008 elections were held and the budget allocation in 2008 for rural roads was linked to the perceived need of opening up road access to isolated sucos in support of the preparations for the elections.
[12] Emergency maintenance works are implemented directly by DRBFC with its own staff and equipment, i.e. by force account.
[13] DRBFC currently does not have much information or expertise regarding possible construction technologies or unit-cost rates for different items of works for rural road rehabilitation works using labour-based approaches and methods.
[14] The implementation of works through force account means that DRBFC undertakes the construction activities itself, using its own staff and equipment required for the construction activities.

26. Meetings held with senior executive GoTL stakeholders during the design mission indicated a growing awareness about the importance of investments in the development and maintenance of the rural road network. But this is not reflected in comprehensive investment (master) plans or adequate budget allocations in the State budget. Insufficient awareness among budget decision-makers in GoTL about the importance of developing and maintaining rural roads is an important constraint in this respect.

27. In relation to the responsibility for the maintenance or rural roads, the registration of Timor-Leste's rural road assets is an issue. To maintain assets at district level, such as rural roads, these assets must be officially registered with the DAs. This is currently not the case. At the moment the MoF is the sole government holder of such assets. In the absence of the legal ownership of physical assets by the DAs, it is officially not possible for these DAs to allocate funds for the maintenance of these assets. In 2010 GoTL failed in an attempt to address this issue. Very recently this issue has been put on the agenda of the government again and a Decentralization Secretariat has been established to look into the matter of the registration of government assets

28. Another problem relates to DRBFCs technical and managerial capacity constraints and the lack of data required to enable the submission of well-prepared and justified budget proposals – that are aligned with GoTL's development priorities – to MoF's Budget Office. Apart from DRBFC's constraints in submitting good quality budget proposals for rural road investments, its overall budget performance has been lacking due to various constraints – in particular related to staffing capacities. Budget proposals from line ministries are reviewed by MoF against previous years' budget performance and DRBFC's budget performance constitutes another factor that explains the low level of state budget allocations for the rural road sub-sector through DRBFC. The high priority given by the GoTL to investments in the national and district road network within its fiscal envelope for investments in infrastructure[16] is another reason why investment levels in rural roads are low.

29. Whereas the improvement of the rural road network is a very high priority at the local level, only a few proposals for rural road works emerge through the bottom-up project prioritization process (this process includes Sucos, Sub-districts and Districts). During meetings held by the design mission with district government representatives it was mentioned that past experiences showed that proposals submitted to the central level for rural road works were usually not approved and proposals for rural road works are therefore usually not prioritized anymore by the district government.

1.3.4 Overall Capacity Issues

30. DRBFC of the General Directorate for Public Works (PW) under the Secretary of State for Public Works of the Ministry of Infrastructure (MoI) has the mandate for the management of classified rural roads in Timor-Leste. At present there is hardly any capacity in place in DRBFC for the effective planning, budgeting and management of investments in rural road works and DRBFC has no experience in the application of labour-based methods[17]. As part of GoTL's decentralization process, District Administrations (DAs) have also been designated responsibilities for the planning and procurement of infrastructure works (including rural road works) but the DAs also face significant capacity constraints that hamper the effective executing of their responsibilities and tasks.

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[15] According to DRBFC the cost of opening up new rural roads using heavy machinery costs between US$ 1,250 to US$ 2,500 per km (including the cost of surveying, cost-estimation, machinery operating costs and staff allowances and transportation costs. Although it was mentioned by DRBFC that the development of newly opened roads takes place in a staged approach, practically speaking it appears that usually no further investments are being made in developing newly opened rural roads.

[16] which is aligned with investment levels indicated in the Strategic Development Plan 2011-2030

[17] In the implementation of the rural road works, labour-based approaches and technologies will be used – where appropriate – that optimize short-term local employment generating opportunities for the local population and that will ensure environmentally sound approaches. Whereas the creation of short-term employment is not a primary objective of R4D, it is considered an important aspect of the program.

31. The R4D design mission has re-confirmed that significant capacity issues[18] exist within key stakeholders and partners which limit GoTL's efforts to plan, maintain and develop a rural roads network across the country. Capacity issues confirmed during the design consultations include:

1. Absorptive and counterpart capacity (individual and organizational) is a major constraint for GoTL partners (particularly MoI) and agencies associated with the rural roads sector. R4D will need to carefully balance and govern the tension between the absorptive/sustainability concerns, and the desire and need to forge ahead with road works.
2. Limited financial and planning expertise within MoI, particularly at the sub-national level. Little capability associated with the preparation of adequate budget submissions to MoF through Annual Action Plans (AAPs) that have to be prepared for this purpose.
3. Limited technical expertise (national and sub-national) associated with scoping, designing, implementing and monitoring rural road activities, i.e. engineers, works supervisors and skilled workers do not meet the needs of anticipated activity in the sector.
4. Limited national and sub-national capacity (human resource and funding) associated with planning, prioritizing and managing the procurement of services in support of rural road development. This is further complicated by the stalled process of decentralization.
5. Generally poor quality and limited experience of contractors when tendering and implementing contracts, as experienced by TIM-Works and other projects involved in local infrastructure development. Although there is a large number of registered small contractors seeking contracting opportunities in rural locations there will be a need to further support contactors to further develop their own capacity.
6. Availability and distribution of small scale equipment (particularly rollers and compactors) necessary to support rural roads development.
7. Availability of skilled labour at the community level to support labour based methodologies
8. Breadth and diversity of unskilled labour, including women, at the community level is generally good, although there are some concerns with regards to equitable employment opportunities, due to women being expected to continue many family task (e.g. supervising young children) whilst working in the field. R4D will address the issue of lack of skilled labourers among women by providing specific skills development training for female workers.
9. Insufficient gender awareness at community level, and total lack of expertise on gender mainstreaming in policies and programmes among implementing partners and especially DRBFC.

32. GoTL commitment for rural road exists, however capacity and recurrent funding is clearly lacking at this point in time. This is particularly so within the DRBFC which has the responsibility for managing and overseeing rural road initiatives.

33. Rural road activities are currently being supported across the country, however they all appear to be donor driven and not always aligned to DRBFC planning, systems and structures. As a result, direct capacity support to DRBFC is minimal, although local contractors and local communities have received capacity development support through donor programs. This further highlights the tension between supply-driven road works and the need to develop sustainable institutional capacity within DRBFC in support of long term management and development of the sector

1.3.5 Planning and Implementation Constraints

34. Apart from the insufficient budget allocations available for investment in the rural roads sector, the delivery rate and quality of the infrastructure works is affected by DRBFC's staffing limitations and operational constraints (in particular the availability of transportation and recurrent fuel budgets). This limits the scope for undertaking technical surveys, preparing proper designs and cost-estimates, tendering, and adequate works supervision and quality control.

[18] Previous detailed analysis highlighting this issue is provided in a number of reports, in particular: EC Rural Roads Assessment (2010), TIM Works MTR Final Report (2010), ADB Grant Assistance Report – Timor Leste: Our Roads Our Future (2009)

35. The Secretary of State for Public Works and DRBFC have indicated the intention of MoI to establish a Department of Rural Roads (DRR) within DRBFC in recognition of the need to give more attention and priority to the development and maintenance of the country's rural road network but it could not be confirmed whether or when the Council of Ministers would approve this proposal.

36. Along with the expected increase in decentralisation (an example is the proposal by MSATM to establish District Integrated Development Plans (DIDPs) from 2013 onwards), an improvement in structuring the process of submitting proposals for rural road works is anticipated. At present the submission of proposals is very unstructured and proposals are emerging from multiple sources (like Sucos, sub-districts, districts) and are being submitted to various government entities at different levels (like the DAs, DRBFC Regional Offices, DRBFC at central level, the Directorate of Public Works at central level, MoI at central level, Prime Minister's Office).

37. The GoTL is also considering introducing a national community development program to provide funding directly to Sucos (i.e. village-level) for basic infrastructure including rural roads. The program may be in operation in 2013. R4D will need to coordinate with, and possibly support the implementation of this and any other programs the government introduces supporting local level infrastructure development.

38. For the prioritization and approval of investments in rural road works, no official guidelines and/or criteria are available yet, nor are there government-endorsed rural roads master plans (at national and district level) to guide investments in the rural roads sub-sector. The whole process is currently much diffused and lacks transparency and it appears that adherence to process/procedural guidelines is insufficient[19].

39. With financial support from the EC (through RDP-III) a draft rural roads master plan was developed under the direction of MoI and its report was presented to the GoTL in November 2010 – *Technical Assistance to design the Master Plan for Rural Roads (MPRR)*. The MPRR is intended to complement the Master Plan for National Roads (MPNR)[20] and the 2009 AusAID-funded National Infrastructure Plan (NIP) for 2009-2020[21]. In addition, a Rural Road Policy document has been prepared by the DRBFC, Ministry of Infrastructure[22] and this plan was presented to the Council of Ministers for review by the end of August 2011. This policy document is intended to guide the sustainable development and management of rural roads and maximize the development impacts associated therewith. The MPRR is intended to provide the next step for ensuring a consistent approach to the planning, construction, improvement and maintenance of rural roads under DRBFC's responsibility.

40. Whereas the MPRR provides useful and valuable information, it has not covered the entire rural road network of Timor-Leste. Rural road surveys were only carried out on the 787 km of rural roads and rural road sections that were passable by 4 WD vehicles. DRBFC therefore has not endorsed the MPRR as an official GoTL rural roads master plan. It appears the MPRR has not been widely disseminated within MoI and DRBFC but it contains useful information that could be used as the basis for developing a comprehensive rural roads master plan covering the entire rural roads network in Timor-Leste.

41. Apart from capacity constraints for the delivery of rural road investments in the public sector (DRBFC and the DAs), there are serious capacity constraints within the private sector, i.e. among the

[19] Officially each Suco Council has to submit 5 priorities (through voting) to the sub-district council and the sub-district council in turn submits priorities to the district planning commission for review. This commission then forwards the proposal to the district government and concerned technical line ministries for checking against feasibility and line ministries' priorities. Once priorities are agreed at district level, proposals are being submitted to the central level (this is usually being done in July).
[20] Completed in 2009 with assistance from ADB.
[21] The NIP was developed under the direction of MoI and which provides guidelines for prioritizing works to improve the road network, to rehabilitate all roads and bridges as necessary, and to maintain them to minimize deterioration.
[22] With assistance of the TA of the EC-funded RDP-II.

small local contractors. According to the Association of Private Civil Works Contractors (AECCOP) there are about 3,000 small local contractors in Timor-Leste, with approximately 2,000 of them registered with AECCOP. AECCOP's contractors' classification system is however not completed yet. AECCOP indicated that assistance from R4D in finalizing the contractors' classification system would be welcomed. In addition to the small local contractors there are many small local NGOs[23] who also compete for obtaining small local construction contracts, as is the case in the AusAID-funded BESIK programme. Other programmes however, like PDD, only allow registered contractors to bid for works.

42. AECCOP indicated that the number of qualified small contractors is much less than the registered 2,000 contractors. According to AECCOP it would be sufficient to have approximately 10-20 qualified small contractors per district to cover construction requirements. AECCOP also mentioned that at the moment an effective quality control and assurance system of the work done by small contractors is lacking, which is leading very often to sub-standard work. Most of the small local contractors have limited management skills and have not sufficient cash flow reserves to enable them to continue their work if their payments are delayed. According to AECCOP contractors' payments are very often delayed with 2 months or more, thereby causing substantial delays in the implementation of works.

43. The only project that is currently addressing capacity building of small local contractors is TIM-Works. Through this project 19 contractors have been trained in technical and managerial skills required for the planning and implementation of rural road rehabilitation works using labour-based approaches.[24] The integrated approach of combining rehabilitation works with capacity building (with the main focus on on-the-job training and coaching, supplemented with classroom training) has proven to be very successful. The recently approved EC-funded Rural Roads Rehabilitation and Maintenance Project (RRRMP) – which will be implemented by ILO – will continue to provide capacity building of small local contractors (integrated with capital investment support for the rehabilitation of 150 km rural roads).

44. Under RRRMP the intention is to engage private training providers for the training of contractors and to provide support to these training providers as well in getting accreditation for the contractors' training modules that will be developed. Certified training courses will be provided by these training providers and upon the successful completion of the certified training courses by the contractors, the intention is to engage them in the rehabilitation works that will be carried out by RRRMP

45. R4D and DRBFC intend to use small local contractors for the rehabilitation of rural road works but there is only a limited availability of compaction equipment (rollers) among these contractors. This is a key constraint that would limit the delivery rate of capital investments through R4D if not addressed. The nation-wide shortage of compaction equipment is also being experienced by the TIM-Works project. TIM-Works has addressed this problem by procuring its own rollers and by occasionally renting some rollers from the DRBFC Regional Offices or from the private sector – when occasionally available[25]. It is noted that – if the TIM-Works project would have had access to more compaction equipment – it is likely that it could have increased its rural roads rehabilitation delivery rate

1.3.6 Procurement Issues

46. DRBFC's performance limitations are not only related to staffing constraints[26] but also influenced by delays in the availability of funds from the state budget[27]. According to MoF such delays

[23] These small NGOs need a license from the Ministry of Tourism, Commerce and Industry to be recognized as official NGO.
[24] In addition TIM-Works has trained more than 50 community-based contractors for routine maintenance operations.
[25] The public and private sector as a whole are facing a shortage of compaction equipment for road works. Experience from TIM-Works indicates that there is hardly any spare capacity of mechanical compaction available at district level. During the design mission an attempt was made to assess the availability of spare compaction equipment among Dili-based construction companies and contractors. The survey indicated that such a spare capacity does not exist.
[26] At central level DRBFC has 13 technical staff and 33 support staff. The total no. of staff at the Regional Offices is 178, of which 45 technical staff (each of the 5 Regional Offices has 1 regional engineer, 1 supervisor per district, 1-3 assistant

are not associated with delays in budget approval (usually approved in January/February) or GoTL cash flow problems (the Treasury maintains a cash flow reserve of at least 3 months) but are due to procedural errors by line ministries in applying for Cash Payment Vouchers (CPVs) which are needed before funds are released. Time-consuming administrative procedures and a top-down decision making structure for procurement and payments lead to delays in delivering investments. There does not appear to be a shortage of GoTL funds for appropriately approved capital investments.

47. The approval of the procurement of works is currently fully centralized within MoI and cause delays in the approval of contracts, works and payments. MoI has not concrete plans at the moment regarding the possible decentralization of the procurement of rural road works. All DRBFC procurement is done at central level by the Directorate of Procurement under the General Directorate of Corporate Services of the Secretary of State for Public Works of MoI. Whereas DRBFC's five Regional Offices were authorized to procure works (up to a certain ceiling) in the past, all procurement by DRBFC has been centralized since 2009[28].

48. At present there are various government channels through which rural infrastructure works can be procured. These are: i) MoI/DRBFC for works with a threshold of a contract value of less than US$ 1 million per contract; ii) the National Development Agency for works with a contract value between US$ 150,000 and US$ 500,000, and; iii) the Ministry of State Administration and Territorial Management (MSATM) for works with a contract value of less than US$ 150,000. Each of these procurement channels have their own specific procurement regulations/procedures and contractual frameworks.

49. The procurement of infrastructure road works with contract values between US$ 1-3 million is handled by the Procurement Commission under the Prime Minister's Office and contracts with a value exceeding US$ 3 million need to be approved by the Council of Ministers. Table 1 summarizes the characteristics of the different procurement channels and contract thresholds that are currently in place for the procurement infrastructure works through the GoTL state budget.

50. Whereas the overall technical responsibility for the implementation of rural road works is with DRBFC, MSATM, ADN and donor-funded projects are also involved in the procurement of rural road works, involving different procurement procedures. This complicates planning, coordination, supervision and quality control and entails the risk of a less efficient utilization of available financial and human resources and capacities. One of the measures undertaken by the GoTL to address this issue is to consolidate the various existing government procurement regulations/legislations (in total 11) in one new legislation. To this effect new draft legislation has already been prepared.

51. As part of the decentralization process, there are several proposals to decentralize and streamline planning and procurement mechanisms. MSATM for example proposes to merge the current conditional (PDD) and unconditional (LDP and MDG Suco Program) grants programs with one system of providing unconditional grants (with a threshold of US$ 500,000 per grant) to the DAs to finance infrastructure investments in the districts through districts' DIDPs (District Integrated Development Plans) that will be developed. These DIDPs will include multi-year planning. The draft legislation for this has been finalized and the planning for 2013 will start in 2012. These grants will be fully managed by the DAs. Envisaged procurement arrangements under the DIDPs will depend on the new government that will be elected in 2012.

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supervisors per district, and 2 database engineers). No HRD needs assessment or HR development plan is available. At present DRBFC is in the process of recruiting diploma level supervisors for supervisory work at district level.

[27] As of 1st August 2011 DRBFC's budget for 2011 was not available yet, affecting the work of the Regional Offices. At the Baucau Regional Office there was no work yet as of early August 2011 for its staff , pending the availability of funds

[28] Since 2009 DRBFC's 5 Regional Offices have no financial authority and procurement is done centrally. In the past Regional Offices were responsible for maintenance but since 2007 this is also centralized. The Regional Offices' current role is limited to assist in data collection (e.g. roads condition surveys), supervision (e.g. supervision of emergency maintenance works), quality control and works certification. Due staff transportation constraints, staff mobility of the Regional Offices is very limited. Laboratories have been set-up at the Regional Offices but are dysfunctional in the absence of qualified laboratory technicians.

52. In addition to the proposed mechanism of providing unconditional grants to the DAs, the plan is to channel conditional grants for infrastructure investments in the districts (with the threshold of the contract value of contracts under these grants set at US$ 1 million) through technical line ministries (in the case of rural roads this would be through DRBFC).

Table 1: Procurement Channels for Procurement of Infrastructure Works through State Budget

	Institution - Agency	Funding Source	Contract amount (US$)	Budgets, Procurement Arrangements and Implementation Responsibilities
1	Major Projects Secretariat	Infrastructure Fund (IF)[29]	> 3 million	
2	Office of PM	Infrastructure Fund (IF)	1-3 million	
3	DRBFC	Annual state budget (including IF)	≤ 1 million	Out of 2010 budget of US$ 72 m, US$ 25 m. was spent[30]. The 2011 approved budget is US$ 40 m. (of which US$ 14 m. from IF). There is no budget allocation in 2011 for rural roads. For emergency maintenance there is an allocation of US$ 5 m. For 2012 US$ 3 m. is proposed for rural road works. All procurement done centrally.
4	MSATM	LDP	≤ 150,000	LDP is a decentralization delivery mechanism[31] implemented since 2010 in all 13 districts. It receives support from UNDP and UNCDF. It provides small grants at district level and below (usually < US$ 25,000 per contract[32]) for the construction of health centres and schools. Hardly any rural road works are included in its portfolio[33]. Budget for 2011 is US$ 3.5 m. US$ 6.3 m. is proposed for 2012[34]. Procurement and implementation done by the district administration through district development committees[35]. LDP placed 4 technical staff in each district. With support from LGSP, district assemblies are set-up on a pilot basis – these assemblies have no legal status yet – and LDP proposals need approval from these assemblies.
		PDD-1	≤150,000	PDD-1 is a decentralization delivery mechanism. It involves Grants for small infrastructure projects in Aldeias, Sucos and Sub-districts. The procurement of contracts < US$ 150,000 is done at local level. For 2011 the budget is US$ 15.5 million. Maximum contract value for Aldeia-level contracts is US$ 15,000. For Suco-level contracts this ceiling is US$ 75,000 and for contracts issued at sub-district level the threshold is US$ 150,000
5	AND[36]	MDG Suco Program	No formal thresholds	The MDG Suco Program is a temporary pilot delivery mechanism. Focus is on provision of housing and small community-based infrastructure. Hardly any rural road works in portfolio. The budget for 2011 is US$ 65 m. (from the IF). Procurement, implementation and management are done by District Administration.
		PDD-2	150,000 - 500,000	PDD-2 is a temporary pilot decentralization delivery mechanism. It is an initiative of the PM for infrastructure projects implemented at district level. Within PDD-2 there are currently no rural road works. The procurement of contracts is done centrally. The 2011 budget is US$ 28.8

[29] The Infrastructure Fund has been set-up for investments in (mainly large) infrastructure projects. The 2011 budget allocation is US$ 599 m., of which 3/4th (US$ 449 m.) is allocated to national electricity generation and transmission infrastructure. US$ 65 m. is allocated to the MDG Suco Program, US$ 44 m. to the PDD and US$ 14 m. for large PW/DRBFC projects exceeding US$ 1m. It is projected that the Infrastructure Fund will increase to US$ 672 m. in 2015.

[30] The apparent large under-spending in 2010 is explained by the fact that a large portion of the budget was allocated for contracts with a contract value exceeding US$ 1 million. The procurement of these contracts is under the responsibility of the Prime Minister's Office (PMO) and the PMO could not manage to procure all the works under these contracts in time.

[31] Recently a draft legislation has been prepared for ministerial comments that defines the levels and structures for a model with funds directed through district (unconditional block grants) and through the technical line ministries

[32] Community contracting for contracts smaller than US$ 10,000. For larger contracts a system of competitive bidding is used.

[33] The district administration office of Viqueque district reported that in 2010 one small rural roads project was implemented but with labour inputs only (no equipment was available) and that the quality of the works was not satisfactory.

[34] Fund allocation is based on the population per district. For example: in 2011 Baucau district received US$ 6.2 per capita (total budget received: US$ 680,000) and Viqueque district received US$ 4 per capita (total budget received: US$ 240,000)

[35] District Development Committees (DDCs) are established in 2011 under new District Decree. The intention is to harmonize the functions of the DDCs (which include the technical line ministries) with the functions of the District Assemblies

[36] Established as of 24th March 2011 per Decree Law No. 11/2011. ADN reports directly to the Office of the PM. Its mandate is to: i) appraise, supervise, inspect and certify the quality of large capital development projects; ii) manage PDD-2 projects that are sub-contracted to local companies, and; iii) provide support to the MDG Suco Program

				m. From 2012 onwards the intention is to decentralize procurement for contracts to district administrations[37]. Implementation is done through local development committees. Operational funds are with technical line ministries (have key role in planning, designing, work supervision and certification). ADN wants to establish permanent presence in districts (now 1 supervisor from the Indonesian Government is placed in each district for quality control regarding electrification, buildings, WATSAN and roads). ADN is in process of recruiting 13 more staff to work in districts and has requested Indonesian Government for 13 engineers.

53. The GoTL is also considering introducing a national community development program to provide funding directly to Sucos (i.e. village-level) for basic infrastructure including rural roads. The program may be in operation in 2013. R4D will need to coordinate with, and possibly support the implementation of this and any other programs the government introduces supporting local level infrastructure development.

54. Current procurement regulations indicate that DRBFC is authorized to procure works with a contract value of up to US$ 1 million. As it is not clear whether DRBFC procurement authority includes (or will include) a lower limit (e.g. US$ 500,000), there could be an overlap with procurement which is currently done through PDD-2 (for contracts less than US$ 500,000) or PDD-1, the LDP (all having maximum contract thresholds of US$ 15,000), or is planned to be done by MSATM at district level through the DIDPs (with a threshold of US$ 500,000 per contract).

55. As part of the decentralization process, the MSATM plans to have municipalities in each of the 13 Districts established by 2014. Once established, these municipalities will assume the current functions of the 13 DAs, including the planning and procurement of unconditional district grants for investments in infrastructure. Whereas budgets under LDP and PDD have substantially increased over the last couple of years, capacity development at local level for procurement under LDP and PDD has however been lacking behind significantly.

56. Effective systems and capacities to undertake procurement by the DAs (and from 2014 onwards by the municipalities) are not in place yet and this poses questions about fiscal integrity and transparency. MSATM has requested that DRBFC establishes capacities at district level to support the DAs with the procurement of infrastructure works – in accordance with DRBFC's technical responsibilities related to the procurement of infrastructure works.

57. To increase its operational capacity at district level DRBFC has indicated its plan to establish offices at district level and diploma-level supervisors are being recruited to be posted at district level. The time-frame for the establishment of district DRBFC offices is not decided yet. At present only the Directorate of Housing and Urban Planning of Public Works has staff posted at district level (working from the office of the District Administrator).

58. Once the district DRBFC offices have been established and staffed, this will enable DRBFC to support the DAs in the procurement of works. R4D's envisaged role at district level regarding procurement issues is to provide capacity building and implementation support to the DRBFC district staff, thereby indirectly also supporting the DAs. In addition R4D also intends to facilitate the coordination between the DAs and the district DRBFC offices on procurement issues and will provide formal training to the DAs on procurement matters.

59. The current situation regarding procurement issues as described in this section indicates that there is a lot of uncertainty at the moment related to the decentralization of procurement and procurement

[37] Procurement arrangements for 2012 are not specified yet. According to the recently prepared draft decree law on procurement the intention is to simplify procurement procedures and will include systems of quotations, negotiations, direct adjustments, competitive bidding and community contracting.

mechanisms. The implication of this for R4D is that the Program needs to build-in sufficient flexibility to cope with possible procurement scenarios and mechanisms that may be established in the near future.

1.3.7 Capacity Building Initiatives

60. The Government's Local Governance Support Program (LGSP) – with is supported by UNCDF and UNDP – is providing support to the central government and the district administrations. It started in 2004 in Bobonaro district and since 2010 it is covering all 13 districts. LGSP provides support in developing competencies and skills at district level in planning, decision making, financial management, procurement, design (AutoCAD) and costing. Since 2009 support is also provided to LDP and PDD.

61. LGSP also provides logistic/transportation support and salary support (funding project staff [38] with remuneration aligned with government salary scales) to the district governments. Training courses are provided by LGSP for district civil servants in areas like accounting and financial management but these courses are of a short duration and more extensive and long-term training is required (also in preparation of the establishment of the municipalities after the envisaged 2013/2014 municipal elections), as was mentioned by interviewed district government staff.

62. As confirmed in meetings with LGSP, with various government representatives at national, regional and district level and with infrastructure development programs and donors, capacity building requirements at national and district level are very substantive. Capacities at district level are particularly very weak (e.g. for planning, procurement, financial and contract management, monitoring and reporting).

63. Over the last 4-5 years DRBFC has received substantial capacity building Technical Assistance (TA) support from JICA, AusAID and ADB. The current JICA *Project for the Capacity Development of Road Works* (July 2010 – July 2013) focuses on improving DRBFC's capacity for the construction and maintenance of road works. Activities include the development of a centrally managed database system for the national roads (including condition inventory[39]). The ADB/JICA "Our Roads Our Future" project includes limited TA capacity building support as well, in particular by involving DRBFC Regional staff in the planning of sub-projects and in procurement.

64. DRBFC plans to use this system from 2012 onwards for annual budget planning for national roads. Now the system is mainly used to identify emergency repair requirements. Through so-called case studies JICA also provides on-the-job training to DRBFC staff. The development of geographic information systems (GIS) is not envisaged by JICA at this stage. JICA also provides support to the two database engineers that are based in each of the five regional offices (transportation and other operational support).

65. AusAID has been providing substantial funding support to DRBFC since 2007 through the ADB-funded Infrastructure Technical Assistance (TA) Programme. No further AusAID support for this program beyond 2011 is foreseen at the moment, aside from a scholarships component that will conclude in 2013. Most of the 15 specialists/advisors under this TA Programme are placed in DRBFC. TA support is provided in developing design specifications and standards [40] for paved and unpaved roads, in developing maintenance guidelines[41] and in supporting project management, contract management and

[38] The GoTL plans to take-over the funding responsibility for the LGSP staff from 2012 onwards.
[39] Road condition inventories for national roads started recently and will be done on annual basis, after the rainy season.
[40] Based on the Indonesian specifications and standards (the so-called 'red book') but allowing for more flexibility in the design, depending on local conditions. Traffic parameters are being considered in setting design standards (but no traffic surveys are currently being carried out). Once the drafting of the design standards has been completed, the intention is to test them first (and modify them, as required) before submitting them to GoTL for endorsement as official standards.
[41] This is done in collaboration with JICA for the maintenance of national roads funded by ADB, JICA and the WB. As such these guidelines cannot be considered as official GoTL guidelines for the maintenance of roads. For rural roads no official GoTL endorsed guidelines exist, but technical guidelines have been developed by the TIM-Works project.

maintenance of ongoing MoI projects, and in the development of a Project Monitoring and Control System (PMCS) and a unit-cost database for national roads.

66. In addition, support is provided in establishing material testing laboratories[42]. The PMCS was launched in August 2011 and the progress on the unit-cost database[43] is approximately 80%. No GIS development is envisaged under the current ADB TA Programme. The PMCS has been endorsed by MoI and includes a contract management database and a contractors' database. Getting good quality data and introducing a discipline throughout MoI to use the PMCS are key challenges that the ADB TA Programme is facing. The PMCS appears to be a very useful management information tool that can also be used by DRBFC for managing and monitoring investments in the rural road sector[44]. Whether the PMCS – or a modified version of PMCS – could be used as well for PDD projects to manage and monitor PDD investments in rural roads (and possibly other infrastructure investments) needs to be discussed between MoI and MSATM.

67. Whereas substantial TA has been provided over the last 4-5 years to DRBFC at central level, to a large extent this TA has been providing capacity substitution rather than capacity development. The TA has not been integrated within the organization structure of DRBFC but has been set-up through Project Management Units (PMUs). This, combined with the very low absorption capacity within DRBFC for capacity development and the very high workload among DRBFC staff at central level, has made the TA less effective in terms of building sustainable capacities within DRBFC. From discussions with DRBFC staff and the ADB/AusAID and JICA TA staff it also appears that no effective internal coordination mechanism is in place. DRBFC staff indicated they do not always feel sufficiently involved and consulted regarding the work done by the TA staff.

1.3.8 Environmental Safeguards and Climate Change

68. The Directorate of the Environment (DoE) under the Ministry of Economy and Development's Secretary of State of the Environment has the responsibility to ensure that environmental impact assessments (EIA) or initial environmental examinations (IEE) are conducted and that – depending on the outcome of such EIA's – that Environmental Management Plans (EMPs) are prepared and implemented. DoE works in the areas of EIA, pollution, climate change and bio-diversity. EIA and EMP requirements are covered under the new Decree Law No. 5 / 2011 of 9 February on Environmental Licensing.

69. Technical line ministries like MoI are supposed to undertake an EIA or IEE for projects and should submit an EMP for projects classified in category A or B[45]. EIAs are required for the construction of new rural roads with a length exceeding 30 km. For the rehabilitation of roads – with the exception of

[42] During a visit to the DRBFC Regional Office in Baucau it was mentioned that the established materials testing laboratory was not function because of a lack of qualified staff. A very quick inspection of the central materials testing laboratory in Dili also indicated that a lack of qualified staff appears a key bottleneck to the effective utilization of this established facility.

[43] In fact this is an excel sheet. For the rate analysis of the different items of work, information on wages is obtained from SEFOPE (currently a monthly wage rate of US$ 115 for unskilled casual labour is used), information on the cost of non-local construction materials is provided by the Ministry of Tourism, Commerce and Industry and costs of local constructions materials, haulage costs, local rental costs, etc. are derived from surveys done by DRBFC (maps are also being developed that show the locations of possible quarries; materials in these quarries have however not been tested). The Directorate for Corporate Services within the Secretariat for Public Works undertakes quarterly updates of the rate analysis. The ADB TA reported that the unit-cost database can be modified to include items of work that are specific to the application of labour-based construction methods.

[44] PMCS is well designed and has functionalities to enter key information required to monitor financial progress and the progress of contracts. It also provides the possibility of tracking the number of labour-days (gender-specific) generated through the implementation of contracts. One feature that may have to be added is the inclusion of information on contract variation orders.

[45] The Decree Law No. 5 / 2011 on Environmental Licensing distinguishes projects in 3 categories: A, B and C. The classification of projects depends on the size of the potential environmental impacts that correspond to different legal requirements for environmental licensing of projects. Category A includes projects that may potentially cause significant environmental impacts and require an EIA. Category B projects include projects that may cause environmental impacts and are subject to an IEE. Category C projects are projects where environmental impacts are negligible or non-existent and are not subject to any procedure for environmental assessment.

community roads – IEEs need to be done. To ensure that R4D is compliant with DoE's requirements it is therefore important that a differentiation is made between rural roads and community roads in DRBFC's road classification. At present no such distinction is the road classification is available. This issue will need to be addressed as soon as possible – even before the scheduled start of R4D – to ensure that the Program will be able to meet environmental requirements for selected road works.

70. Because of capacity constraints within DoE and the technical line ministries it seems that environmental project issues are not always addressed. During meetings with the district administrations of Baucau and Viqueque district, it appeared that the district administrations are not well aware of environmental project requirements.

71. The recently endorsed Strategic Development Plan (SDP) 2011-2030 includes the intention of better enforcement of current environmental laws and regulations and the preparation of comprehensive environmental protection and conservation legislation necessary to meet constitutional and international obligations. This will include an Environmental Basic Law that will form the legal framework to protect and conserve the environment and an Environmental Impact Law to ensure environmental approval, monitoring and auditing of proposed activities. The SDP also mentions the importance of integrating environment and natural resource management across government and to improve institutional and staff capacity in environmental management.

72. On climate change the GoTL has developed a National Adaptation Program of Action (NAPA) on Climate Change. An electronic version of the NAPA is available on the website of UNFCCC[46]. The NAPA identifies national priorities to address climate change adaptation and measures to monitor the implementation of adaptation measures. The NAPA has been prepared by the State Secretariat for Environment located within the Ministry of Economy and Development (MED) of the GoTL.

73. The NAPA preparation process has closely followed the guiding principles outlined in the annotated guidelines of the Least Developed Countries (LDC) Expert Group (LEG) established under the United Nations Framework Convention on Climate Change (UNFCCC). A central element of the Timor-Leste NAPA has been the establishment and active participation of six dynamic Sector Working Groups on food security, water, health, disasters, biodiversity and infrastructure. Members were drawn from across government, universities, national and international NGOs, donors, the private sector, international organizations and youth. Focal points from these groups were also actively engaged in consultation at the district level.

74. According to the NAPA, climate change in Timor-Leste is expected to lead to increases in rainfall patterns and intensity, more intense storm activity and increased temperatures and dry conditions. The effects of these climate changes that are relevant to the rural roads sub-sector include increased damage to infrastructure (including rural roads and associated appurtenant structures like bridges, culverts, retaining walls) because of increased flooding, increased surface water run-off, damage to road surfaces during extreme heat events and an increase in the occurrence of landslides.

75. A report of September 2010 on projections of future climate change in Timor-Leste, prepared by the Commonwealth Scientific and Industrial Research Organisation (CSIRO[47]) for the Department of Climate Change and Energy Efficiency of the Government of Australia also projects that average annual rainfall will increase over the long term. According to the projections these increases are likely to occur in those months with already relatively high rainfall. Extreme rainfall events are likely to become fewer but more intense. The report also mentions that Timor-Leste can expect an increase in temperature and an increase in the intensity of cyclone activity.

[46] unfccc.int/resource/docs/**napa**/tls01.pdf
[47] An electronic copy of the report is available on the CSIRO website: www.csiro.au

76. Adaptation measures recommended by the NAPA that are relevant to the rural roads sub-sector include: i) the development and immediate implementation of project-based activities to adapt to climate change and climate variability; ii) a review of existing laws, regulations and standards to enhance Climate Change (CC)-resilient infrastructure; iii) passing new legislation to strengthen and guarantee national regulations on quality of materials, building codes and practices, and law enforcement, and; iv) improve physical infrastructure/civil engineer and natural vegetation methods to prevent landslides in hill sites, roads and riverbanks.

77. At present however there no institution within GoTL to address climate change issues and there are no specific climate change provisions like laws, regulations, policies, plans or programmes. Capacities within related institutions (like DoE) to formulate climate change related laws, regulations, policies and programmes are very weak.

78. AusAID plans to support further analysis and science capacity building on climate change under a Timor-Leste component of the Pacific-Australia Climate Change Science and Adaptation Program that will commence in 2011. This program will liaise closely with relevant GoTL agencies and AusAID-funded programs where climate change is an issue so that these agencies and programs understand the latest climate change projections for Timor-Leste and R4D will establish and maintain a liaison with this AusAID initiative to ensure that necessary climate adaptation measures can be timely identified and integrated in the design of the rural road works.

79. Coordination among relevant institutions in relation to climate change issues remains a challenge in Timor-Leste due to the absence of a legal mechanism or a basis for cooperation. Within MoI and DRBFC there are no plans available that take into account climate change issues in relation to the development and management of infrastructure or that reflect the recommendations made by NAPA.

80. For budgeting purposes R4D will use a unit-cost rate for rural road rehabilitation works that is significantly higher (i.e. US$ 50,000/km) than the unit-cost rate for rehabilitation works under TIM-Works (i.e. approximately US$ 25,000/km). This increased unit-cost rate reflects the need for more robust road construction (including the provision of adequate structures for drainage, slope stabilization and the pavement of critical road sections), the incorporation of additional items of works related to occupational safety & health and decent working conditions, and a provision to incorporate elements in design to accommodate 'climate proofing' requirements (e.g. more and/or larger lateral and cross-drains to ensure a safe and quick disposal of surface water run-off throughout the life-time of the road).

1.3.9 Social Safeguards

81. Whereas the GoTL has developed various legislation in support of the promotion of social safeguards (including gender equality, the prevention of child labour, working conditions, awareness raising about HIV/AIDS and disability), the effective adherence to these social safeguards is hampered by current implementation constraints and a lack of awareness. Annex 20 provides an analysis of current social safeguard issues in Timor-Leste and the current status of legislation and initiatives in this area. The analysis also includes aspects that relate to women's current constraints that are caused by the absence of adequate rural road access.

1.4 Priorities of the Australian Government and the UN

82. Improving infrastructure, including through labour-intensive initiatives, is a key objective in the *Australia Timor-Leste Country Strategy 2009 – 2014.* A key priority for the Australian Government is building local capacities so that Timorese professionals can work on Timorese challenges. The strategy emphasizes the need for strong donor coordination to help ensuring real progress on national priorities and to avoid the creation of unsupportable financial obligations for GoTL. Australia aims at playing a stronger role in donor coordination, policy analysis and policy dialogue.

83. R4D is well aligned with outcome 2 of the United Nations Development Assistance Framework: *By 2013, vulnerable groups experience a significant improvement in sustainable livelihoods, poverty reduction and disaster risk management within an overarching crisis prevention and recovery context.* The program also contributes to ILO's Decent Work country outcomes relating to increased rural employment and improved safety nets through infrastructure investment, livelihood improvement and local business development[48].

1.5 Related Donor-supported Programs and Projects

84. Road sector development in Timor-Leste still relies heavily on external assistance. Support mainly focuses on up-keeping the main roads with only a few projects (like TIM-Works) focussing on the improvement and maintenance of the rural roads network and related capacity building activities.

85. Donor coordination exists through the monthly Infrastructure Donor meetings – which includes activities in the road sector as well but no formal coordination mechanism exists between the GoTL and donors regarding investments and investment strategies for the roads sector. Neither is there an effective formal mechanism to facilitate a policy between GoTL and donors/projects regarding strategic issues like funding rural roads investments, setting standards, the development of required climate change decrees/regulation, or developing capacities to ensure adequate enforcement of relevant decrees (like the decree on environmental licensing).

86. Coordination between DRBFC and the different rural road projects (including capacity building projects) is lacking and there is not much exchange of information between DRBFC and the different projects. No formal coordination mechanism is in place to ensure that the different projects (like TIM-Works, Our Roads, - Our Future and RDP-III) work towards a harmonization and standardization of procedures, systems and standards under the guidance/direction of DRBFC. There is also no formal coordination between the TA projects like the JICA and the ADB/AusAID TA projects within DRBFC. Due to the lack of effective coordination and direction (by DRBFC), there are substantial differences between the various projects regarding approaches, procedures and standards used[49]. It also appears that the lack of coordination and information exchange affects the efficiency of the use of TA resources available to DRBFC.

87. Completed and on-going related key donor-supported programs and projects in the road sector include projects and programs supported by ADB, AusAID, JICA, the World Bank, the EC, Norway and Ireland. The paragraphs below describe some of the features of currently on-going road projects that are relevant to R4D. A description of the ADB/AusAID and JICA TA capacity building programs that support DRBFC are also presented in the paragraphs below. Concerning its relevance in terms of lessons learned from the design and implementation of a nation-wide rural infrastructure sectoral program, the design team also met with the AusAID supported Rural Water Supply and Sanitation Program (BESIK) and a succinct summary of key features and lessons learned that are relevant for the design of R4D is also presented.

88. With a budget of US$ 11 million, **TIM-Works** is currently the largest program in the rural roads sub-sector in Timor-Leste. Lessons learned from TIM-Works and relevant design and implementation aspects that have proven to be successful in TIM-Works, are reflected in the design of R4D. TIM-Works is a rural road rehabilitation/maintenance and capacity building project. TIM-Works is co-funded by the

[48] The 2008-2013 ILO DWCP for Timor-Leste is based upon and aligned with key national development priorities as defined in the GoTL National Development Program. Priorities of the DWCP that are of key relevance to R4D are: i) infrastructure development; ii) economic growth; iii) employment and skills development for youth. Inter-connected priorities for realizing *decent work* and poverty reduction in Timor-Leste during ILO's *Asian Decent Work Decade* are also reflected in the DWCP.

[49] Like differences in road selection procedures, daily wages for construction workers, job recruitment and rotation procedures for construction workers, design and construction standards, quality control and quality assurance procedures, maintenance systems, contracting procedures and formats, remuneration of government counterpart staff co-sponsored by the projects.

EC, AusAID, Norway, Ireland, and GoTL. TIM Works is designed to contribute to the Government's priorities of creating employment, reducing poverty, stimulating economic growth and increasing social stability. At the time of the formulation of TIM-Works it was decided that SEFOPE would be the most appropriate and best positioned formal implementation partner for the Project considering the emphasis of the Project on the employment dimensions and the already existing collaboration between SEFOPE and the ILO through the Youth Employment Promotion Programme (YEP), facilitating a quick start-up of TIM-Works.

89. TIM-Works was designed as a 'primer' for a large scale public works programme and for this reason its implementation period has been limited to 3 years The Project is operational in all 13 Districts[50]. TIM-Works started in September 2008 and is expected to be completed in February 2012. Its goal is to contribute to economic development and poverty reduction by spurring growth in the infrastructure sector. The immediate objective of TIM-Works is livelihood improvement and social stability in rural communities through rural development and employment generation.

90. Targeted outputs include the rehabilitation of 300 km of rural roads and the maintenance of 2,000 km of cumulative rural roads, using labour-based technologies. Rehabilitation works were initially being implemented through force account but have been sub-contracted increasingly to small local contractors as their capacities increased. Routine maintenance works are implemented through community-based maintenance approaches and modalities. Employment generation, capacity building for infrastructure providers in the private[51] and public sectors, and the adaptation of policies and regulations for further up scaling of labour-based methods are other targeted outputs of R4D. The ILO's effectiveness in implementing TIM-Works was confirmed by the findings of the independent mid-term evaluation and the results oriented monitoring mission engaged by the EC.

91. According to the independent mid-term evaluation of TIM-Works, the Project has adopted an effective integrated construction and capacity building approach. Small contractors receive extensive on-the-job training in planning and implementing labour-based road rehabilitation works. The mid-term evaluation of TIM-Works considers the Project's overall implementation approach efficient, effective and well-balanced and designed interventions make optimum use of the locally available capacities, resources and skills using appropriate labour-based (equipment-supported) approaches, technologies and design standards. The mid-term evaluation mentions that the overall quality of the inspected works is considered satisfactory but that there is a need for continued (and increased) attention to further increase the quality of the works and to ensure that sound environmental practices are being applied[52].

92. Lessons learned from TIM-Works, as well as from similar programs elsewhere in the world, indicate the appropriateness, cost-effectiveness, feasibility and replicability of: i) the application of labour-based approaches for the rural road works envisaged under R4D; ii) the quality control and quality assurance methods used in these programs; iii) capacity building methods that include a strong emphasis on on-the-job training and coaching, supplemented with class-room training, and; iv) the targeting of beneficiaries in the creation of short-term employment (with youth and women constituting respectively 50% and 30% of the labour-force in TIM-Works and substantial cash injections in the local economy realized through the transfer of cash wages and the involvement of small-scale local contractors

[50] Road rehabilitation works are implemented in 9 districts; Aileu, Baucau, Dili, Lautum, Bobonara, Liquica, Manatutu, Viqueque, Oecusse. Maintenance activities cover all 13 districts.

[51] Including the training of 19 small local contractors in rehabilitation works and more than 50 community-based contractors for routine maintenance works. .

[52] These relate to the excavation from quarries, the quality of compaction, the quality of the gravel, the quality of the side drains, the location and downstream protection of cross-drainage structures, the quality of culverts and accessibility issues at sections along the road alignment that have a very steep gradients.

93. According to the mid-term evaluation the training approach and the training materials developed and used by TIM-Works are effective and relate well to actual training requirements and this is reflected in the overall satisfactory quality of the works. The mid-term evaluation also found that the technical guidelines, contracting guidelines, specifications and procedures that have been developed by TIM-Works to guide the planning, procurement, and implementation and supervision of the works very comprehensive.

94. The decision to implement the Project with SEFOPE as implementing partner was considered practical and justified by the mid-term evaluation but for the longer-term it was recommended to implement programmes like TIM-Works through DRBFC, being the official owner of the classified road network in Timor Leste and being responsible for the development and maintenance of the road network. This would also enhance the longer-term technical and institutional sustainability of the labour-based work methods and approaches that are now being applied successfully by the TIM-Works Project according to the mid-term evaluation. According to the mid-term evaluation a transition of rural road investment and capacity development projects to DRBFC would also facilitate the planning, programming and coordination of investments in rural roads infrastructure.

95. Considering the short implementation period and the challenging environment in which TIM-Works is being implemented, the mid-term evaluation commented that it is not realistic to expect that TIM-Works interventions can be sustained or expanded after its completion without continued follow-up, external inputs and support. Based on international experiences and considering the current low level of (delivery) capacities in Timor-Leste, the mid-term evaluation recommended that a minimum gestation period of 10 years is likely to be required to establish sustainable capacities within DRBFC for the implementation of large scale public works programmes.

96. The US$ 3 million JICA-funded and ADB-implemented Project ***Our Roads, Our Future*** – *Supporting Local Governance and Community-Based Infrastructure Works* is a 4 year project implemented in Bobonaro, Covalima and Oecussi Districts to support labour-based maintenance and rehabilitation of rural feeder roads. It started in March 2010 and will be completed by January 2014. At present the project has contracted 37 crews of local people (11 members per crew; on average 50% of the workers are women) to implement unskilled works[53]. These crews are employed for the duration of the works[54]. For skilled works (like bridge construction) local contractors are used. The project staff is not familiar with the work/approaches done by TIM-Works. The district administration and the DRBFC regional offices are involved in the selection of the roads and guidance is also provided by the draft rural roads master plan that has been prepared with EC financing. During the first year of implementation the project fully pays the staff salaries. The intention is that the government will start paying 25% of the staff costs in year 2 and fully from year 3 onwards.

97. **RDP-III**, financed by the EC, is implemented in Manufahi district and includes a small rural roads rehabilitation component (with a target of 45 km of rural road rehabilitation). RDP-III started mid-2010. The selection of roads is done in close consultation with the district administration and agricultural extension workers, and through workshops. Rural road rehabilitation works are contracted to small local contractors RDP-III is using unit cost rates for rural road rehabilitation that are significantly higher than those used by TIM-Works (US$ 100,000 per km versus US$ 25,000 per km). For maintenance works RDP-III contracts local communities. The unit cost rate for maintenance works in RDP-III is US$ 120/km/month. In TIM-Works maintenance activities are estimated at US$ 400/km/year (or US$ 33/km/month).

[53] The project pays a daily wages for unskilled labour of US$ 4 (of which US$ 1 is to be saved mandatory by the workers in bank accounts that have been opened for the work crews); this is US$ 1 higher than the wage rate paid by TIM-Works.

[54] Crews are selected in close consultation with the Suco/Aldeia; poor people are identified and they are selected through a lottery system. This approach is very different from the one used by TIM-Works where labourers are rotated every 80 days to give more people in the local community the chance to benefit from short-term employment opportunities.

98. The design and structure of **BESIK,** the AusAID funded and implemented Rural Water Supply and Sanitation Program which started its implementation in April 2007, provided useful guidance in the design of R4D. BESIK is working in partner ship with both the Ministry and Health and the Ministry of Infrastructure through the National Directorate of Water and Sanitation (DNSAS). It provides support across most aspects of the rural water supply, sanitation and hygiene sub-sector. For example, it provides both direct delivery of water supply systems as well as capacity development[55]. It developed various procedures, systems and standards (for example for quality control/assurance, unit-cost rates and BoQs) and for policy and strategy development. Obtaining approvals at Ministry level for adopting various procedures, systems, standards and policies[56] took a long time[57]. At present BESIK does not include direct budget support to GoTL.

99. The profile and perceived effectiveness of BESIK is enhanced by its direct development and implementation of rural water supply systems – rather than just focus on capacity development. BESIK has assisted with the deployment of additional MoI staff to work at the district and sub-district level, including District Technical Officers in each district (SAS) office. These officers work on survey and design, and supervision of rural water system construction.

100. BESIK has also deployed 88 Sub-District Facilitators that assist with community engagement in the planning, design, operation and maintenance, and monitoring of water systems, including the establishment of community water user groups. BESIK provided training – including gender equality training – and mentoring support and initially funded these positions. They are now funded by the GoTL. In the case of the District Technical Officers this took only a few months, in the case of the Sub-District Facilitators it took two years.

101. The Sub-District Facilitators and NGOs facilitate and support the preparation of Community Action Plans (CAP). A lot of implementation/construction mistakes are made at local level that could be avoided if contractors followed standards. BESIK experienced that policy dialogue helped to increase funding allocations for capital works and maintenance and other recurrent costs.[58]

102. BESIK has assisted the government to implement its own rural water supply systems. In this case BESIK assists with community engagement, survey and design and supervision of capital works. For the tendering for the construction of BESIK funded water systems it directly engages NGOs. BESIK provides funding to the DNSAS to contract NGOs/contractors (through a process of pre-qualification) to engage with communities. Involving the communities is leading to greater accountabilities for service delivery, with communities telling sub-district administrators when they are unhappy with works. District administrators are generally under a lot of pressure to spend funds and it is hard for District Technical Officers to stand up to the DA on not signing off for poor or incomplete works. Overall, rural water systems that BESIK has assisted to construct or rehabilitate have shown a greater degree of functionality and sustainability.

103. DNSAS initially had its own state capital investment budget but this budget is now channelled through PDD. Whereas it is not expected by the BESIK management that districts will adopt the BESIK

[55] An issue in providing training to Government staff is the payment of per diem: BESIK's policy is to try to avoid paying per diem but practically this is not always possible. Practical and flexible solutions are required according to BESIK, keeping in mind sustainability issues but also avoiding that per diem issues become an obstacle of participation by trainees.

[56] Involving senior ministry decision makers in international forums proved to be an effective instrument for policy advocacy and development (because of commitments made during such forums by e.g. ministers.

[57] But the program expects that with the recent official endorsement of the SDP 2011-2030 this will become easier in the future.

[58] The case was built through research that many water systems were breaking down which showed that East Timor would have met its MDG target if all systems were working – BESIK established a system to track the functionality of systems by Aldeia (sub-village).. The current maintenance system is not the best – it relies on communities to undertake minor repairs and inform officials of the need for more major repairs. BESIK will pilot other approaches (e.g. concessions).

approach for contracting and contract management, there is the expectation that it is possible to reform the contracting approach under PDD.

104. BESIK has a gender strategy and its guidelines and standards talk about women as decision makers. The program insists on gender-inclusive training[59]. Training is a much as possible conducted at sub-district level as this makes it easier for women to attend because women are facing more mobility constraints than men. In decision making processes in the Community Groups women are the key decision makers and these groups consist for about 60% of women and 40% men.

105. BESIK's approach to climate change includes the placement of a Climate Change and Water Resources Adviser based within the National Directorate of Water Resource Management. The adviser is assisting the drafting of a water resources management policy and law, training staff in the Directorate on water resources and climate change issues, and working with Geoscience Australia (who are separately funded by the Australian Government) to assess the vulnerability of groundwater resources to climate change.

1.6 Target Groups

106. The ultimate **beneficiaries** of R4D are the **rural women, men and children** living in the areas of influence of the roads that will be rehabilitated and/or maintained in all of the country's 13 districts where R4D will be operational. They will benefit from the improved road access to social and economic facilities and services and related spin-off effects. R4D's road rehabilitation and maintenance works will also provide short-term employment opportunities to rural women and men and this will provide income generating opportunities for the local workers who will be employed during the implementation of the works and an injection of funds into the rural economy.

107. The **primary and key recipients** of R4D are the **staff of DRBFC**[60] who will be benefiting from the program through enhanced capacities in planning, budgeting, programming, contracting, implementing and supervision of rural roads construction, rehabilitation and maintenance works. Considering the envisaged increasing role of DAs under the decentralization process regarding the planning and procurement of infrastructure road works, R4D will also support these DAs in strengthening their capacities in the planning and procurement of rural road works. As such, the DAs are also considered as recipients of R4D.

108. **The small-scale domestic contractors** who will be contracted for R4D are also considered recipients of R4D[61]. R4D will work in close collaboration with the EC-funded Rural Roads Rehabilitation and Maintenance Project (RRRMP) regarding the development of capacities of the small-scale domestic contractors as RRRMP (which is expected to start before the end of 2011) will provide the main platform for building their capacities. To the extent possible and practical, R4D will seek RRRMP's assistance in building the capacities of the small domestic contractors. In the course of procuring and implementing the road works, R4D will – as required – also provide training (mainly on-the-job) to the small contractors, if RRRMP does not have the capacity to meet R4D's demands. With AusAID's primary focus on building public sector capacities and the EC directing its support towards the development of capacities in the

[59] Where for example two training places are available at a certain level the project would only pay for both if one was a woman.
[60] This will initially be for staff at central and regional level. Within the context of the decentralization process it is expected that DRBFC may be establishing capacities at district level as well that will be required for the implementation of investments in rural roads development and maintenance and – once these staff are placed – they will also be among R4D's recipients.
[61] Whereas R4D intends to draw extensively on the use of contractors that have been trained under TIM-Works and on contractors that will be trained under the forthcoming EC-financed Rural Roads Rehabilitation and Maintenance Project (RRRMP), R4D will adopt an inclusive competitive bidding process that involves pre-qualification. This means that contractors who have not been trained by TIM-Works or RRMP but who pre-qualify may also be eligible for the implementation of contracts. As these contractors may be lacking specific knowledge related to the use of labour-based approaches and technologies, R4D has the provision to provide such training (mainly through on-the-job training) to those contractors.

private sector, this provides a good opportunity for effective donor harmonization in complementing efforts in strengthening both the private and public sector.

109. There is a relatively high presence of small local women contractors in Timor-Leste and these women contractors – subject to their successful pre-qualification – will have equal access to bid for works under R4D. Based on experiences with TIM-Works and other rural road projects in Timor-Leste it is expected that up to 1/3rd of the contractors who will be eligible to bid, will be female contractors.

1.7 Implementing Partners and Partnerships

110. As discussed and agreed during the conception stage of R4D the MoI, through the DRBFC, will be the Government Executing Agency for R4D, with the ILO as AusAID's Implementing Partner. Given its experience, technical expertise and demonstrated performance in labour-based rural roads development and capacity building projects in Timor-Leste and internationally, the ILO is the most appropriate implementing partner for R4D. A summary of ILO's experiences and expertise, both in Timor-Leste and internationally, is presented in Annex 4.

111. Considering the envisaged future role within the decentralization process of the ADN, the MSATM and the district administration regarding the planning, procurement and monitoring of infrastructure investments, including investments in rural roads and maintenance, it is important that a close liaison and coordination system is established and maintained by R4D with these institutions. Whereas the main focus of capacity building within MoI will be on DRBFC, close coordination will also be maintained with the MoI directorates for procurement, planning, research & development, and budget & finance. As relevant and required, R4D will also provide and/or facilitate capacity building support to these directorates if this is considered essential for the effective planning, budgeting, programming, contracting and implementation of investments in rural road development and maintenance.

112. The Contractors Association of Timor-Leste (AECCOP – Association Entrepreneurs Civil Construction Obras Publicas) welcome the R4D as a very important initiative for the private construction sector in Timor-Leste as road works under R4D will be implemented through involvement of small-scale contractors using employment-intensive approaches for construction and maintenance. R4D will serve as an instrument for employers' organizations to become partners in generating new sources of employment. Furthermore, the involvement of AECCOP in tri-partite consultations between AECCOP, R4D and other concerned stakeholders (and projects) will be promoted in particular regarding the development of (pre-) qualification requirements of contractors for the works envisaged under R4D and contract formats for the types of works envisaged by R4D. AECCOP also expressed its interest in support from R4D in completing the contractors' classification system.

113. Consultations with the Worker's Confederation in Timor-Leste (KSTL - Konfederasaun Sindikatu Timor-Leste) confirms their support of the program and their acknowledgement of the importance of programs like the R4D in providing improved access to markets and other economic and social facilities and services for the rural population and more job opportunities created in the districts. Further close coordination and liaison with KSTL is envisaged to ensure that measures are taken that promote adherence to decent work standards including timely and full payment of wages, the provision of health kits and the provision of basic facilities at the worksite and child-care arrangements, ensuring that occupational safety and health requirements are being followed and measures that prevent child labour is implemented in the works. The R4D will also introduce ILO's fundamental social standards, e.g. through developing and introducing – together with government agencies, employers' and workers' organization – contract documentation with clauses related to minimum wage, minimum age, non-discrimination and injury insurance.

114. Modalities for community consultations and social dialogue at the local level will be developed in the Social Safeguards Framework (SSF) during the inception phase under the responsibility of the ILO R4D Community Development / Gender Specialist. The SSF will be based on ILO's guidelines and

procedures for social safeguards and that provides general policies and guidelines to protect human health, avoid conflict among community members and strengthen community social cohesiveness. Gender, child labour, disability, labour standards and occupational health and safety issues will be incorporated in the SSF, in accordance with the principles set out in the relevant ILO conventions[62] and following relevant ILO guidelines.

115. Other stakeholders and support-holders with which R4D will coordinate and liaise its activities are the National Directorate of Rural Development (NDRD)[63] under the Ministry of Economy and Development, MoF[64], the Secretariat for Vocational Training and Employment SEFOPE[65], the Secretariat of State for the Promotion of Equality (SEPI), donors and other relevant (donor-supported) projects and programs.

116. Whereas the recently approved EC-financed Rural Roads Rehabilitation and Maintenance Project is focussing on building capacities in the private construction sector (along with the delivery of capital investments by the rehabilitation of approximately 150 km of rural roads), R4D focuses on building capacities in the public sector – in particular within DRBFC – along with the delivery of capital investments in rural road rehabilitation and maintenance. As such RRRMP and R4D are supplementary to each other and it is very important that an effective coordination between these RRRMP and R4D is maintained to maximize synergies and complementarities. ILO is the implementing agency for both RRRMP and R4D and this is expected to facilitate coordination and liaison.

117. R4D will have a leading role in coordinating activities with other donors and projects. For this purpose a MoI-chaired Program Steering Committee (PSC) will be established. Apart from its specific role directly related to R4D's direction, progress and performance[66], it will also have a broader function of leading coordination efforts and policy dialogue for the rural roads sub-sector in Timor-Leste, with the aim of accelerating the development of rural road access and improving the overall effectiveness and sustainability of the interventions of the various stakeholders in the rural roads sub-sector[67]. A more detailed Terms of Reference for the PSC will be developed at program inception. Apart from MoI it is proposed that MSATM, ADN, AusAID and ILO participate as permanent members in the PSC. The PSC membership should be revisited post-election to reflect any changes to the institutional structure. As required, the PSC will also invite other key stakeholders – including donors – to attend the PSC meetings and participate in discussions on strategic and operational issues related to the planning, budgeting and management of investments in rural road infrastructure, and associated capacity development issues, in Timor-Leste. The PSC will meet six-monthly unless its members decide otherwise.

[62] Relevant ILO conventions regarding social safeguards include the following: i) Hours of Work (Industry) Convention (No.1); ii) the Weekly Rest (Industry) Convention (No.14); iii) the Forty-Hour Week Convention; iv) the Minimum Age (Industry) Conventions (No.59 and No. 138); v) the Forced Labour Convention (No. 29); vi) the Equal Remuneration Convention (No. 100); vi) the Elimination of Discrimination Convention (No. 111); vii) the Minimum Wage Convention (No. 131); viii) the Convention on the Payment of Wages (No. 95), and; ix) the Convention on Safety and Health (No. 167).

[63] NDRD is in charge of studying and executing rural development policies, as well as preparing, implementing and monitoring development regulations and rules in rural areas. NDRD is also entrusted with the responsibility of supporting rural communities to actively participate in the process of planning local economic development in Timor-Leste rural areas.

[64] Considering MoF's key role in the appraisal and approval of budget proposals, it is of eminent importance that close liaison and policy dialogue is established and maintained with MoF to ensure compliance of budget proposals with MoF's requirements and to raise awareness and recognition of the high priority of investments in rural roads development and maintenance.

[65] With support from the ILO, SEFOPE is currently in the process of drafting a National Employment Strategy. Optimizing synergies, where possible and relevant, between R4D and GoTL's implementation of the National Employment Strategy (once finalized) could significantly contribute to GoTL's overall employment targets as the provision of adequate rural roads access is considered a key trigger in boosting local economic development and associated sustainable employment creation.

[66] Responsibilities of the PSC directly related to the implementation of R4D include monitoring and overseeing at national level the overall performance and progress of R4D against its design, objectives and R4D's Annual Work Plans (AWPs), providing overall guidance and direction regarding the implementation of R4D and coordination with R4D's key stakeholders.

[67] This will also include activities that aim at synchronizing and complementing activities, harmonizing approaches, and standardizing procedures, specifications and methodologies.

118. Promoting awareness and recognition among legislative bodies and MoF about the importance of adequate funding for the improvement and maintenance of the rural roads network – as a pre-condition to local economic development and poverty alleviation – needs to be given much attention as these institutions play a key role in the approval of annual budgets of line ministries. This would also require an increase in capacity within MoI to prepare well prepared information-based budget proposals and to effective engage with GoTL's budget decision-makers through policy dialogue and knowledge management related activities with these decision-makers.

2 Program Logic and Logical Framework

2.1 Introduction

119. This chapter defines the program logic for R4D and its logical framework. The basic approach to the program design is guided by the International Labour Organisation's (ILO) Technical Cooperation Manual. The underlying basis for the design was described in the R4D Concept Note, May 2011, and has been further refined through consultations, an analysis of key design issues, and dialogue during a design mission in August 2011.

120. R4D reflects the priorities of GoTL and the Australian Government and recognizes the importance of providing and maintaining adequate rural road access to the rural population of Timor-Leste as a key pre-requisite for local and equitable economic development, poverty alleviation and gender equality. R4D is designed to become the leading nation-wide program in the rural roads sub-sector in Timor-Leste, covering all the 13 districts. R4D's main thrust is to enable the GoTL to effectively and equitably plan, budget and implement investments in rural road construction, rehabilitation and maintenance by developing and institutionalizing the required capacities and instruments. R4D's capacity building activities are aligned with GoTL's decentralization process. Considering the uncertainty of the direction and pace of the decentralization process, R4D's design incorporates sufficient flexibility to ensure that its interventions can respond to the actual situation on the ground.

121. R4D is designed for a period of 4 years. However, as significant capacity issues exist within key stakeholders and partners that limit GoTL's efforts to plan, maintain and develop a rural roads network across the country, the achievement of the objective (i.e. the outcome) of R4D may require an 8-years time horizon. During the 3rd year of implementation an independent joint GoTL/AusAID/ILO mid-term evaluation will be undertaken which will also include a review of the continued relevance, progress and performance of R4D – against agreed performance indicators. If the outcome of this mid-term evaluation – supported by findings from planned annual monitoring missions by an AusAID/ILO Independent Monitoring Group (IMG) – recommends a continuation of R4D, AusAID may extend funding for R4D for another 4 years.

122. The design logic of R4D is summarised in Annex 11 in a Logical Framework Matrix (Logframe) based on ILO guidance[68]. Further details about the performance measurement arrangements are provided in chapter 8 (Monitoring and Evaluation) and Annex 12 which presents the M&E framework.

2.2 Objective and Expected Results

123. The overall development goal to which R4D will contribute is:

Women and men in Timor-Leste are deriving social and economic benefits from improved rural road access.

[68] ILO (2010) *PARDEV: ILO Technical Cooperation Manual, Version 1*, Geneva, p 31 – 104

124. The development goal explicitly anticipates benefits for women and men, noting that benefits are likely to have gender dimensions and impacts differently for women and men. R4D is a national (GoTL-led) program, rather than a program that targets particular sub-national localities. The focus of program impact is explicitly on people in rural areas of Timor Leste, rather than urban centres. This is consistent with the stated GoTL priority to decentralize governance to local levels. Program impact will be assessed in terms of measurable social and economic benefits experienced by rural households living within the area of influence of the rural road works. The assumption implicit in the goal is that rural road access is a critical factor in enabling social and economic development in rural Timor Leste.

125. The main benefits for women and men in rural Timor-Leste that are expected from the rehabilitation and maintenance of rural roads through R4D are social and economic benefits from improved rural road access. Impact evaluation studies of rural roads projects in Timor-Leste and elsewhere indicate that improved rural road access can have a wide range of livelihood benefits for the rural people using the improved rural roads. These include the benefits of lower transportation costs and reduced travel times on: i) the cost of agricultural inputs and services, agricultural productivity and agricultural outputs; iii) higher farm-gate prices for farmers; iv) improved access to health centres, basic education and local markets, and; v) an increase in local economic activity and an increase in off-farm businesses and employment opportunities. Annex 25 provides an succinct abstract of findings from impact evaluation studies conducted of rural roads programmes and projects in Timor-Leste (TIM-Works Project) and elsewhere (including Sri Lanka, Indonesia, Vietnam, Bangladesh, Cambodia, Nepal) that show the various social and economic benefits for the rural population from improved rural roads access.

126. Impact[69] assessment will involve assembling data from both primary (i.e. R4D/MoI methods) and secondary sources (e.g. surveys by the Directorate of Statistics) to answer two fundamental performance questions:

I. **Has rural road access improved?**
- Kilometres of new rural road *developed* per year
- Kilometres of existing rural road *rehabilitated* per year
- Kilometres of existing rural road *maintained* per year
- Percentage change in the number of vehicles per day using a sample of rural roads
- Percentage change in the volume of good transported using a sample of rural roads
- Average roughness of a sample of rural roads[70]
- Ex-poste quality of road infrastructure (retaining walls, drains, culverts, etc.)

II. **Do rural women and men derive social and economic benefits from improved road trafficability?**
- Average distance/travel time to nearest *market*
- Average distance/travel time to nearest *health facility*
- Average distance/travel time to nearest *school*
- Percentage people that used a vehicle to transport commodities to *market* in past week
- Percentage change in weekly household *expenditure on transport*
- Percentage change in local prices of consumer goods

127. These above indicators[71] will be analysed together from a systems perspective, along with quantitative indicators and qualitative information at the outcome[72] and output level. This will assist R4D

[69] For the purposes of R4D, 'impact' is defined as "significant and lasting changes in the lives of ultimate beneficiaries".
[70] International Roughness Index (IRI) will be calculated using a Roughometer applied to a sample of roads at the same time each year to establish trends in road trafficability.
[71] Whereas the primary focus of the indicators related to distance/time mentioned under question II is on 'time' rather than 'distance', both measures can be captured at the same time without additional cost. The 'distance' indicator may provide additional insights when improved road access leads to the establishment of *new* markets, health facilities and schools. Another

and its stakeholders to understand the key factors that are enabling or inhibiting progress towards the overall development goal.

128. An Annual Rural Roads Accessibility Assessment (ARRAA) will collect a raft of road quality metrics and household socioeconomic data from a sample of road works contract packages supported by R4D. Whereas the ARRAA is a separate M&E process, the information generated by it will be part of the information database of R4D's overall Management Information System.

129. The indicators used to answer the above questions are proxy indicators for social and economic benefits arising from improved rural road access. They are necessarily simple[73]. The 3 indicators proposed under question II related to changes in the percentage of people using a vehicle to transport commodities and the percentage change in expenditures on transport and in the local price of consumer goods will highlight changes in household economics, which at the aggregate level, can be used to show a plausible relationship to improved rural road access.

130. It is well established that improved road access leads to improved road usage, which plausibly leads to increased household economic activity. It can be expected to see a relative change in household economic activity in areas where road works have been completed; namely: i) household expenditure on transport should increase when transport is more readily available (and cheaper); ii) an increase in the frequency of households using vehicles to transport produce to market when roads improve and traffic increases; iii) a decrease in the relative cost of selected consumer products (from external markets) when the availability and cost of transport reduces.

131. All survey data required for above indicators will be disaggregated by gender, locality and other stratifying variables in line with standard practice.

132. The M&E arrangements described in Chapter 8 (and Annex 12) will accrue data against the above indicators. This will enable R4D team members to establish the extent to which the goal is being realised and the impact of the planned interventions on women and men. The indicators listed are 'relative measures' and hence do not require explicit targets. For performance assessment purposes, the interest will be in relative changes in these measures through time, and as plausibly associated with changes in rural road access. R4D will ensure that all data and information collected are disaggregated by sex during all phases of the Program, from design and implementation to M&E. Indicators will also specify 'gender targets' if necessary and interventions to reach those targets. A gender baseline will be conducted and included in the M&E system.

133. Achievement of the overall development goal will be pursued through the following <u>immediate objective</u>:

> ***The GoTL is more effectively planning, budgeting and managing rural road works using labour based methods, as appropriate***

134. The focus of the objective (i.e. GoTL) is necessarily broad. While it is anticipated that a Department of Rural Roads will be established within DRBFC, both the timing and the process for this are uncertain[74]. Further, progression of the GoTL's decentralisation plan, including the issue of asset

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reason for including the distance indicator is related to the fact that GoTL made it clear that they wanted R4D to support new road development, which presumably will reduce distance to services—information which should be captured.

[72] The outcome refers to the achievement of the immediate objective.

[73] Using indicators that measure changes in service utilisation would add substantially to the cost/effort of data collection and only add a little benefit in terms of new insights—and it is therefore not recommended to pursue this avenue. R4D has to be pragmatic about what can be measured, especially given the capacity constraints and the uncertainty of the proposed establishment of knowledge management functions within DRBFC

[74] It is anticipated that more narrowly defined outcomes can be developed as the institutional arrangements are clarified (e.g. if a Rural Roads Department is established).

ownership (e.g. rural road transfer to District ownership), is also not clear this time. Given the uncertainty in the macro environment, M&E arrangements will need to evolve – a responsibility that will be carried out by the M&E Specialist. This is also reflected in section 8.3.4 on outstanding issues related to M&E.

135. The objective is fundamentally concerned with strengthening the GoTL's performance in the rural roads sector. This recognises the current low level of capacity and the need to strengthen core functions such as planning, budgeting and managing (including procurement, contract management, quality control, gender mainstreaming and M&E). The focus on 'road works' encompasses the breadth of works from new roads development in remote rural communities, to rehabilitation and maintenance of existing rural roads.

136. The objective explicitly references to the appropriate use of labour-based approaches, and as such aims to consolidate the success of the AusAID-funded/ILO-implemented TIM-Works Project under SEFOPE. It also supports the GoTL's broader aim of increasing rural employment. However, the objective acknowledges and it has been agreed with DRBFC that labour-based approaches may not be appropriate in all instances. In the case of new construction works for example it may be more appropriate in certain instances to use equipment-based methods (using heavy machinery) instead of labour-based methods (which are based on using a mix of labour and light equipment).

137. From a logical standpoint, the above immediate objective alone is not sufficient to achieve the overall development goal owing to the integral role of a nascent private sector in the Timor Leste rural roads sub-sector. Hence it is important to acknowledge that R4D will work in concert with the EC-funded RRRMP (implemented by the ILO) to strengthen the capacity of small-scale contractors. In addition, R4D will also benefit from the small contractors' capacities that have been created under the TIM-Works project which is also implemented by the ILO.

138. A series of measurable outcomes[75] will be routinely assessed to establish progress towards R4D's objective. This will involve assembling data from within the Ministry of Infrastructure to answer three fundamental performance questions about the 'downstream' results of capacity building interventions[76]:

- **Is GoTL more effectively planning rural road works?**
  - Rural Road Master Plan developed and reviewed annually[77]
  - Annual Action Plans prepared in accord with GoTL protocol for Departments for submitting these AAPs[78]
  - Percentage rural road packages subject to a technical design[79]
- **Is GoTL more effectively budgeting rural road works?**[80]
  - Annual GoTL rural road budget allocation[81]

[75] For the purposes of R4D, 'outcomes' are defined as "changes in knowledge, attitude or practice among direct recipients/partners of the program delivery team".

[76] Like explained in paragraph 160, the question: "if not, why not?" for the questions will be answered within the scope of the proposed data/indicators when analysed from a 'systems perspective' rather than in isolation

[77] A rural roads master plan was development with support from the EU but needs further updating. Further, no mechanism has been established to review progress against the master plan.

[78] Annual Action Plans are an established GoTL process—principally focussed on securing government budget allocations. There is currently no formal protocol to guide the development of APPs, ensure their 'socialisation' within the Directorate or monitor their progress. As maybe required by MoI and DRBFC, R4D will review the current protocol and suggest modifications that will aim at improving the quality of the AAPs.

[79] This is a proxy indicator for the capacity of DRBFC to prepare technical designs. The quality of the designs – vis-à-vis construction requirements in the field – will be checked by the R4D staff as part of its internal quality assurance and quality control activities, and annual AusAID/ILO IMG reviews will be responsible to verify whether this R4D quality control and quality assurance system is effective. The composition of the IMG should therefore include engineering expertise required to assess the effectiveness of the quality of this system (it is proposed that stratified random sample verification of design is done).

[80] The purpose of the three budget-related indicators is broadly to track changes in institutional capacity and commitment to resourcing the rural roads sub-sector.

- Percentage of annual rural road budget expended (disaggregated by district and by investment in maintenance, rehabilitation and development)[82]
- Cost estimates database updated within previous six months[83]

- **Is GoTL more effectively managing rural road works?**
  - Percentage rural road packages procured by MoI/DRBFC[84] and DAs and recorded in MoI's Project Management & Control System (PMCS)[85] [86] and DAs procurement information databases.
  - Number and value of package contracts procured per year against AAPs and approved budgets and also in terms of relative changes from one year to the next (data will be disaggregated by district and by investment in maintenance, rehabilitation and development)
  - Number person-days community labour utilised per year[87] (sex-disaggregated)
  - Funds disbursed for community labour per year
  - Percentage rural road packages that meet all established technical standards[88].

139. The enhanced performance that is expected to be reflected in the above indicators will be a function of the capacity development interventions described in section 3.2. A capacity development framework[89] (see section 3.2) developed following mobilisation will form the basis of an annual process of internal review and reflection by DRBFC - the Annual review of Capacity Development within DFRBC (ABCD). Once developed, this will become an integral part of the M&E arrangements for R4D. The scope of the capacity development framework is determined by the particular performance changes set out in the program's M&E framework. The ABCD will be critical to understanding the reasons why progress against the above outcome indictors has or has not been achieved and for adjusting the implementation of capacity building activities accordingly. The ABCD will also consider the quality of key outputs delivered by DFRBC with R4D support.

2.3 Outputs and Activities

140. The substantive envisaged outputs of the delivery team relate to capacity building needs as discussed in Section 3.2. Principal envisaged outputs among capacity building interventions and capital investment support are:

- A **Rural Roads Master Plan**, including but not limited to protocols for: data collection, drafting, approval, socialisation/communication, monitoring, gender mainstreaming and review.
- **Annual Action Plans** prepared by the Ministry of Infrastructure to elaborate and operationalize the Master Plan.
- An established and effectively functional and transparent and practical **procurement system**.
- An established, institutionalized and effectively operational **quality control & quality assurance system** for rural road works.
- **Environmental and Social Safeguards Frameworks** (including gender equality strategy) and operational plans

[81] In the current budget there is no allocation to rural road works.
[82] In previous years, GoTL allocations for rural road works tended to be under-expended—arguably due to capacity bottlenecks.
[83] A cost estimates database has been established with donor support, but the value of such mechanisms in supporting better budgeting is contingent on protocols to update the data and maintain database integrity.
[84] This proxy indicator will provide information about relative changes in capacities (that are expected to be developed) within MoI/DRBFC and DAs regarding the procurement of rural road works.
[85] A PMCS has been established with support from the ADB. It is a truism that the value of such systems is contingent on their use and upkeep within a wider institutional framework.
[86] This does not include monitoring the quality of the rural road works. This will be monitored by processes associated with the Rural Roads Information System (RRIS) (i.e. 'within government systems').
[87] Experiences from TIM-Works show that labour-based methods for rural road works can yield valuable local economic benefits
[88] Work is currently being undertaken to define the technical standards for rural road works. Such standards have little merit without a system to monitor compliance.
[89] Informed by a capacity needs assessment and the development of a staged capacity building model.

- An established and operational **Knowledge Management Unit (KMU)** or KM functionality within DRBFC to facilitate assessments of progress in relation to AAPs and the Master Plan, and more broadly to promote a performance culture[90] and gender equality within DRBFC.
- **Constructed, rehabilitated and maintained rural roads**, in accordance with AAPs, with short-term job opportunities created during the implementation of the works as a secondary benefit.

141. The rationale underpinning these key outputs is discussed and elaborated in Chapter 3 (Program Description) and Chapter 4 (Work Plan and Staffing). The assumption implicit with regards to the envisaged outputs is that MoI capacity is a critical limiting factor in the sustainable management of the rural road network in Timor Leste; and that capacity can be meaningfully enhanced through R4D.The fundamental performance question that the M&E arrangements will examine concerning outputs is: ***Is R4D delivering key program outputs on time, within budget and as per defined quality, and if not, why not?***

142. Considering the importance of a functional procurement system within GoTL as a critical deliverable for achieving R4D's outcome, much emphasis will be given by R4D in establishing and operationalizing such a procurement system.

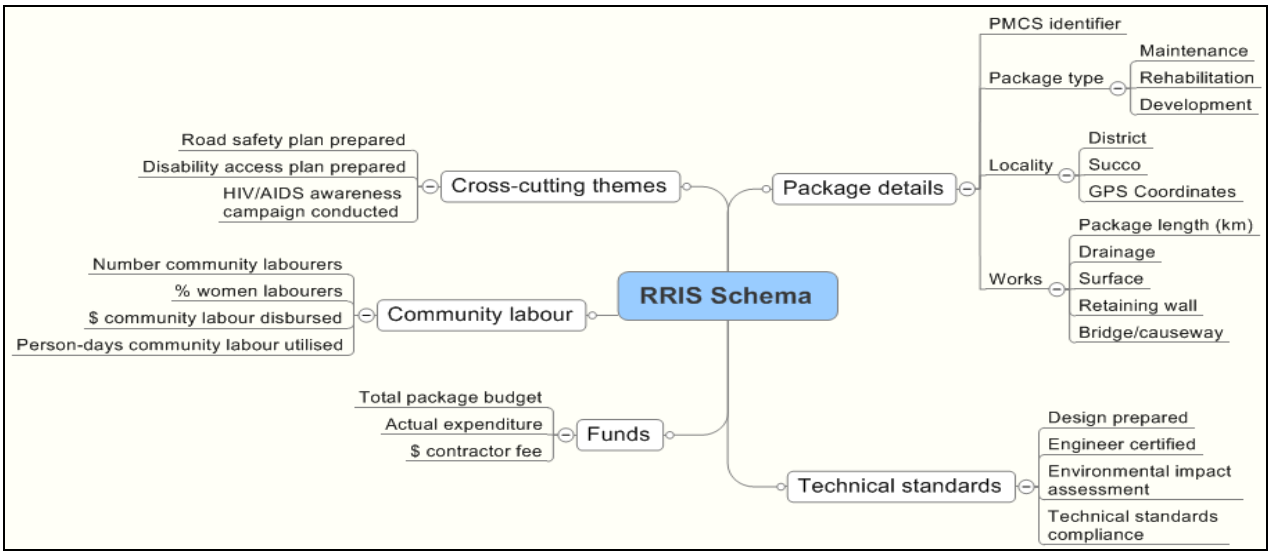
143. Whereas the establishment and operation of a KMU within DRBFC is envisaged, its creation is uncertain to the extent that such a unit can be whole budgeted, staffed and managed by DRBFC. However it could be a unit that transitions from being effectively a program structure to a government structure over the life of the Program, as the value of the unit becomes self-evident and as GoTL resource commitment expands. If this would be problematic, it does not need to be explicitly labelled a discrete 'KMU'. The key importance is that the key functionalities of such a KMU are established within DRBFC.

144. The basic data to track the progress of output delivery will be enabled by the establishment and maintenance of a Rural Road Information System (RRIS). This system will contain relevant information about the rural road network and also utilising Geographic Information System (GIS) capability. The RRIS will inform the basis for the Rural Road Master Plan[91] and will be routinely updated to reflect progress of the Annual Action Plans and the R4D Annual Work Plans. The RRIS will also enable meaningful reporting to stakeholders such as donors and wider GoTL partners about progress and performance within the rural roads sub-sector. The diagram presented in figure 1 is indicative of the RISS database schema.

145. To the extent possible, the development of the RRIS will built on, and incorporate, already available database systems within MoI and DRBFC (like the road condition inventory system developed with assistance from JICA and the contract management system and unit-cost database systems developed with support from ADB/AusAID). The RRIS will be part of the broader R4D Management Information System (MIS) – which will transition to MoI ownership in line with developing capacities – and will also include functions related to budgeting, planning, programming, monitoring, evaluation and reporting.

[90] In this context the definition of 'promoting a performance culture' is that R4D should foster an intrinsic curiosity of the Department's own performance. People should have an interest in whether or not they are part of a successful team.
[91] Derived initially from a plan funded and drafted by the European Union.

Figure 1: Indicative schema of the RRIS



2.4 Indicators of Achievement

146. Indicators of achievement are presented in the Logical Framework (Annex 11). An overview of the data collection mechanisms that will be used to obtain the information required to assess progress against the formulated indicators is presented and explained in chapter 8 (Monitoring and Evaluation) and is summarized in the Monitoring and Evaluation Framework (Annex 12). The identified Means of Verification (MoV) that will be used for data collection are mentioned in the Monitoring and Evaluation Framework as well.

2.5 Assumptions and Risks

147. A number of possible risks associated with the achievement of R4D's immediate objective have been identified in the preparation of the design of R4D. These possible risks relate to GoTL's performance in;

1. Making adequate financial allocations to rural road works and implementing reforms to strengthen road management systems;
2. Effectively planning and delivering investments in rural road works through DRBFC and the DA Offices, using labour-based methods were appropriate – and with ILO Specialists providing support and assistance with more complex tasks;
3. Achieving the targets set for R4D (through AusAID's and GoTL's capital investments in R4D) for rural road works and the associated creation of short-term employment opportunities

148. Table 2 summarizes the possible risks associated with above mentioned three performance indicators and includes R4D actions to minimize and mitigate these identified risks. This risk matrix will be revisited and updated as necessary on an annual basis in conjunction with the annual progress report.

149. A key issue relates to the possible risk that GoTL's recommended commitments to R4D may not materialize and that GoTL will not make the increased budget allocations necessary to institutionalize an effective system for rural road rehabilitation and maintenance and/or divert their resources elsewhere considering that R4D will provide sufficient funds to the rural roads sub-sector.

150. As explained in chapter 3 the current GoTL annual budget approval processes and procedures, together with the still limited awareness among GoTL's budget decision makers about the need for adequate investments in rural roads infrastructure and MoI limitations in producing good quality budget investment proposals[92], make it difficult for MoI to make firm commitments at this stage. This is further compounded by the fact that no firm commitment regarding required additional capacities can be given, in the absence of a capacity needs assessment (which is proposed to be undertaken during R4D's inception phase).

151. Positive indications of MoI's and DRBFC's recognition of the importance of investments in the rural roads sector are the full support to R4D as expressed by the Secretary of State of Public Works, DRBFC's proposed US$ 3 million budget allocation for the rural roads sector for 2012 and DRBFC's intention to establish a dedicated Department of Rural Roads [93].

152. In addition, the high priority attributed by the GoTL for developing the rural roads network in Timor-Leste – as reflected in the SDP 2011-2030 – is a positive indicator of GoTL's policy commitment for increasing investments in the rural roads sector. Through R4D's capacity building activities it is expected that the program will be able to gradually develop MoI's ability to influence the allocation of government budgets for the rural roads sub-sector.

153. The risk that GoTL's current commitments to R4D may not materialize will be managed through policy dialogue and by demonstrating the suitability of labour-based methods. R4D's set-up will also be fully integrated within DRBFC's institutional structure and the design of the program reflects GoTL's priorities, thereby also addressing this possible risk.

154. The effectiveness of R4D in reaching its immediate objective of increasing GoTL's performance in budgeting, planning and implementing investments in rural road works – being the main thrust of the program – will depend on GoTL's engagement in R4D. Whereas there are significant positive indications of GoTL's interest in engaging actively in R4D, it is not possible or realistic at this stage to expect GoTL to make firm and quantified engagement commitments at the moment, for reasons as explained above. An indicative assessment of the expected effects of varying degrees of GoTL engagement on the ability of R4D to achieve its immediate objective is presented in Annex 10.

155. The assessment of the effects of different levels of GoTL engagement and commitment on the effectiveness of R4D in achieving capacity building and in delivering investments in rural road works – and hence DRBFC's performance – has been done for three different scenarios of GoTL engagement (high, medium and low) in relation to: i) the allocation of GoTL funds for capital investments; ii) the provision of the recommended counterpart staff; iii) interest and commitments of the engaged counterpart staff; iv) GoTL's role leading coordination in the rural roads sub-sector; v) GoTL's active participation in policy dialogue; vi) GoTL's active involvement and support in the development of required operational tools, and; vii) GoTL's active involvement and support in the development of a comprehensive Rural Roads Master Plan (RRMP).

[92] Due to a lack of capacities and a lack of data to prepare well-informed and argumented proposals.

[93] In a meeting on 22 September 2011 the Secretary of State for Public Works of MoI re-confirmed to the Australian Ambassador to Timor-Leste and the AusAID Minister-Counsellor for Timor-Leste MoI's intention to establish a Department of Rural Roads (DRR) in 2012. In the meeting MoI and DRBFC expressed their keen interest in R4D and the Secretary of State for Public Works also mentioned in the meeting that MoI has submitted a request to GoTL for the recruitment of more engineers in 2012.

Table 2: Risk Assessment Matrix

1. GOTL MAKES ADEQUATE FINANCIAL ALLOCATIONS TO RURAL ROAD WORKS, THROUGH ITS ANNUAL BUDGET PROCESS, AND IMPLEMENTS REFORMS TO STRENGTHEN ROAD MANAGEMENT SYSTEMS.		
Assumption	**Risk Assessment**	**Mitigating Actions**
Road infrastructure and rural development remain key priorities for GoTL and the political will and interest to develop the rural road network can be maintained and built upon after elections in 2012	Low	• Policy dialogue, drawing on and demonstrating the outputs, effects and impacts of TIM-Works and R4D as implementation progresses, to maintain and build political commitment to investments in rural roads. • Through R4D's capacity building activities the Program will be able to gradually develop DRBFC's ability to influence the allocation of GoTL budgets for the rural roads sub-sector • Alignment of R4D with GoTL's priorities for investments in rural roads as outlined in the SDP 2011-2030
MoI and DRBFC will continue to support initiatives required for the development, improvement and institutionalization of required investment plans and effective operational systems needed for the planning and implementation of rural road works.	Low	• As agreed with MoI and DRBFC during the design process, R4D will provide substantial capacity development, technical advice and implementation support in developing, improving, operationalizing and institutionalizing key plans and systems required for effective road management – with a strong emphasis on the establishment of knowledge management functions within DRBFC (including a rural road master plan; planning systems; road works identification, prioritization and selection systems; management information systems, quality assurance & quality control systems; M&E systems; reporting systems)
2. DRBFC AND DA OFFICES EFFECTIVELY PLAN AND DELIVER INVESTMENTS FOR RURAL ROAD WORKS – USING LABOUR-BASED METHODS WHERE APPROPRIATE – WITH EXTERNAL ADVISORS PROVIDING SUPPORT AND ASSISTANCE WITH MORE COMPLEX TASK		
Assumption	**Assessment of Risk**	**Mitigating Actions**
Leadership and staff commitment within DRBFC and other relevant agencies is sufficient to build capacity and other factors such as staff turnover do not undermine capacity building	Medium	• R4D will build leadership and staff commitment through the close engagement of senior officials, policy dialogue and the integration of R4D's set-up within DRBFC's institutional structures and procedures. • An on-going policy dialogue with concerned MoI, DRBFC and SEFOPE senior officials prior to the official start of R4D is proposed with the aim of obtaining firm commitments regarding required DRBFC staff inputs and the transition of SEFOPE's engineers and supervisors who are now assigned to TIM-Works (which will be completed in February 2012) to R4D. ILO and SEFOPE envisage that the majority of the SEFOPE engineers and supervisors who are now working in TIM-Works will be transferred to DRBFC to become district-level counterpart staff, thereby assuring a core capacity at district level for the delivery of rural road investments, from the start of R4D onwards. Details of such transitional arrangements need to be agreed upon as soon as possible. • Capacity development activities will be assessed, planned and implemented with close involvement of DRBFC to manage the risks posed by staff turnover, including by focussing on team performance as well as individual skills. Capacity building support – following a staged approach – will be delivered in line with evolving absorption capacities in DRBFC • Through capacities built in DRBFC and also by providing direct capacity building support, R4D will be able to support the DAs in building their capacities for the planning and procurement of rural road works. • Sufficient flexibility has been built in the R4D budget to enable co-sponsoring DRBFC counterpart staff during the first two years of implementation, thus providing MoI and DRBFC with sufficient lead-time to enable them to provide resources for DRBFC counterpart staff. • A long term perspective (initially a 4 years implementation period – aiming at achieving DRBFC performance at "guided-assisted" level – but with the possibility of considering a 4-years extension to achieve a fully "independent" DRBFC performance) and clear strategy for phased handing-over of responsibilities will provide for sustainable institution building. • If increased staffing levels in DRBFC will not materialize, as recommended by the design mission, sufficient flexibility has been incorporated in R4D's design – in particular with regards to ILO staff inputs – that R4D's capacity

		of delivering the envisaged physical works will not be jeopardized even if less additional DRBFC counterpart will become available than anticipated.
2. DRBFC AND DA OFFICES EFFECTIVELY PLAN AND DELIVER INVESTMENTS FOR RURAL ROAD WORKS – USING LABOUR-BASED METHODS WHERE APPROPRIATE – WITH EXTERNAL ADVISORS PROVIDING SUPPORT AND ASSISTANCE WITH MORE COMPLEX TASK (CONTINUED)		
Assumption	**Risk Assessment**	**Mitigating Actions**
Uncertainties related to the pace and direction of the decentralization – in particular in relation to institutional responsibilities of DRBFC and the DAs regarding the planning and procurement of rural road investments – taking into account the possibility of a greater shift of responsibilities for rural roads from MoI/DRBFC to MSATM or ADN or other agencies – will not adversely affect R4D's immediate objective.	Medium	• R4D will work with and support DRBFC and the DAs directly involved in rural road planning, procurement and management and will adopt a flexible approach which can adapt to a changing environment, including the potential use of consultancy firms for design and works supervision. • R4D staff will work alongside DRBFC counterpart staff within the institutional set-up of DRBFC. Whether a dedicated Department of Rural Roads (DRR) will be established within DRBFC or not, this is not likely to adversely affect the effectiveness of the R4D support to DRBFC, as this support can adapt easily to evolving institutional arrangements in DRBFC. • The R4D budget for TA and other capacity building resources is sufficient and incorporates sufficient flexibility to adapt to possible changing responsibilities and requirements of DRBFC and the DAs in terms of providing advice and capacity building/implementation support for the planning, procurement and management of rural road investments. • R4D has incorporated sufficient flexibility in its design that will allow for a re-direction of its support to MSATM, the DAs or other agencies involved in the planning and procurement of rural road works.
Effective and harmonized/standardized procurement systems are a key pre-requisite for the delivery of investments in rural road works and strong support from MoI and MSATM will be required to put such systems in place in DRBFC and in the DAs	Medium	• Through policy dialogue with MoI and MSATM, R4D aims at reaching an early agreement with MoI and MSATM on measures/activities to be taken to ensure the establishment of effective procurement systems and procedures, with responsibilities between MSATM and DRBFC for the procurement of rural road works clearly defined. • R4D will provide substantial support to MoI/DRBFC and MSATM in reviewing, improving, developing and operationalizing procurement systems and procedures by providing technical advice, capacity building and implementation support. • R4D provides sufficient ILO Specialist inputs to ensure necessary support to DRBFC and DAs in procuring works, in case expected staffing resources in DRBFC and DAs cannot be developed in the way envisaged by R4D.
Donors in the roads sector, particularly the rural roads sub-sector, are willing to coordinate and to improve the effectiveness of investments	Low	• MoI, donors and other projects operating in the rural roads sub-sector have expressed their interest and support in GoTL led-coordination of activities in this sub-sector and R4D will promote, support and capacitate GoTL-led coordination in the rural road sub-sector. • This will be done through policy dialogue, informal and formal liaison and through the establishment of a MoI-led Program Steering Committee. • This PSC for R4D will not only have R4D specific responsibilities but will also be taking the lead in the coordination of all rural road investments and initiatives in Timor-Leste, including rural roads investment planning, and the further strengthening, improvement and harmonization of systems, guidelines, standards, mechanisms and procedures for planning and implementation of investments in the rural road network.
A labour-based approach is adopted by GoTL wherever cost effective and appropriate	Low	• Experience from TIM-Works indicates that labour-based approaches are feasible and appropriate and can be cost effective. R4D will build on the successful experiences of TIM-Works for the application of labour-based approaches. • MoI and DRBFC are very interested in the application of labour-based approaches and through R4D's capacity building capacities and implementation support, the Program will demonstrate the effectiveness and appropriateness of the approaches and building necessary capacities within DRBFC for the effective application of these labour-based approaches,

		where appropriate.
Transparent processes will ensure sound financial management	Medium	• Established financial management and procurement processes will be reviewed and safeguards proposed where necessary. • Improved budget planning and procurement systems will allow better control over GoTL allocation and spending. • Donor funds will be managed according to stipulated regulations
2. DRBFC AND DA OFFICES EFFECTIVELY PLAN AND DELIVER INVESTMENTS FOR RURAL ROAD WORKS – USING LABOUR-BASED METHODS WHERE APPROPRIATE – WITH EXTERNAL ADVISORS PROVIDING SUPPORT AND ASSISTANCE WITH MORE COMPLEX TASK (CONTINUED)		
Assumption	**Risk Assessment**	**Mitigating Actions**
Uncertainty about future role of DRBFC Regional Offices does not affect planning and delivery of investments in rural roads. MoI/DRBFC envisages that Regional Offices' roles in future will focus on provision of support in preparing tenders, in bid evaluation, in supervision, quality control and assurance, and in the certification of works. The ADN on the other hand expects that the DRBFC Regional Offices will be discontinued in the future as they are not considered to be operating effectively and are not part of GoTL's administrative set-up	Low	• The current institutional set-up of R4D includes the placement of ILO Regional Engineers at DRBFC's Regional Offices. The strategic location of these Regional Offices will enable the ILO Engineers to use them as a hub to provide capacity building, technical advice and implementation support in the implementation of R4D, covering the districts that are currently being served by these DRBFC Regional Offices. In case these Regional Offices will be discontinued, it is expected that the DRBFC staff of these Regional Offices will be re-located at national or district level. In that case the ILO Regional Engineers can remain posted in the districts where these Regional Offices are located, but they will then physically be based in DRBFC's district office in those districts. As such an eventual discontinuation of the DRBFC Regional Offices is not considered to affect the effectiveness of the ILO TA significantly.
3. CONSTRUCTION OF 40 KM, REHABILITATION OF 450 KM, PERIODIC MAINTENANCE OF 700 KM AND ROUTINE MAINTENANCE OF 1,150 KM OF RURAL ROADS – USING LABOUR-BASED APPROACHES WHERE APPROPRIATE – CREATING 4.7 MILLION WORK-DAYS OF SHORT-TERM EMPLOYMENT (OF WHICH AT LEAST 30% FOR WOMEN) FOR 52,000 BENEFICIARIES LIVING IN RURAL COMMUNITIES.		
The GoTL will allocate the funds as recommended by R4D for capital investments that are required (together with AusAID's funds for capital investments) to deliver the targets for physical works and associated short-term employment opportunities.	Medium	• Initiate as soon as possible a dialogue between MoI, MSATM, AusAID and ILO – and including site visits to TIM-Works, starting before the actual scheduled start of R4D, with the aim of securing GoTL's commitments. MoI has already submitted a proposal to MoF to invest US$ 3 million in 2012 for rural roads and the proposed dialogue also needs to follow-up on this to ensure that this request will be endorsed by the GoTL. • One of the first priorities of R4D will be to support GoTL in finalizing a comprehensive Rural Roads Master Plan (RRMP). Once this RRMP is completed and endorsed by the GoTL, the RRMP will provide a powerful instrument to secure the required funds from the State Budget for investments in the rural roads sub-sector. • R4D will provide substantial support to DRBFC in building capacity for and in supporting the preparation of well-informed and argumented investment proposals, drawing upon information from an MIS that will be developed. • By improving DRBFC's and DAs delivery performance through R4D, it is expected that the confidence of GoTL in DRBFC's and DAs capacities to deliver investments in the rural roads sector will increase and that gradually more funds will be channelled through DRBFC and DAs for investments in rural roads infrastructure.
Identification and selection of roads can be done in a fair and transparent manner based on established selection criteria	Low	• The identification and selection of road works will be aligned in accordance with GoTL priorities as formulated in the GoTL SDP 2011-2030, and taking into account priorities of the Districts and DRBFC as well. • During the inception phase of R4D, indicative road prioritization and selection criteria – that have been formulated in close consultation with DRBFC during the design process – will be finalized and agreed upon with key GoTL stakeholders. • As agreed with DRBFC, initially the draft rural road master plan that was developed with assistance from the EC and agreed selection/prioritization procedures will be used to guide rural road investments during the first year. • Once a comprehensive rural roads master plan (RRMP) has been completed with support from R4D, this RRMP – together with finalized road works

		prioritization and selection criteria – will provide the overarching direction for investments in rural road works. The RRMP will be updated yearly. • R4D will ensure transparency and openness in the prioritization and selection process and information will be made public in accordance with the communication strategy for R4D that will be developed during the inception period.
3. CONSTRUCTION OF 40 KM, REHABILITATION OF 450 KM, PERIODIC MAINTENANCE OF 700 KM AND ROUTINE MAINTENANCE OF 1,150 KM OF RURAL ROADS – USING LABOUR-BASED APPROACHES WHERE APPROPRIATE – CREATING 4.7 MILLION WORK-DAYS OF SHORT-TERM EMPLOYMENT (OF WHICH AT LEAST 30% FOR WOMEN) FOR 52,000 BENEFICIARIES LIVING IN RURAL COMMUNITIES (CONTINUED)		
Assumption	**Risk Assessment**	**Mitigating Actions**
Sufficient number of competent companies will tender for works and no poorly qualified contractors will be selected by DRBFC or by the DAs – in particular for rural road works undertaken with GoTL funding through the Government system.	Low to Medium	• Experience from TIM-Works indicates that there is no shortage of small-scale contractors willing to participate in rural road works. • A cadre of trained contractors graduated from TIM-Works and a number of new companies will be trained under the recently approved EC-funded RRRMP which will start by the end of 2011, i.e. ahead of the start of R4D. • In consultation with DRBFC and MSATM, R4D will establish agreed pre-qualification procedures to ensure that local contractors who participate in the bidding and are contracted for works, meet minimum requirements. • DRBFC's operational assistance at district level to DAs for the procurement of rural road works – supported by R4D ILO engineers – will allow DRBFC and R4D to influence the contractor selection (as per agreed procedures), thereby minimizing the risk of contracting poorly qualified contractors. • As required, R4D will provide training/orientation before and during the implementation works to contractors. R4D aims at involving RRRMP as well in the training of selected contractors.
Communities are willing to participate in labour-based works	Low	• Experience from TIM-Works indicates that this is not a problem, provided that local communities are involved in identification and planning process, as will be done under R4D. As required, R4D will strengthen and support districts' participatory identification and planning processes, which include the Aldeias, Sucos and District Administrations. At district level R4D proposes the placement of DRBFC facilitators and ILO district coordinators to support and strengthen the identification and planning process. • Once particular road works have been selected and contracted out to local small contractors, DRBFC district facilitators – with support from the ILO district coordinators and the Gender Specialist – will engage with the selected contractors and the involved communities to explain and ensure that the various social safeguards are understood and adhered to. • R4D road work activities will take into account seasonal variations in local labour availability and, as needed, downscale construction activities (e.g. in agricultural peak season) to avoid undue competition for casual labour.
R4D IPs are committed to gender equality goals and different needs and constraints of women and men are duly taken into account during the whole project cycle, from planning to implementing and monitoring phases	Low to Medium	• Through the inputs of the ILO Gender Specialist in the collection and analysis of data with a gender perspective and through the design of specific training activities on gender awareness at community level and on gender mainstreaming for MoI, DRBFC and MSATM officials and other implementing partners, the project will increase understanding of equity and equality concepts and commitment to gender equality goals
No natural disasters affecting road work progress	Medium	• Adequate construction specifications and standards – in particular related to drainage, erosion control and pavements – will be used to minimize erosive effects of rains on roads. These specifications and standards will take into account expected effects of climate change in Timor-Leste, in particular regarding expected increases in rainfall, rainfall intensities and temperatures • The maintenance regime that R4D will apply will also reduce possible adverse effects of heavy rains and floods on the condition of the roads. • R4D Annual Work Plans take into account seasonal construction limitations related to weather constraints (i.e. in particular the rainy season). Lessons learned from TIM-Works will be considered in timing construction works
Environmental impacts of road works are minimised	Low	• Labour-based construction methods generally ensure that interventions are environmentally friendly as local construction materials will be used in a way that does not cause long-term irreversible environmental impacts • Drawing on the experience of TIM-Works and other rural road programs and projects implemented in similar environmental and terrain settings,

		R4D will implement environmental safeguards measures to minimize and mitigate possible adverse environmental impacts (including impacts on sensitive areas). • The design of R4D includes a draft environmental framework that will be finalized with key stakeholders during the inception period. R4D will provide technical guidance and capacity and implementation support in finalizing and implementing the environmental safeguards framework.
3. CONSTRUCTION OF 40 KM, REHABILITATION OF 450 KM, PERIODIC MAINTENANCE OF 700 KM AND ROUTINE MAINTENANCE OF 1,150 KM OF RURAL ROADS – USING LABOUR-BASED APPROACHES WHERE APPROPRIATE – CREATING 4.7 MILLION WORK-DAYS OF SHORT-TERM EMPLOYMENT (OF WHICH AT LEAST 30% FOR WOMEN) FOR 52,000 BENEFICIARIES LIVING IN RURAL COMMUNITIES (CONTINUED)		
Assumption	**Risk Assessment**	**Mitigating Actions**
Peace and stability will prevail	Low to Medium	• Risk assessment will be done from time to time for areas with physical interventions. Should conflict arise in a certain area, project activities will be put on hold or, if conflict is protracted, be redirected. • R4D, through the provision of substantial short-term employment opportunities to the local population – with transparent recruitment procedures in place that are based on the principle of equal access to job opportunities – is expected to contribute to reduce the risk of civil unrest (as high unemployment is seen as when of the key triggers for civil unrest).
Land access issues and distribution of benefits do not contribute to conflict	Low	• Building on the experience of TIM-Works, appropriate procedures will be implemented for accessing land and ensuring benefits are equitably distributed within and between communities. • The main focus of R4D is on the rehabilitation and maintenance of existing rural roads and these works are not expected to require significant land acquisition, as is also the experience with TIM-Works. In addition, flexible geometric design standards will be used (which are currently being developed through the ADB/AusAID TA to DRBFC) that take into account specific terrain conditions alongside the road alignments. • Where minor land acquisition may be required along existing alignments, R4D will enter into a dialogue with the concerned local beneficiaries and Chiefs of Aldeias and Sucos to settle such issues locally. Experiences from TIM-Works indicate that this approach is effective. R4D will not implement rural road works if no consensus has been reached with concerned local people with regards to minor land acquisition requirements. • R4D has the provision for the construction of 40 km of new rural roads, for which it is proposed that GoTL funds will be used. Land acquisition that may be required in such cases, will have to follow relevant GoTL procedures and regulations and R4D will ensure that these are being adhered to and that consensus is reached with the concerned local people before the start of construction works. • R4D will involve the beneficiaries in the identification, planning and implementation of the rural road works. • Transparent systems for labour recruitment will be used, based on the principle of equal access to short-term job opportunities for women and men.
Direct income for men and women from road works does not contribute to tensions or conflict within or between communities and road works do not lead to negative gender impacts from the presence of outside workers	Low to Medium	• Drawing on the experience of TIM-Works and appropriate analysis, measures will be put in place to monitor and manage any adverse gender outcomes, including providing socialization and facilitation support to involved local contractors and communities and promoting gender equality and HIV/AIDS awareness. • While maintaining the principle of equal job opportunities for women and men,R4D will also include provisions that give due respect to Aldeias' and Sucos' reluctance to employ workers from outside of their administrative boundaries for work on road sections that are located within their Aldeias or Sucos. By doing so, R4D will aim at an equitable distribution of the benefits of short-term local employment opportunities not only within but also between communities and among women and men. This approach has also been successfully used by the TIM-Works project.

156. Through policy dialogue R4D will engage with GoTL to raise awareness about the importance of a high level of GoTL engagement and commitment and the matrix presented in Annex 10 will also be used to review GoTL's engagement and commitment on an annual basis, and to take measures, as required, to promote increased engagement and commitment.

157. A possible capacity development related risk could be the lack of sufficient counterpart staff to work with the R4D ILO team. This would have adverse effects on R4D's capacity building activities. The transfer of SEFOPE' Engineers and Supervisors – who are currently assigned to the TIM-Works project[94] – to R4D would mitigate such risks regarding capacity building in the field of engineering. For the first two years R4D has the provision to co-sponsor government counterpart staff through the R4D budget (at government remuneration levels) and this will give GoTL the necessary time to make arrangements to start to employ and finance DRBFC counterpart staff for R4D, as recommended by the R4D design. .

158. There are sufficient positive signals and experiences with similar programs/projects (like BESIK and TIM-Works) that warrant confidence in the ability of R4D to secure sufficient engagement of GoTL to enable the Program to achieve its intended key outcome. Whether the physical outputs will all be achieved as planned for, will depend on the ability of GoTL to make the envisaged GoTL counterpart funding available.

159. What will be very important for R4D to achieve during the inception phase (and – equally important – before the start of R4D through an intensive dialogue between AusAID, GoTL and ILO) is to generate increasingly more interest and understanding for the program within GoTL, and to obtain firm commitments from the GoTL regarding the provision of funds for capital investments, additional staffing resources, and the transition of SEFOPE engineers and supervisors (who are currently assigned to TIM-Works) to DRBFC. The fact that DRBFC has no experience in implementing programs like R4D should not be overlooked and it is understandable that this also affects MoI's and DRBFC's ability to make firm commitments at this stage.

160. During the inception phase, the R4D team will have a key role in generating interest from its counterparts. This could be done through a combination of demonstrating the effectiveness of the program, involving concerned GoTL staff activity in all R4D activities, delegating tasks and responsibilities to the extent practical to the counterpart staff, and providing practical and demand-driven skill development activities.

3 Program Description

3.1 Introduction

161. Capacity building and increasing investment levels for the rehabilitation and maintenance of the rural roads network of Timor-Leste are considered key priorities for GoTL and AusAID. As capacity building is a long-term process, the proposed support through R4D should reflect this and it is proposed that R4D be designed initially for a period of 4 years, but with a development horizon of 8 years. Based on the assessment made during the design, achieving a capacity level between guided and assisted capacity [95] is considered a reasonable and realistic end-of-program outcome after 4 years.

[94] TIM-Works engages at the moment 14 engineers, 8 supervisors, 6 operational officers and 14 field officers who are employed by SEFOPE as contract staff. It is planned that the majority of these staff can be transferred to R4D upon the completion of TIM-Works (scheduled for February/March 2012). As new civil service staff positions need to be approved by the Civil Service Commission, it may take time before the counterpart staff will be employed as civil servants. In the interim MoI/DRBFC can employ the government staff for R4D as contract staff. This is common practices within line ministries in Timor-Leste.

[95] At the guided level of capacity advisers have a high level of control, but counterparts can undertake the straightforward elements of the function under supervision or guidance. Staff may not be fully aware of the full function – they 'may not know what they don't know' – and may not be aware of the need to follow through and take responsibility for ensuring the process or

162. A review of the performance and progress of R4D at the end of the 3rd year of implementation should ascertain whether R4D is still relevant and whether there are sufficient indications that the immediate objective of R4D can be achieved within the envisaged development horizon of 8 years. If this is the case, AusAID will consider funding for R4D for another 4 years following the design of a second phase.

163. R4D will support GoTL in planning, budgeting and implementing investments in rural road rehabilitation and maintenance, using labour-based methods where appropriate. It is proposed that R4D, with AusAID support, will lead donor support for rural roads. In line with GoTL priorities and plans, the program will have national coverage.

3.2 Capacity Building

3.2.1 Capacity Building Framework

164. Capacity building is central to R4D from inception onwards and will mainly focus on strengthening managerial and technical capacities of DRBFC in the following areas:

- Budget planning, securing funds and programming of funds;
- Identification, prioritization and selection of road works;
- Surveying, designing and cost-estimating;
- Tendering, contracting and contract management;
- Implementation of works, including quality control & quality assurance;
- Monitoring & evaluation and reporting;
- Gender mainstreaming and awareness raising.

165. Rural roads, whilst a national asset, are clearly aligned to the needs and aspiration of women and men at the district and sub-district level. GoTL partners have confirmed R4D should be a national program working across all 13 districts. This recommendation is endorsed by the design team within the context of the SDP and the GoTL's desire to deliver services equitably across the nation. As decentralization moves forward the need for R4D to support sub-national entities with regards to rural roads management skills will become more pronounced and it is clear capacity development investments will need to be made at this level as well.

166. A holistic capacity building framework will be followed which aims at improving the performance in planning, budgeting and managing investments in rural road works by strengthening required capacities within DRBFC and District Administrations for the effective planning, budgeting, procurement and implementation of rural roads investments.

167. This will include support in establishing functional management and technical capacities and in developing and operationalizing harmonized operational systems and tools. It also entails supporting policy/strategy dialogue and development and in strengthening capacities that are required to enable an effective coordination in planning and delivering rural roads investments. Furthermore the strategy aims at strengthening the knowledge base as a key condition to improve the quality of decision-making for planning and delivering investments in rural road works which are also gender sensitive. In line with the responsibilities of the DAs, R4D's focus at district level will also include support to the DAs in

function is fully completed. At the assisted level of capacity counterparts can take prime responsibility for the function, can handle most of the complex aspects and know when they need to ask for assistance. The adviser's role is more one of support, with occasional reminders and prompts to follow through, and occasional higher levels of support for new situations or for infrequent events (such as preparing an annual budget).

strengthening their capacities for the planning and procurement of investments for rural road works, taking into account gender equality and social concerns.

168. AusAID has developed a staged approach to capacity development which is integrated into the design of R4D. This approach sets out four stages of capacity for different functions – dependent, guided, assisted and independent[96]. The staged capacity development approach also includes a gradual handing-over of responsibilities to DRBFC, which will be guided by delivery-related performance indicators. To ensure the sustainability of the capacity building activities under R4D beyond the completion of the program, the set-up of R4D will be integrated within DRBFC's institutional structures and procedures.

169. During the first stage of capacity development (i.e. the dependent stage) R4D will have to assume a leading role in demonstrating various implementation activities. Experiences in other projects and programs (like TIM-Works and BESIK) have shown that such an initial demonstration phase can be very effective in increasingly generating interest, engagement and commitments from the government counterpart agencies.

170. Whereas the initial capacity development assessment that was carried out during the design mission identified the various capacity constraints and issues, considerably more time will be required to conduct a detailed capacity needs assessment as a basis to design a comprehensive capacity development framework. Such a detailed capacity needs assessment will be performed during the proposed first year's inception period of R4D.

171. R4D's capacity building activities will be aligned with GoTL's decentralization process and with DRBFC's engagement and its absorption capacities. Whilst building the capacity of public sector civil servants will be very important, R4D may consider testing models where capacities would be established amongst contracting consultants by contracting out some design and supervision works, and R4D could also consider supporting and encouraging trained government staff to establish consulting firms rather than remain permanent civil servants. Considering the uncertainty of the direction and pace of the decentralization process and engagement levels of DRBFC, R4D's design incorporates sufficient flexibility to ensure that its interventions can respond to the actual situation on the ground. The design of R4D allows for the required flexibility but also ensures avoidance of too much flexibility as this could lead to a drift in the program's objectives and priorities.

172. Direct implementation support will complement capacity building by providing an effective platform for on-the-job learning for the professional staff of DRBFC. However, care will need to be taken to ensure that direct implementation is supporting, rather than substituting for, capacity building activities. In this respect it is important that capacity building support – following a staged approach – is delivered in line with evolving absorption capacities.

173. Co-sponsoring (jointly funding[97]) with GoTL for the placement of national level and district-level DRBFC staff[98] is envisaged for a maximum period of respectively one and two years to ensure core

[96] AusAID *A Staged Approach to Assess, Plan and Monitor Capacity Building*, May 2006. The 'dependent' stage is defined as one where "The adviser controls the particular work function and may do most of the work, takes the decisions or is highly influential in the decision-making process." In the 'guided' stage "the adviser still has a high level of control, but counterparts can undertake the straightforward elements of the function under supervision or guidance." In the 'assisted' stage "counterparts are now taking prime responsibility for the function, can handle most of the complex aspects and know when they need to ask for assistance." In the final, 'independent', stage "counterparts are now fully competent to do the whole function. They may still use an external adviser for highly technical work that occurs only once a year or on an ad hoc basis."

[97] Administratively, options on how to do this need to be explored in consultation with MoI. One possibility would be to channel funds from the ILO through the MoI payroll system. Another option would be to do this through a dedicated bank account within MoI to which the ILO would transfer the funds required for the proposed co-sponsoring arrangements. If such arrangements or other mechanisms for transferring funds to MoI will not be practical or possible (because of financial ILO and/or GoTL procedures/regulations), the ILO will aim to recruit the required staff directly on a temporary basis - following remuneration levels similar to GoTL's remuneration conditions.

operational capacities at national and district level. It is assumed that DRBFC's current staff positions at its Regional Offices remain funded by DRBFC. It is expected that from the 3rd year of implementation onwards, DRBFC will assume the full responsibility for all the DRBFC staff that are required for the implementation of R4D. As capacities are being developed and assuming GoTL investment levels and staffing increase, R4D's role will gradually evolve and focus increasingly on advisory support.

3.2.2 Methodology

174. Extensive discussions with rural roads partners and stakeholders reconfirm the need for substantive capacity development support to the sector. R4D will allocate significant resources in support of capacity development to the sector. The following provides an overview of the capacity development framework to be employed by R4D[99]:

1. Adopting a holistic capacity development framework which ensures competencies and capabilities in MoI (individuals, work teams and the organisation), partner agencies (MSATM and ADN) and associated stakeholders and beneficiaries (13 Districts, targeted communities and local contractors[100]) associated with the rural road sector will achieve sustained and self-generating performance improvement[101].
2. Capacity development will (where possible) target and work through existing GoTL entities and systems. However as decentralization progresses over the next few years the strategy will be adapted as necessary. Progress of capacity development will be monitored and managed by using a staged capacity development model. A four stage model (advisor – counterpart focused) was originally developed and used in Timor-Leste by AusAID and partner agencies, however it is proposed for R4D to develop a program specific model that targets and supports institutional needs. The model will assist R4D counterparts to develop and monitor strategies and policy dialogue across the sub-sector and it will monitor and assess partner entities readiness to independently manage rural road development within an 8 year timeframe.
3. R4D will directly align and embed itself within MoI, formally establishing a counterpart relationship with DRBFC. The directorate has proposed and indicated an intention to establish a Department of Rural Roads (DRR) within the directorate. The design team believes the establishment of DRR, in the medium to long-term, will be important – as capacities develop – to manage rural roads within a sustainable context[102].If DRR is established and operational, this department will become the organizational counterpart for R4D[103]. As long as DRR is not established, the institutional home of R4D will be vested within the existing institutional set-up of MoI/DRBFC.
4. On an annual basis internal data will be collected concerning the capacity and performance of DRBFC's activities in the rural roads sub-sector. This Annual review of Building Capacity within DRBFC (ABCD Review) will be used as the basis for critical reflection about the efficacy of capacity development methods, and to inform forward planning as part of the established Annual

[98] Annex 24 provides detailed information of the envisaged DRBFC inputs at central, regional and district level and the approximate costs of these staff inputs.
[99] An interim capacity development framework is provided in Annex 8.
[100] Capacity development of contractors will largely be managed by the R4D sister program currently being implemented by the ILO i.e. the EC-funded (ILO implemented) RRRMP. The Business Opportunity and Support Services (BOSS) project also provides support to Timor Leste contractors.
[101] This overriding strategy is based upon AusAID's definition of capacity development (2004).
[102] At this point in time, it is uncertain whether the DRR will be established in the near future. On mobilization, R4D will be guided by MoI (through DRBFC) with regards to the establishment of DRR. If GoTL confirms the decision to establish the DRR, R4D will work closely with DRBFC to support the initiative. In doing so, it is proposed R4D will provide appropriate resources (financial and human resource) to support and supplement DRBFC to establish DRR
[103] It should be noted; if DRR is not established then no dedicated institutional home within DRBFC will exist for R4D and necessary capacities for planning and delivering investments in rural road works will then need to be created within the existing institutional structure of DRBFC.

Action Planning process. The ABCD Reviews will also be used answer the question "if R4D is not delivering key program outputs on time, within budget and of sufficient quality, why not?"

3.2.3 Priority Activities

175. Priority capacity development activities and initiatives to be supported prior to the start of R4D and during its implementation, include;

i. Using existing ILO and AusAID resources, start as soon as possible –i.e. before the official start of R4D – in supporting MoI to examine options to deploy resources to establish the DRR or (if this is not likely to happen within the foreseeable future) to ensure that provisions are made to deploy the necessary counterpart staff; options and arrangements to re-deploy existing TIM-Works SEFOPE technical staff to DRBFC as counterpart staff and preparing management and technical strategies to expend the joint GoTL/R4D budget in support of rural road development allocated for 2012[104].

ii. Immediately – i.e. before the official start of R4D and using existing AusAID and ILO resources – initiate management, planning and technical implementation of a jointly agreed 2012 rural roads program to build, rehabilitate and maintain identified rural roads according to, and within the joint GoTL/R4D fiscal envelope (i.e. quickly initiate activities associated with jointly agreed rural roads rehabilitation – based upon the TIM-Works model), as determined/agreed in 'i.' above.

iii. Working with key counterparts within the MoI (through the DRBFC), R4D will support the development and management of DRBFC knowledge management to guide the program in the acquisition, documentation and management of key data and information which will inform ongoing capacity development priorities and overall program management.

iv. Working with key counterparts within the MoI (through DRBFC) to collaboratively develop a detailed capacity needs assessment and capacity development framework[105] to guide the implementation of capacity development activities. The R4D will establish realistic capacity development targets for the four-year program period. These targets will be articulated in the capacity development framework and will be integrated into and monitored through the program M&E framework. This capacity needs assessment and capacity development framework will extend beyond the immediate needs of MoI and will take into account liaison and interface with other relevant GoTL agencies working within and across the rural roads sector. It will also address key safeguard issues, including: gender and equity; disability; child protection; environmental safeguards, and climate change amongst others. The capacity needs assessment and capacity development framework will be initiated on mobilization and will in itself be a key capacity development activity lasting an estimated nine months.

v. Working with key counterparts within the MoI (through DRBFC) to collaboratively develop and implement a program specific staged capacity model appropriate to the needs of the R4D. The model should focus on institutional/organization capacity and be based on the staged capacity building modelling being used across a number of AusAID sponsored programs.[106] The development of the staged capacity development model will take place during the initial nine months of the program and will be the cornerstone of the overall capacity development framework.

[104] At the time of drafting of this design early indications are that GoTL will provide US$3 million dollars for the 2012 financial year. It is proposed that R4D will match this initial funding during the first year of operation to ensure ongoing and essential road development activities can start immediately on mobilization.
[105] This will become the final capacity development framework for R4D.
[106] Variations of the staged capacity development model are used by: the ADB Infrastructure Technical Assistance (operating in DRBFC), the AusAID Timor-Leste Public Sector Capacity Development Program , BESIK, PNG Transport Sector Program, and the Regional Assistance Mission to Solomon Islands – 3 Pillars (Joint Assessment of Agency Independence)

The staged capacity development model, coupled with the capacity needs assessment (ii. - above) will form the basis of a R4D capacity development framework. This framework will be used to guide capacity development activities [107] and monitor the progress of institutional capacity development – i.e. working towards institutional independence in managing the rural road sector.

vi. Working with key counterparts within the MoI (DRBFC) to collaboratively develop a detailed and comprehensive rural roads master plan – building on the rural roads master plan that was prepared recently with EC funding for MoI – including a rural roads data base, map portfolio and an affordable and realistic (i.e. taking into account delivery capacities) multi-year rural roads development and maintenance plan[108] which is endorsed by GoTL (through MoI) and jointly funded by government and R4D for the life of the program, i.e. 4 years until 2016, with GoTL gradually assuming an increasing responsibility for the funding of the rural road works. As with the development of the capacity needs assessment and the staged capacity development model, this activity is considered a key capacity development activity and will be implemented over a twelve month period.

   Apart from the rural roads master plan, other required operational tools and guidelines will be modified and/or developed as needed (including road selection criteria, database systems for contract management, contracting procedures and contract frameworks; quality control & quality assurance systems and procedures; technical guidelines; reporting formats). R4D will also support DRBFC in streamlining and standardizing and/or harmonizing procedures and standards for the planning and delivery of capital investments in the rural roads sub-sector in Timor-Leste

vii. Build Institutional capacity on gender mainstreaming. Considering the fact that DRBFC will be the main Government implementing partner of R4D, the Program's will focus on building the capacity of DRBFC to mainstream gender concerns into its work. This not only means to aim at a balanced staff representation in key positions in DRBFC – both at national and a district level (e.g. among regional engineers or district coordinators) – but also to encourage MoI and DRBFC to adopt specific gender policies (e.g. *Gender Equality Strategy/Action Plan*) to formalize its commitment to gender equality goals. R4D will also conduct basic training on gender mainstreaming concept and strategies for key MoI/DRBFC and MSATM Officials[109] and for the staff who will be directly involved in the R4D work and hold regular consultations with SEPI (Secretariat of State for the Promotion of Equality).

viii. Specific interventions aiming to build capacity and gender awareness at community level include:
   a. Provide basic OH&S training for communities and workers to encourage the use of protective materials such as masks, etc and understand the risks related to the work;
   b. Organize awareness raising training on gender equality at district level and in the Aldeias and Sucos that are involved in the works;
   c. Increase the number of women among 'skilled workers': organize technical training for women and men, ensuring that at least 30% of the participants are women;
   d. Implement and facilitate skills development activities for rural poor and vulnerable groups through R4D and other programs, projects and initiatives (for training on literacy, numeracy, basic business skills training, raising community awareness through life skills programs on road safety, primary health – with 50% of training beneficiaries to be women.

[107] The capacity development framework will replace the interim capacity development framework provided in Annex 8

[108] It is anticipated this activity will build upon the work done by an EU TA that developed a Master Plan for Rural Roads (2010).

[109] This is particularly relevant considering the fact that the Council of Ministers has passed on 24 Aug 2011 a Resolution establishing **Gender Working Groups (**GWG) in each Ministry. The GWG will be composed at national level by at least 4 directors nominated in each ministry. GWGs will also be created at the District Level. They will consist of representatives from the District Administrator's office, MED, MAF, MSS, MoE, MoH, the Ministry of Justice, Ministry of Infrastructure and Police Vulnerable Persons Unit and the Police Vulnerable Persons Unit. It is therefore essential to support the work of the GWG through building the capacity of MoI management on gender mainstreaming so that equality concerns will be integrated in the Annual Action Plan and Budget and in the planning and implementation of rural road works in particular.

e. Organize training for contractors – with the aim that at least 30% of the selected contractors are women – and motivate contractors to hire women and to prevent child labour through financial and non-financial incentives in the contract.

3.2.4 Additional Capacity Development Activities to be supported

176. Over the life of the program, R4D will allocate resources to support a wide variety of capacity development options to ensure competencies and capabilities are sustainably developed within the overall program context. Capacity development strategies and mechanisms to be used by R4D include[110]:

i. Rapid support for rural road rehabilitation and maintenance activities during 2012 to 'catalyse' capacity development processes (e.g. designing, planning, budgeting, procurement and monitoring activities) within DRBFC.
ii. Communication and knowledge management strategies which will inform the program and be used to encourage a demand driven response in addressing the lack of resourcing to the sector. This will also support relationship building between stakeholders and beneficiaries.
iii. Encouraging and supporting twinning opportunities with appropriate international agencies and entities e.g. the National Development Planning Agency (Bappenas) and Public Works in Indonesia (including Nusa Tenggara Timur).
iv. Technical assistance – deploying national and international specialists to facilitate program management and implementation. Specialists will be deployed to support direct and indirect capacity development activities[111] as appropriate and agreed by partner agencies.
v. Internships – linking existing and future (technical) expertise, mostly graduates, to address sector capacity gaps.
vi. Targeted and customized training. This may include short courses using local (e.g. polytechnic and the National Institute of Public Administration) and international providers.
vii. Coaching and mentoring – including using technical specialists appropriately.
viii. Establishing strategic links to government and non-government (donor) scholarship programs to ensure ongoing capacity requirements are addressed.
ix. On the job training to contractors and GoTL officials involved in the procurement of rural road works.

3.2.5 Specialist Technical Inputs

177. In consultation with partner agencies[112], the ILO will recruit specialist technical expertise to work within MoI and partner agencies. The specialist technical support will work closely with counterparts, through DRBFC's institutional set-up, to facilitate implementation of the Program.

178. The type, timing and duration of the proposed ILO staffing inputs are aligned with the expected DRBFC staffing inputs and capacity development requirements that have been identified during the design mission. Considering the current very low capacities within DRBFC, it is expected that throughout the entire period of 4 years of implementing R4D the ILO professional staff will not only be involved in capacity building but will also provide technical advice and inputs needed for the planning and implementation of the rural road works. As capacities within DRBFC for the planning and implementation of rural road works develop over time, the focus of the inputs of the ILO professional staff will gradually shift, in accordance with AusAID's 4-stage capacity development model that will be adopted by R4D.

[110] It is widely recognized capacity development goes well beyond training. The strategies outlined for R4D represent some appropriate alternative modalities likely to succeed in the context of the program. More information on the research associated with capacity development modalities may be found in the OECD – DAC sponsored paper: Training and Beyond (2010).
[111] This should allow R4D to address tensions which will exist when addressing absorptive and operational capacity within partner institutions.
[112] TORs will be jointly approved and deployment of nominated key ILO personnel must be endorsed and approved by GoTL.

179. During the first stage of this capacity development model – the Dependent Stage – the ILO professional staff will control most of the work functions and decisions and will do most of the work. During the second stage – the Guided Stage – the ILO staff still has a high level of control but DRBFC counterparts will undertake straightforward elements of the functions under the supervision or guidance of the ILO staff. During the third stage – i.e. the Assisted Stage – DRBFC counterpart staff will take the prime responsibility for the different functions and can handle most of the complex aspects and know when they need to ask for assistance from the ILO staff. During this stage the role of the ILO staff regarding the implementation of the works component will be more one of support, with occasional reminders and prompts to follow through, and occasional higher levels of support for new situations of for infrequent events (such as preparing an annual budget).

180. Following the design mission's assessment of current capacity gaps in DRBFC, it is not realistic to expect that it will be possible within a relatively short period of 4 years to develop capacities at the independent level. A more realistic target would be to achieve a level of capacities in the range of guided to assisted capacities. For the purpose of defining specific ILO specialist staff input requirements, it has been assumed that at least during the first three year of implementation R4D will require ILO specialist inputs for the key functions that have been identified. This is reflected in the staff inputs. Depending on the outcome of the mid-term evaluation at the end of the second year of implementation, supported with findings from the independent AusAID/ILO annual monitoring (by an Independent Monitoring Group – IMG), it will be decided whether further ILO specialist inputs will be required during the fourth year – in addition to the specialist ILO staffing inputs that have been scheduled in the R4D budget.

181. The attached interim capacity development framework (Annex 8) articulates the rationale for allocating resources requiring specialist technical inputs. Section 4.2 provides details of the proposed timing of the specialist inputs. Specialist ILO TA staff to be deployed (draft outlines of the TORs for the key positions are outlined in Annex 9) include:

i. **Chief Technical Advisor** (4 years) – in association with the MoI/DRBFC nominee for R4D he/she will be responsible for overall management and technical implementation of the program.
ii. **Institutional/Capacity Development Specialist** (3 years – with further inputs during the 4th year as required) – in association with a DRBFC nominee or team, collaboratively manage capacity development initiatives supported by R4D, including: guiding the capacity needs assessment and the development and implementation of a staged capacity development model. He/she will also be responsible for guiding the development and institutionalization of decentralization practices supporting rural road management and development at sub-national level and will have a key role in guiding knowledge management.
iii. **Roads Engineering Specialist** (3 years – with further inputs during the 4th year as required); – in association with a DRBFC nominee or team, will be responsible for: i) all the engineering aspects related to the planning, contracting, implementation and quality control & assurance aspects of R4D (including environmental aspects), and; ii) the development and implementation of a comprehensive rural roads master plan.
iv. **M&E / Knowledge Management Specialist** (3 years; with further inputs during the 4th year as required) – in association with a DRBFC nominee or team: i) ensure that the R4D M&E framework is appropriately established, managed and implemented using partner systems and structures where possible; ii) develop and implement a communication and knowledge management strategy resulting in increased awareness in support of rural roads management i.e. encouraging demand driven resource allocations to the sector, and; iii) guide the development and institutionalization of interagency liaison and links (i.e. MoI, MSA, ADN, and MoF) in support of rural roads management and development..
v. **MIS Specialist** (1 year; with intermittent inputs from the second year onwards, as required) – in association with a DRBFC nominee or team, be responsible for the design, testing and operationalization of an effective management information system that can be used for planning,

programming, budgeting and monitoring investments in rural road works. To the extent possible, the development of the system will build on already available systems within DRBFC.

vi. **GIS Specialist** (1 year; with further inputs as required afterwards) – in association with a DRBFC nominee or team, be responsible for the design, testing and operationalization of an effective geographic information system that can be used as a supportive and complementary tool to the MIS. To the extent possible, the development of the system will build on already available systems within DRBFC.

vii. **Contract Management/Procurement Specialist** (1 year; with further inputs afterwards, as required) - in association with a DRBFC nominee or team provide guidance regarding all procurement and contract management related issues and provide guidance and support in the modification, development, testing and/or operationalization of systems and procedures related to procurement and contract management.

viii. **Community Development/Gender Specialist** (2.75 years, with further inputs during the 4th year, as required) - in association with a DRBFC nominee or team guide the development and implementation of community and disability initiatives in support of rural road management and development and guide the development and institutionalization of gender appropriate practices supporting rural road management and development.

ix. **Regional Engineers** (5 positions; for 4 years) - in association with a DRBFC nominee or team support the technical management and implementation of all rural road initiatives at the sub-national level. It is anticipated these positions will be filled where possible, by the ILO Regional Engineers that are currently employed by the ILO under the TIM-Works project. .

x. **District R4D Coordinators** (national ILO staff positions[113]: for the first year 5 positions covering 5 districts and with the provision – as required – in the budget to expand these positions to 13 to cover 13 districts from the second year of implementation onwards) – in association with DRBFC nominated district staff and other key district stakeholders – ensure an effective outreach and implementation of R4D's capacity building activities and policy dialogue and implementation support (beyond the technical engineering support) – and to provide a link between the Dili-based R4D staff and the district – it is important to have R4D's presence/support at district level. The District Coordinators would ensure such an outreach and would also provide a key liaison and coordination function at district level. To test the effectiveness of this set-up it is proposed that this arrangement is first tested in 5 districts during the first year of implementation. Depending on its effectiveness, it will be decided whether this set-up will be continued (and expanded to 13 districts from the second year onwards) or not.

xi. **Other Technical Expertise** (as required and identified): When requirements for additional technical expertise (national and international) are identified and endorsed by R4D partners, detailed TORs and recruitment strategies will be jointly developed and personnel recruited to allow for the appropriate deployment of the resources.

3.3 Capital Investments in Rural Road Works

3.3.1 Introduction

182. Capacity development will take place on the back of substantial AusAID capital investments for rural road works through R4D and envisaged GoTL investments supported by R4D. R4D integrates capacity building support with capital investments for rural road works as this concept has proven to be very effective both in Timor-Leste (e.g. through the TIM-Works project) and in other countries where similar programs have been implemented.

183. To focus solely on capacity building would likely result in a further deterioration in the rural road network before adequate public sector capacity is built to manage necessary investments. Direct implementation support in delivering capital investments (funded by both GoTL and AusAID) will also

[113] It is not envisaged that these ILO staff positions will become part of the DRBFC or DA establishment.

demonstrate the process and benefits of rural road rehabilitation and maintenance and the need for appropriate budget allocations to this sub-sector.

184. Whereas it is envisaged that AusAID's direct funding of investments in rural road works through R4D will gradually decrease over the lifetime of the program, it is expected that GoTL will gradually increase its contribution to capital investments for rural road works supported by R4D. A mixed approach, including direct implementation, is appropriate given the current capacity constraints in the public sector and the clear and pressing need for the rehabilitation and maintenance of rural roads.

185. R4D will take a leading role in supporting GoTL in planning and implementing rural road works and in coordinating activities with other donors. At present, donor-supported activities at policy and operational level in the rural roads sector are not coordinated by DRBFC and MoI. However, with R4D providing the necessary advisory support to MoI and DRBFC leadership of rural roads, including a central role for MoI in donor coordination, it is expected that the overall effectiveness and sustainability of the interventions of the various stakeholders in the rural roads sector can be improved

3.3.2 Budgeting for Investments in Rural Roads

186. Currently there is no GoTL investment plan or specific budget allocation for rural roads. R4D will support the GoTL and MoI/DRBFC in developing plans and budget requests, in engaging in a policy dialogue and in the development of required policies, strategies and multi-year investment plans.

187. Whereas GoTL/MoI has expressed its full support to R4D and its intention to be fully engaged and commit counterpart funds for capital investments and staffing costs, GoTL's annual budget approval procedures and processes make it difficult for MoI to make firm commitments at this stage. Compounding to this is the limited investments by GoTL in the country's rural road network and the government mandating other ministries and agencies (MSATM, ADN) to procure infrastructure services.

188. In addition, DRBFC's current (limited) capacities are fully absorbed in implementing its current work load. Mobilizing additional capacities in DRBFC – to be dedicated to work exclusively for rural road works – is required to facilitate an effective engagement of DRBFC with R4D. It cannot be expected at this stage – with R4D not approved yet – that GoTL/MoI can make firm commitments regarding it counterpart contributions.

189. It is expected that with increasing delivery capacities within DRBFC for the planning and implementation of capital investments in rural road works – combined with a growing awareness among senior GoTL decision makers about the importance of the development and maintenance of Timor-Leste's rural road network – budget allocations will increase and eventually reach a sustainable level for the ongoing management of the rural road network. AusAID and the ILO will a pursue the necessary policy dialogue with MoI, the Ministry of Finance, other relevant agencies and relevant ministers to build support for increased budget allocations to rural roads.

190. Whereas policy advocacy processes can take considerable time before yielding results, it is expected that GoTL's high priority to rural roads development and capacity building in the public sector – as articulated in the SDP – will provide a receptive environment that will enable an acceleration of the results from those policy advocacy activities

191. R4D will assist MoI to complete a comprehensive Rural Roads Master Plan (RRMP) and, once finalized, the RRMP will provide the guiding framework for investments in the rural roads sector and this will be reflected in MoI's Annual Action Plans (AAPs). The comprehensive RRMP will include multi-year investment plans for investments in rural road construction, rehabilitation and maintenance and these investment plans will reflect life-cycle costs (including initial investments for construction and rehabilitation, followed by investments for routine and periodic maintenance).

3.3.3 Selection of Investments in Road Works

192. Within the first year of implementation of R4D it is foreseen that R4D will provide the leading support to MoI in developing a comprehensive GoTL rural road master plan[114] which will then constitute the basis for investments from the 2nd year onwards. Pending the completion of such a comprehensive rural roads master plan, guidelines will be required to guide the prioritization of investments in rural road works. An outline of a draft framework that could be considered for guiding the prioritization and selection of investments in AusAID and GoTL-funded rural road works is presented in Annex 5. During the inception phase of R4D this framework needs to be further discussed and finalized in close consultation with the key stakeholders.

193. The prioritization and selection of rural road works will be done in accordance with GoTL priorities and will be guided by the Strategic Development Plan (SDP), agreed prioritization criteria, the priorities of DRBFC and District Administrations, and – initially – by the draft rural roads master plan that was developed with EC-funding.

194. The EC-funded draft Master Plan for Rural Roads (MPRR) provides valuable information, guidelines and recommendations related to strategies, time-frame, modalities, standards and criteria related to the planning and delivery of investments required for the development and maintenance of the rural roads network in Timor-Leste. The draft MPRR also takes into account capacity constraints in forecasting a realistically feasible time-frame for bringing Timor-Leste's rural road network in a good condition. Further work on the draft RRMP is required as not all the existing rural roads in Timor-Leste were surveyed yet and further consultations with MoI and GoTL may be required to ensure that the MPRR reflects current GoTL investment priorities strategies for the rural roads sub-sector. A succinct summary of information provided in the MPRR and its recommendations is presented in Annex 26.

195. Once the RRMP is updated and finalized, this Rural Roads Master Plan will provide the guiding framework for investments in the rural roads sector and this will be reflected in MoI's Annual Action Plans (AAPs). The comprehensive RRMP will include multi-year investment plans for investments in rural road construction, rehabilitation and maintenance and these investment plans will reflect life-cycle costs (including initial investments for construction and rehabilitation, followed by investments for routine and periodic maintenance).

196. An equitable geographical coverage of the 13 districts is envisaged which aims at targeting rural road investments that maximize poverty reduction and improve the overall connectivity of the transport network. This will be done by prioritizing works which maximize economic, social and environmental benefits. As part of identification, prioritization and selection process and depending on cost-effectiveness, population densities, and other accessibility indicators it may be decided to apply a staged approach whereby tracks are first improved, then widened and finally upgraded to rural road standard. Investments in rural road works implemented under other rural road development and maintenance projects will also be taken into account to ensure equitable geographical coverage. Linkages with investments in the national and district road network will also be considered in the selection of rural road works, from the point of view of ensuring road connectivity within road networks in the districts.

197. In prioritizing and selecting road works, high priority will be given to investments in areas with high rural population densities and where rural populations are comparatively isolated from access to social and economic facilities and services. R4D will also take into account rural road works implemented

[114] This rural roads master plan will include a multi-year investment strategy – including life-cycle costing for investments in rural road works – for the development and maintenance of the rural roads network in Timor-Leste. It will also include strategies, plans, guidelines, approaches and standards related to: i) identification, prioritization and selection of rural road works, including maintenance; ii) contracting modalities; implementation approaches and technologies; design specifications and standards; iii) adherence to decent work standards and principles; iv) quality control and quality assurance; v) the implementation of social and environment safeguards (including gender equality approaches); vi) regular review and updating of the rural roads master plan.

and/or planned under other rural road projects and the need to maintain rural roads that are still maintainable. For these reasons there may thus be substantial variations in terms of the length of road works per district that will be implemented through R4D, and with the support of R4D.

198. The SDP prioritizes the rehabilitation and maintenance of existing rural roads over the construction of new rural roads – a key justification being the fact that the rural roads network in Timor-Leste is already quite dense and that it is much more cost-effective to invest in rehabilitating and maintaining existing rural roads than constructing new roads. However, DRBFC indicated that it will not exclude the possibility of constructing new rural roads, if justified in terms of; i) road connectivity; ii) investment costs per capita (of the population benefiting from the road link), and; iii) benefits from improved access to social and economic facilities expected from new road links. The justification and feasibility for deciding on the construction of new road links should be supported by the GoTL's understanding of life-cycle costs of investments in the road network and should therefore be reflected through the inclusion of adequate investments in maintenance in the RRMP.

199. Considering the already enormous investment requirements for the rehabilitation and maintenance of the existing rural road network, and in line with the priorities as outlined in the SDP, R4D will limit its AusAID's capital investments in rural road works to rehabilitation and maintenance works. Through the envisaged GoTL funding for rural road works, supported by R4D, the inclusion of limited new rural road construction may be undertaken, as and when justified (see paragraph 195).

3.3.4 R4D Budget Requirements for Rural Road Investments

200. With the levels of technical assistance foreseen under R4D for capacity building and implementation support – and considering capacity constraints among small-scale contractors and experiences from TIM-Works – it appears to be possible to deliver capital investments for the construction, rehabilitation and maintenance of rural roads for approximately US$ 31 million over a 4 years implementation period.[115]. This includes the expected AusAID contribution and the recommended allocation of GoTL investments for which R4D will provide the necessary support to plan and deliver them effectively through the government system (DRBFC and MSATM). Table 3 presents an overview of the estimated capacity of R4D to deliver capital investments for different types of works.

[115] Including AusAID-funded capital investments delivered by R4D and GoTL capital investments delivered with the support of R4D through government systems.

Table 3: Proposed Capital Investments from AusAID and GoTL for Rural Road Works under R4D

			Year 1		Year 2		Year 3		Year 4		Total	
		Unit cost per km (US$)	Km	Cost (US$)	Km	Cost (US$)	Km	Cost (US$)	Km	Cost (US$)	Km	Cost (US$)
			Expected Contribution from AusAID for Capital Investment in Rural Road Works under R4D									
AusAID	**Rehabilitation**	50,000	30	1,500,000	80	4,000,000	65	3,250,000	50	2,500,000	**225**	**11,250,000**
	Routine maint		400	320,000	280	224,000	155	124,000	300	240,000	**300**	**908,000**
	R4D rehab roads	800	0	0	30	24,000	55	44,000	150	120,000	150	188,000
	TIM-Works reh.	800	200	160,000	100	80,000	0	0	0	0	0	240,000
	TIM-Works maint.	800	200	160,000	100	80,000	0	0	0	0	0	240,000
	RRMP	800	0	0	50	40,000	100	80,000	150	120,000	150	240,000
	Periodic maint.		80	640,000	50	400,000	0	0	0	0	**130**	**1,040,000**
	R4D	8,000	0	0	0	0	0	0	0	0	0	0
	TIM-Works reh.	8,000	40	320,000	25	200,000	0	0	0	0	65	520,000
	TIM-Works maint.	8,000	40	320,000	25	200,000	0	0	0	0	65	520,000
	AusAID		**2,460,000**		**4,624,000**		**3,374,000**		**2,740,000**		**13,198,000**	
			Recommended Allocation of GoTL Funds for Capital Investment in Rural Road Works, to be delivered with Support from R4D									
GoTL	**Road opening**	20,000	5	100,000	5	100,000	10	200,000	20	400,000	**40**	**800,000**
	Rehabilitation	50,000	20	1,000,000	35	1,750,000	70	3,500,000	100	5,000,000	**225**	**11,250,000**
	Routine maint		300	240,000	520	416,000	810	648,000	850	680,000	**850**	**1,984,000**
	R4D rehab roads	800	0	0	20	16,000	110	88,000	150	120,000	150	224,000
	TIM-Works reh.	800	100	80,000	200	160,000	300	240,000	300	240,000	300	720,000
	TIM-Works maint.	800	100	80,000	200	160,000	300	240,000	300	240,000	300	720,000
	Roads other proj.	800	100	80,000	100	80,000	100	80,000	100	80,000	100	320,000
	Periodic maint.		70	560,000	100	800,000	150	1,200,000	250	2,000,000	**570**	**4,560,000**
	R4D roads	8,000	0	0	0	0	0	0	50	400,000	50	400,000
	TIM-Works reh.	8,000	35	280,000	50	400,000	75	600,000	75	600,000	235	1,880,000
	TIM-Works maint.	8,000	35	280,000	50	400,000	75	600,000	75	600,000	235	1,880,000
	RRMP	8,000	0	0	0	0	0	0	50	400,000	50	400,000
	GoTL		**1,900,000**		**3,066,000**		**5,548,000**		**8,080,000**		**18,594,000**	
			Total Expected Funding from AusAID and GoTL for Capital Investments in Rural Road Works to be delivered through R4D									
TOTAL R4D			km	US$ million	km	US$ million	km	US$ million	km	US$ million	km	US$ million
New construction			5	0.10	5	0.10	10	0.20	20	0.40	40	0.80
Rehabilitation			50	2.50	115	5.75	135	6.75	150	7.50	450	22.50
Routine Maintenance			700	0.56	800	0.64	965	0.77	1,150	0.92	1,150	2.89
Periodic Maintenance			150	1.20	150	1.20	150	1.20	250	2.00	700	5.60
TOTAL (US$ million)				**4.36**		**7.69**		**8.92**		**10.82**		**31.79**

Note: maintenance on roads from other projects includes *Our Roads Our Future* (target 90 km rural road) and *RDP III* (target 45 km)

201. In the scenario as presented in table 3, the capital investment contribution from AusAID initially increases (from year 1 to 2) and then decreases (from year 2 to 4) whereas GoTL's capital investments gradually increase and level out at around US$ 8 million in year 4. At the funding levels as presented in table 3, the total length of the rural road network that would be in a good condition and that is being maintained at the end of the program would be around 1,150 km. This represents about 38% of the total rural road network in Timor-Leste. R4D. Through R4D systems and capacities will also be developed to enable a continuation (as assisted level) of construction and rehabilitation activities and the maintenance of the maintainable roads – at least at a level of GoTL investments similar to the GoTL's recommended level of capital investments during R4D's 4th year of implementation – after 4 years.

202. The total funding package for capital investments as presented in table 3 (US$ 31.79 million) and the proposed gradually increase of funds for capital investments from year 1 to year 4 is considered both

appropriate (in terms of current and expected future absorption and implementation capacities in the public and private sector) and significant. The levels of investments as presented in table 3 are in line with recommendations made in the EC-funded draft rural roads master plan.

203. Current capacities among small local contractors who will be engaged in R4D's rural road works are low and these capacities are only expected to increase gradually over the coming years[116]. This factor has also been considered in determining the expected optimum level of investments that can be delivered with R4D support. A budget of around US$ 31 million for capital investments in rural road works over a period of 4 years to be delivered with R4D support is considered to be an optimum budget. If substantially more capital investments would have to be delivered this is likely to compromise the quality of the works. Substantially lower levels of capital investments would mean that the increasing capacities would not be fully utilized.

204. Compared to the GoTL's SDP for 2011-2030 – which aims at the rehabilitation of the entire rural road network of 3,025 km in 2015 – through R4D only 38% of this target will be achieved. While appreciating the GoTL's ambition of rehabilitating the country's entire rural road network within a very short period of 4 years, it is not realistic to expect that this will materialize, given the various constraints in the public and private sector. According to the design mission a more realistic time-frame for bringing the country's entire rural road network in a good condition – which assumes substantial commitments from GoTL – would be a period of 10 years. A time-frame of 10 years is in line with recommendations of the draft rural roads master plan that was recently completed with support from the EC.

205. During the 3rd year of implementation, an assessment of delivery capacities for investments in rural road works will be made and, subject to the outcome of this assessment (and a positive decision regarding an extension of R4D), annual capital investments may be increased to further accelerate the rehabilitation and upkeep of the rural roads network. Annex 6 presents and indicative investment plan to rehabilitate all rural roads in Timor-Leste to a maintainable standard[117] and maintain them. Annex 6 shows that over a period of 10 years approximately US$ 146 million in capital investments will be required to bring the rural roads network up to standard.

206. Annex 6 also provides an indicative estimate of funding requirements for capital investments under an eventual extension of R4D for another 4 years. The estimate shows that US$ 69 million will be required for capital investments in rural road works for the period 2016-2019. It is expected that the majority of these funds would come from the GoTL state budget and that the AusAID funding for capital investments would gradually decrease. In absolute terms it is expected that AusAID's budget allocation for investments in capacity building would gradually decline over the period 2016-2019.

207. During the first year of implementation, i.e. the inception period, it is proposed to limit the geographical coverage for the implementation of construction and rehabilitation works to the five districts where DRBFC's Regional Offices are located considering the time constraints during the first year of implementation. These time constraints relate to the time needed for planning, preparation and implementation of rural road works and also takes into account the fact that R4D staff and MoI/DRBFC staff need to be recruited/mobilized and that systems, procedures and operational tools need to established. In addition, equipment needs to be procured. For above mentioned reasons it is proposed to limit the physical works to 5 districts during the first year[118]. From the second year onwards, physical works will be implemented in all 13 districts

[116] The recently approved EC-funded Rural Roads Rehabilitation and Maintenance Project (RRRMP) will be the main vehicle for further increasing capacities among the local contractors for the implementation of rural road works using labour-based methods.
[117] A detailed investment plan will be developed as part of the formulation of a rural roads master plan under R4D. This master plan will also include details of a maintenance (investment) plan.
[118] With the exception of maintenance works as these will be implemented on all the completed TIM-Works and RRMP roads (which have a geographic coverage of more than 5 districts).

208. Where appropriate and cost-effective[119] and without compromising quality, R4D aims to apply labour-based methods, using a balanced mix of labour and equipment, into the rural road works. Where feasible, integrating labour-based methods in the sub-sector will reduce the need for imported equipment and materials and instead increase the use of local resources to implement road rehabilitation and maintenance works. To ensure an adequate quality of the infrastructure works, including adequate drainage structures, slope protection, the consistent use of good quality gravel and the pavement of highly erodable or very steep road sections, a unit cost rate of US$ 50,000 per km is used for budgeting the costs of rural road rehabilitation works under R4D[120], as reflected in table 3.

209. The construction of limited numbers of new rural roads is also envisaged in the investment plan. The normal practice within DRBFC of opening up new rural roads is to do this through force account, using its own heavy equipment and personnel. According to DRBFC the cost per km of the initial opening of rural roads ranges between US$ 12,500 and US$ 25,000 per km (with an average of US$ 20,000 per km). After the initial opening up of a new road however, follow-up investments in developing the road (i.e. surfacing and the provision of drainage and protection structures) are usually lacking. Multi-year investment plans that reflect the life-cycle costs of a road are thus required (and need to be reflected in the RRMP) to ensure the allocation of sufficient funds over the life-time of a road.

210. The proposed funding for capital investments in the maintenance of maintainable rural roads will not only include the maintenance of rural roads that will be rehabilitated through R4D but it will also target rural roads rehabilitated by TIM-Works, the forthcoming RRRMP and rural roads rehabilitated by other rural road rehabilitation/construction projects. Other rural roads that are still maintainable will also be considered for maintenance.

211. The extent to which it will be possible to maintain the entire network of maintainable roads will also depend on the level of GoTL funding for road maintenance. Maintenance activities foreseen include routine maintenance and periodic maintenance[121]. Based on current experiences with routine and periodic maintenance of rural roads in Timor-Leste, and guided by available information about unit-cost rates, it is estimated that the annual costs per km for routine and periodic maintenance of rural roads are respectively US$ 800[122] and US$ 8,000[123].

3.3.5 Short-term Employment Opportunities

212. With an estimated 40% of the capital investment costs for rural road rehabilitation (this also includes work on newly opened roads) and periodic maintenance spent on labour and with an average

[119] Quality assurance in the delivery of the physical works is key in this. In meetings with MoI stakeholders, district administrations, beneficiaries and other projects (like TIM-Works, RDP III and *Our Roads, Our Future* the need for the delivery of quality infrastructure was emphasized.

[120] Under TIM-Works the unit cost rates for rural road rehabilitation works are considerably lower (i.e. around US$ 25,000 per km). The difference is explained by the fact that under TIM-Works savings are made by not including everywhere masonry side drains or slope protection/stabilization structures, by hauling gravel from nearby locations (thereby sometimes compromising on the quality) and by not having a provision for providing pavements at highly erodable or steep road sections (the SDP refers to asphalting rural roads – whereas it is not clear whether this means that the GoTL intends to asphalt all rural roads – the inclusion of paved sections along critical sections of rural roads is in line with recommendations of the SDP). An average unit cost rate of US$ 50,000 per km for rehabilitation works is in accordance with findings from the EC-funded technical assistance to the development of a rural roads master plan (implemented under RDP III) and would ensure that construction level are at a level that ensures all-year round motorable road access and minimizes maintenance costs (thereby extending the life-time of the roads).

[121] Routine maintenance includes small spot repairs of the gravel surface, bush clearing, grass cutting, and clearing side drains, bridges and culverts. Periodic maintenance – which needs to be undertaken every 4th year – involves re-gravelling, re-sealing small defects in sealed surfaces and repairing structures.

[122] This is in line with recommendations of the EC-funded master plan, current rates used in TIM-Works and in accordance with the costs for routine maintenance of similar rural road works in other developing countries.

[123] As no periodic maintenance on rural roads has been done yet in Timor-Leste, no actual figures on unit (per km) costs for periodic maintenance are available. The used unit cost rate of US$ 8,000 per km has been derived from unit rate costs derived from the EC-financed rural roads master plan and incorporates items of work that are typical for periodic maintenance of gravelled rural roads (with limited sections of pavement; i.e. in particular steep section and sections that are easily erodable).

daily wage rate for unskilled labour of US$ 3[124], it can be calculated that under the scenario as outlined in table 2 approximately 3.85 million workdays would be generated through these investments. For capital investments in routine maintenance the labour costs constitute about 85% of the total capital investment costs and this translates to about 0.82 million labour-days. Thus, in total about 4.7 million labour-days of short-term employment would be generated by R4D, based on the investments scenario as presented in table 2[125].

213. Based on TIM-Works' experiences, it appears that a job rotation cycle of 80 days for rehabilitation works provides a practical balance between requirements/limitations related to the organization and implementation of the works[126] and the aim of promoting the principle of equal access to job opportunities. Assuming an 80-days job rotation system for workers engaged in rehabilitation works, this would translate to short-term income support to around 48,000 workers and their families.

214. For routine maintenance activities the most practical arrangement – as also applied by TIM-Works – is to rotate maintenance workers from the communities on an annual basis. With approximately 200 work-days per maintenance worker required per year, this translates to the employment of about 4,000 workers.

215. A total of around 52,000 workers and their families would thus benefit from the short-term employment opportunities by the capital investments in the rural road works. With a workforce in the informal sector of approximately 350,000 people, R4D will thus be able to provide as an additional benefit (i.e. in addition to the benefits associated with the effects and impacts of improved rural road access) short-term employment opportunities for about 15% of Timor-Leste's workforce that is engaged in the informal sector.

3.3.6 Contracting and Implementation

216. The investment plan as proposed in table 3 also considers the delivery capacity of the small contractors who will be engaged in the rehabilitation and maintenance works. TIM-Works experiences indicate that trained contractors will be able to deliver approximately 1 km per month. With an effective construction period of 5-6 months per year (taking into account the time required for surveying, designing, cost-estimation, tendering, contract awarding and mobilization, and also considering constraints related to the rainy season and the seasonal availability of labour[127] and GoTL's annual budget planning cycle[128]) about 5 km per year can be completed by a small contractor (contract values for such contracts are not likely to exceed US$ 250,000).

217. During the first year of implementation 50 km of rural road rehabilitation works are targeted in 5 districts. This would require approximately 10 contractors, each with a contract covering an average

[124] For the purpose of budgeting, the daily wage rate as currently used by TIM-Works is being used. At the time of implementation, wage rates will be reviewed in consultation with GoTL at a level that ensures an adequate supply of labour without distorting local labour markets.
[125] This is the total for both the R4D and MOI capital investments.
[126] Like the optimum size and number of labour-gangs that can be effectively employed and supervised by the contractors and the fact that Aldeias don't allow workers who are not residing in their Aldeia to work on road sections that are situated within their administrative boundaries.
[127] In order not to disturb the local labour market, construction/rehabilitation activities will be scaled down during the peak agricultural season to avoid unwarranted competition of unskilled and skilled casual labour.
[128] The budget planning cycle starts in March at local level and in March/April workshops are held at central level to discuss the fiscal envelope for the next year. The State Budget preparations start in May: Line ministries submit their proposals (which also include local-level proposals submitted through the district administrations) to MOF and the proposals are then reviewed by the Budget Review Committee (including consultations with line ministries). Subsequently proposals are submitted to the Council of Ministers for endorsement. The next step is the approval by Parliament and finally the State Budget needs approval from the President. Usually the State Budget is approved in January or February.

length of 5 km. From the second year onwards works will be implemented in all 13 districts and per year it is envisaged that – on average – per district about 10 km of rehabilitation works will be implemented[129].

218. Periodic maintenance will be carried out during the first three years of implementation on about 150 km of rural roads. It is envisaged that one contractor can carry out 10-15 km of periodic maintenance per year and this would translate to the need of 10-15 contractors per year (with contract values in the range of US$ 80,000 to 120,000 per contract). During the 4th year of implementation periodic maintenance of 250 km of rural roads is foreseen, requiring about 17-25 contractors.

219. For routine maintenance small local contractors will be engaged as well. Experiences from TIM-Works indicate that directly contracting communities for routine maintenance works (which typically involves very small contract amounts) is very time consuming for project management in terms of contracting, contract management and supervision. In addition, outside technical assistance is required for these communities as they lack the knowledge to do this on their own. It is therefore recommended that rehabilitation and maintenance works under R4D are all being contracted to small local contractors with the notion that routine maintenance works will have to be sub-contracted by these contractors to communities (this will be governed by specific stipulations and clauses in the contractors' contracts).

220. These routine maintenance contractors will be required to sub-contract the routine maintenance works to local communities in accordance with specific modalities, standards and criteria that will form part of the contract (i.e. specific conditions of the contract and contract clauses). During the first year R4D will provide routine maintenance for about 700 km of rural roads. This figure gradually increases during the 2nd, 3rd and 4th year of implementation. During the 4th year an estimated 1,150 km of rural roads will receive routine maintenance. On average, this translates to around 54 to 88 km or rural roads routine maintenance per district per year.

221. For practical reasons (contractors' logistics vis-à-vis oversight and supervision requirements) it is proposed to contract one contractor per district to implement the routine maintenance works. This arrangement implies that 13 contractors would be required to undertake the routine maintenance works. Contract values under these routine maintenance contracts would be in the range of about US $ 44,000 to US$ 70,000.

222. Based on above proposed arrangements, the number of contracts that would be required to implement R4D is 200[130] as can be seen in table 4.

Table 4: Number of contracts that have to be managed by R4D

		Year 1	Year 2	Year 3	Year 4	Total
1	Rehabilitation/Construction	10	23	27	30	90
2	Periodic Maintenance	13	13	13	19	58
3	Routine Maintenance	13	13	13	13	52
	Total no. of contracts	36	49	53	62	200

223. Table 4 shows that the number of contracts that have to be managed by R4D ranges from 36 in the 1st year to 62 in the 4th year of implementation. These numbers of contracts are considered to manageable by DRBFC and/or the DAs and this could be sustained beyond R4D once contract and contractors' management capacities are in place.

[129] With about 115 – 150 km of road rehabilitation per year; see table 3.

[130] The fact that 200 contracts will be required does not automatically imply that 200 contractors will be required for the implementation of the works. In the first year of implementation 36 contractors will be needed and this number gradually increases to 62 for the 4th year of implementation of R4D

224. Whereas TIM-Works will have trained 19 contractors in the management and implementation of labour-based rural road rehabilitation works by February 2012 and the recently approved EC-funded RRRMP targets the training of another 50 small local contractors over a period of 3 years (2012-2015), the number of contractors required for R4D in the period 2012-2015 – as shown in table 4 – is higher than the number of contractors that will have been trained (through TIM-Works and RRRMP) in that period and that will be available for R4D works (also considering the fact that RRRMP will need a number of the contractors that they will train for the implementation of its own rural road rehabilitation works).

225. The above described situation implies that in the bidding process for R4D works the opportunity should also be provided for small local contractors (including contractors managed/directed by women and/or that engage females engineers) – that have not been trained in LRB rural road works but who have pre-qualified through an agreed pre-qualification system, to bid for works – whether this is for works funded by AusAID's capital investments or for works funded by the expected GoTL budget for capital investments in rural roads. For the AusAID budget for capital investments, the approval of works contracts will be in accordance with ILO procedures and regulations. ILO's procedures regarding the procurement of works, services and goods are summarized in Annex 7. For the approval of works procured with GoTL funding, DRBFC's and/or the DAs approval procedures will be followed.

226. Irrespective of the approval system through which the works are being procured, it is essential that agreement is reached between DRBFC, MSATM and R4D about key elements in the procurement procedure, in particular those regarding contractors' pre-qualification criteria to participate in bidding (based on agreed contractors qualifications and experience as formalized in a contractors' registration system and also including gender equality and environmental considerations).

227. This harmonization is of key importance to ensure the required level of skills and competencies of the selected contractors that will be required to implement the works at an acceptable standard, to increase the effectiveness of the procurement procedures and to align with R4D's social and environmental safeguards frameworks. This issue will require a policy dialogue early on during the inception phase of R4D. R4D will also aim at standardizing bidding documents[131] to be used – irrespective of the fact whether works are procured through the ILO approval system or the GoTL approval system – and this also requires policy dialogue with DRBFC and MSATM early on during the inception phase of R4D.

228. The establishment of efficient and effective procurement procedures and contractual frameworks for the procurement of works is seen as a very important activity under R4D. Based on the experiences during the first year with the procurement of work, the procedures and contractual frameworks used will be reviewed and, as necessary, further improved. For the kind of works envisaged under R4D, the adaptation of the FIDIC short form of contract[132] may be considered as this format has been developed especially for works of a simple nature and a short duration (as is typically the case with rural road works).

229. Whereas contractors that will be engaged in routine maintenance activities will not need specific skills regarding the application of labour-based (and light equipment supported) methodologies and construction techniques, this will be the case for the contractors that will be contracted for carrying out periodic maintenance and rehabilitation works and who have not been trained by TIM-Works or RRRMP.

[131] Including invitations for bids, instructions for bidders, bid data sheets, contract formats and general and particular conditions of contract.

[132] FIDIC is an acronym that stands for Fédération Internationale Des Ingénieurs-Conseils it is the French name for the International Federation of Consulting Engineers. The FIDIC short form of contract has been developed by the World Bank and provides a simple contractual framework with only the 'Employer' and the 'Contractor' as contract parties. This format is being used in several projects world-wide, including an ILO rural roads development cum capacity development project in Nias Islands, Indonesia (for which the ILO is using a licensed Bahasa version).

To the extent possible R4D will explore the possibility to seek RRRMP's support in providing training to such contractors but capacity constraints within RRRMP could necessitate the provision of on-the-job training to contractors, directly by R4D ILO staff and/or by DRBFC staff trained by R4D ILO staff.

230. Clauses in the contracts and provisions in bid documents regarding eligible items of work and decent work standards can be used as one of the possible entry points for the implementation of R4D's Social Safeguards Framework (including Gender Equality Strategy) and Environmental Safeguards Framework. In the TIM-Works project, with ILO as the Implementing Partner and with ILO systems being used for the approval of procurement of works, this is already practiced.

231. Possible conditions and procedures to be considered include pre-qualification conditions and mechanisms for the selection of contractors, the targets for the participation of women in the workforce, recruitment and job rotation for workers, access of people with a disability in to job opportunities, wage settings, child protection and labour, working hours, the provision of facilities for workers to and on the construction sites, conditions related to the need to adhere to environmentally sound construction practices, occupational safety and health requirements, and awareness raising about HIV/AIDS.

4 Work Plan and Staffing

4.1 Work Plan

232. A detailed work plan will be prepared in close consultation with the stakeholders during the first 3 months of the 1 year inception phase of R4D. A tentative overall work plan for the implementation of R4D is presented in Annex 14. Key activities that will be undertaken during the inception phase of R4D (i.e. the first year of implementation) are:

- Staff recruitment and mobilization;
- Office establishment within institutional set-up of DRBFC;
- Finalization of the logical framework and detailed M&E and reporting arrangements and modalities;
- Finalization of the Environmental and Social Safeguards Frameworks and operational plan;
- Preparation of a detailed Communication and Knowledge Management Strategy and operational plan;
- Preparation of a detailed work plan for the first year of implementation;
- Procurement of equipment and vehicles;
- Detailed capacity assessment (including self-assessment);
- Development of capacity development framework – including the staged capacity model;
- Start implementation of capacity development framework;
- Developing and/or modifying key systems, tools and guidelines required for the implementation of R4D;
- Selection of roads and surveys, designs and cost-estimates;
- Tendering and contract awarding;
- Implementation of road works and supervision (including quality control and assurance);
- Planning and start implementation of work related to the preparation of a comprehensive rural roads master plan (including data collection);
- Preparation of investment plans and budgets for 2013;
- Establishment of implementation of policy dialogue mechanisms;
- Establishment of the Program Steering Committee

233. The development of various operational tools that will be required for R4D's capacity building activities and its activities related to the planning and implementation of investments in rural road works constitute an important activity during the inception phase of R4D. Table 5 includes an overview of the key frameworks, plans, models and systems that will be developed during the inception phase of R4D. The table summarizes the main purpose and/or description of the different operational tools, the expected

time-frame for their development and the ILO Specialists who will have the key responsibility for the development of these tools.

4.2 Staffing Inputs and Staffing Schedule

234. R4D's staffing plan for ILO and DRBFC professional staff reflects the type, timing and duration of staff inputs that are required to achieve R4D's immediate objective. At present DRBFC has very limited staff capacities at central and district level for the planning, budgeting and management of investments in rural road works. Key functions within DRBFC that need to be strengthened with support from R4D have been identified in close consultation with DRBFC and this is reflected in the recommended plan for additional DRBFC staff.

235. An indicative staffing plan for the envisaged DRBFC counterpart staff is presented in Annex 24. This proposed staffing plan is aligned with the core functions within DRBFC (or the DRR once it is established) that will be required. The staffing plan reflects required DRBFC staffing inputs needed to implement the various activities and to deliver the outputs under R4D. The staffing plan also includes a tentative cost-estimate for the expected incremental staffing inputs but this cost-estimate will still require checking by DRBFC.

236. As explained in paragraph 174 it has been assumed that at least during the first three year of implementation R4D will require ILO specialist inputs for the key functions that have been identified. This is reflected in the staff inputs. Depending on the outcome of the mid-term evaluation by the end of the second year of implementation, supported with findings from the independent AusAID/ILO annual monitoring (by an Independent Monitoring Group – IMG), it will be decided whether further ILO specialist inputs will be required during the third and fourth year – in addition to the specialist ILO staffing inputs that have been scheduled in the R4D budget. The budget line *Provision for Cost Increase* provides the flexibility to allocate more funds for specialist ILO staff resources during the third and fourth year of implementation.

237. Approximately 17 additional staff positions will be required at central level within DRBFC[133]. At regional level it is proposed to have 2 additional staff positions filled at each of the 5 DRBFC Regional Offices[134] and for each of the districts 3 additional staff positions are proposed[135]. Technical assistance will also include support to the district administrations with regards to the planning and procurement in rural roads development and maintenance. To ensure that R4D's capacity building strategy and plan can be implemented effectively and on time, it is necessary that DRBFC staff is mobilized at the time that the R4D ILO professional staff start their assignments.

238. Office space for the additional staff positions and for the ILO staff in Dili also needs to be secured. Within the premises of the DRBFC Office there are only limited opportunities to accommodate the additional staff. One option that should be explored with DRBFC is the possibility of using the barracks/containers that were used by the ADB TA (this project will be completed before the end of 2011). Another possibility to be looked into is using the office space that is available at DRBFC' Regional Office for Dili. Alternatively, renting office space (close to the DRBFC Office) should be considered. R4D has a provision in the budget to assist DRBFC in renovating and equipping required office facilities in Dili.

[133] The number and type of professional staff positions envisaged is comparable with the size and composition of the Department of Projects and Works of DRBFC which has 17 professional staff positions.
[134] There appears to be uncertainty about the future role of the Regional Offices. MoI/DRBFC envisages that Regional Offices' roles in the future will focus on the provision of support in preparing tenders, in bid evaluation, in supervision, quality control and assurance, and in the certification of works. The ADN on the other hand expects that the DRBFC Regional Offices will be discontinued in the future as they are not considered to be operating effectively and are not part of GoTL's administrative set-up.
[135] The proposed staffing plan for DRBFC is aligned with required core functions within DRBFC (or DRR once established).

239. Considering the current uncertainty about the commitment from GoTL regarding the provision of additional counterpart staff for R4D, the design incorporates sufficient flexibility to cope with the possible scenario where substantially less additional DRBFC counterpart staff will be available than recommended by the design mission.

240. Whereas it will not be possible under this scenario to fully achieve the intended level of capacity building (i.e. between the Guided and Assisted Stage), sufficient ILO engineering staff inputs will be available in R4D to ensure that the implementation of the physical works will not be jeopardized. A possible bottleneck under this scenario however could be a shortage of supervisors at district level. This possible risk has been addressed by incorporating a budget line *Provision for Cost Increase* in the budget which will allow R4D to recruit additional supervisors, as required.

241. If less additional DRBFC counterpart staff will be available than anticipated, this could also affect the effectiveness of R4D's capacity building activities. As the ILO professional staff is assumed to have a key responsibility for the implementation of R4D during the first two stages of capacity building – i.e. the Dependent and the Guided stage – with the expectation that the achievement of the Guided stage of capacity building will not materialize before the end of the third year of implementation – sufficient ILO staff capacity has been programmed until the end of the third year for the actual planning and implementation of the physical works and for the development of various plans, systems and procedures (including a capacity development framework, a rural road master plan, a communication and knowledge management framework, database systems for road condition inventories and contract management, mapping systems for planning and monitoring, tendering and contracting procedures and formats).

242. Given the current uncertainty about the establishment of a new Department of Rural Roads (DRR) within DRBFC, at its inception R4D's capacity development and implementation support will be aligned within the existing structure, i.e. within DRBFC (unless a DRR has been established at that time).

243. As the key support and capacity building functions that are foreseen under R4D are overall well aligned with the current key functions of DRBFC – and also with the MoI's envisaged core functions under a new DRR within DRBFC – a (gradual) institutional transition of R4D's capacity building and implementation support from DRBFC to such a possible new DRR is not considered to cause adverse negative effects on the efficiency, effectiveness and sustainability of R4D's planned interventions.

244. Considering uncertainties about the pace and direction of the decentralization process, and that some activities may be best outsourced to private consultants, the design of R4D incorporates sufficient flexibility to adapt required staff inputs to the evolving environment regarding decentralization and management models in which R4D will operate. A key issue in this respect that is relevant to R4D relates to the future envisaged roles of DRBFC and the District Administrations (GoTL intends to replace in 2014 the District Administrations with Municipalities) regarding the planning, procurement and implementation of rural road works.

Table 5: R4D Key Activities Related to the Development of Operation Tools during the Inception Phase

No.	Key Activity	Description/Purpose	ILO responsible Specialist	Month											
				1	2	3	4	5	6	7	8	9	10	11	12
1	**CD Development Framework**		**CD/Institutional Specialist**												
1.1	Capacity needs assessment	Assessment of needs, including DRBFC self-assessment	CD/Institutional Specialist												
1.2	Develop staged CD model	Development of staged capacity development model	CD/Institutional Specialist												
1.3	Implementation of CD model	Implement the staged capacity development model	CD/Institutional Specialist												
2	**Environmental Safeguards Framework**	Finalize framework and establish specific operational procedures	**Senior Engineering Specialist**												
3	**Social Safeguards Framework**	Finalize framework and establish specific operational procedures	**Comm. Dev. / Gender Specialist**												
4	**Logframe and M&E Framework**		**M&E / KM Specialist**												
4.1	Finalize logical framework	Finalize the logical framework	M&E / KM Specialist												
4.2	Finalize M&E framework	Finalize M&E framework and input, activity, output, performance and effect/impact indicators in consultation with stakeholders	M&E / KM Specialist												
4.3	Reporting framework	Establish reporting arrangements, procedures and formats	M&E / KM Specialist												
5	**Knowledge Management (KM) framework**		**M& / KM Specialist**												
5.1	Establish MIS	Establish Management Information System	CTA												
5.1.1	Establish RRIS	Establish Rural Roads Information System (RRIS)	Senior Engineering Specialist												
5.1.1.1	Establish Data Base Systems (DBS)	Establish DBS for planning, budgeting, road condition inventory, contract management, physical and financial progress monitoring, quality control, monitoring and reporting	Database Specialist												
5.1.1.2	Establish GIS	Establish GIS to support planning and monitoring	GIS Specialist												
5.1.1.3	System to monitor Social Safeguards	Set up system to monitor adherence to social safeguards	Comm. Dev. / Gender Specialist												
5.1.1.4	System to monitor Environmental Safeguards	Set up system to monitor adherence to environmental safeguards	Senior Engineering Specialist												
5.1.1.5	Set-up system to monitor effects and impact of R4D	Set-up system to monitor effects/impacts of R4D on the performance of DRBFC and overall development goal.	M&E / KM Specialist												
5.1.1.6	Set-up risk management system	Set-up system to monitor identified risks	M&E / KM Specialist												
5.2	Establish Communication and KM Strategy	Establish Communication and Knowledge Management Strategy & operational plan	M&E / KM Specialist												
6	**Rural Roads Master Plan (RRMP)**		**Senior Engineering Specialist**												
6.1	Prepare implementation plan and budget	Prepare a plan and budget for the formulation of the RRMP	Senior Engineering Specialist												
6.2	Outsource data collection and supervise	Outsource the required data collection and supervise the work	Senior Engineering Specialist												
6.3	Prepare draft RRMP	Prepare RRMP together with concerned GoTL stakeholders	Senior Engineering Specialist												
6.4	Present draft RRMP	Present RRMP to MoI, MoF and national parliament	Senior Engineering Specialist												
6.5	Finalize RRMP and seek endorsement	Finalize RRMP and seek endorsement from GoTL	Senior Engineering Specialist												
7	**Procurement Framework**		**Procurement Specialist**												
7.1	Review of existing procurement framework	Review existing procurement and contracting framework	Procurement Specialist												
7.2	Procurement responsibilities, standards, procedures and contractual framework	Seek agreement with MoI and MSATM on (the development of) procurement responsibilities, standards, procedures and contractual framework for investments in rural road works and develop and/or modify procedures/framework as required	Procurement Specialist												
8	**Engineering Specifications and Standards**		**Senior Engineering Specialist**												
8.1	Review specifications and standards	Review existing specifications, standards and guidelines	Senior Engineering Specialist												
8.2	Develop or modify specifications & standards	Develop and/or modify specifications & standards, including those related to quality control and quality assurance	Senior Engineering Specialist												

245. The MSATM expects DRBFC to establish capacities at district level to support the DAs with the technical aspects of the planning, procurement and implementation of infrastructure works (including rural road works) for which DRBFC has the technical responsibility. Accordingly, R4D recommends DRBFC to establish staff capacity at district level. This staff will receive training and implementation support of R4D through its ILO Engineers based at DRBFC's Regional Offices on technical issues related to the procurement and implementation of works. Through this DRBFC capacity at district level, the DAs can be supported regarding the procurement and implementation of works.

246. Should the establishment of DRBFC staff at district level not (fully) materialize as recommended by R4D, the program will have sufficient in-house engineering capacity (through the ILO engineering staff placed at the DRBFC Regional Offices – and the R4D budget also provides the flexibility to recruit ILO supervisors at district level if necessary) to provide the necessary implementation support to the DAs and DRBFC for the procurement and implementation of rural road works at district level.

247. During the first year of implementation R4D will also place ILO District Coordinators at district level (in the five districts where works will be implemented in 2012) to support the DAs with the planning of rural road works, policy dialogue at district level and the organization and implementation of specific training courses for DA staff regarding the planning and procurement of rural road works.

248. The District Coordinators will also act as a R4D conduit for liaising and coordination at district level and for effectuating/facilitating R4D capacity building support to the DAs and DRBFC at district level in non-engineering areas (like planning, the preparation of annual plans and budgets, data collection and reporting). Depending on a review at the end of 2012 of the effectiveness and need for continuing the placement of R4D District Coordinators, the R4D budget has a provision under the budget line *Provision for Cost Increase* to continue the inputs of the District Coordinators (in each or the 13 districts; from 2013 onwards R4D will have coverage in all the 13 districts of Timor-Leste

249. Based on identified activities, the various ILO staff input requirements have been identified. Table 6 summarizes the scheduled ILO staffing inputs for R4D for the different staff positions per year. With the exception of the ILO R4D District Coordinators and a limited provision for the inputs of national consultants, it is proposed that the other specialist positions are recruited internationally as experiences with other projects and programmes in Timor-Leste indicate that the required expertise is not available locally.

250. An international ILO Chief Technical Advisor will have the overall responsibility for the delivery of R4D with regards to the AusAID funding. He/she will also be responsible to ensure adequate R4D support to GoTL (in particular to DRBFC) with regards to the planning and delivery of capital funds that will be allocated by GoTL for capital investments for rural road works. For those long-term international ILO staff positions that cover a period of less than 4 years, the budget includes a provision – as required – for intermittent short-term inputs.

251. Table 6 shows that 5 positions for District Coordinators are planned for the first year (2012). As explained earlier, a continuation/expansion (to 13 districts) of filling these positions will be determined upon a review of the effectiveness of the provision of these staff inputs after the first year of implementation of R4D. Should it be decided to continue and expand the provision of these staffing inputs, there will be sufficient budget available to finance these posts under the budget line *provision for cost increase* (see chapter 12; budget).

252. As table 6 shows, considerable ILO specialist staffing inputs have been scheduled from the first year onwards. There are several reasons for securing considerable specialist staff inputs from the beginning of R4D onwards. Experiences in other programs in Timor-Leste (like TIM-Works and BESIK) have shown the importance of establishing the necessary key frameworks, systems and procedures for planning and implementation early on in the program (the work envisaged in establishing these

frameworks, systems and procedures is summarized in table 5). If this is not done, it will be very difficult later on to correct this. Setting effective frameworks, systems and procedures early on will also contribute to the development of a 'performance culture' within DRBFC. As DRBFC lacks the technical expertise and capacities to develop such frameworks, systems and procedures, substantial ILO specialist inputs will be required.

Table 6: Scheduled R4D Staffing Inputs per Year

AusAID CONTRIBUTION	Year 1	Year 2	Year 3	Year 4	Total
Staffing Inputs	WM	WM	WM	WM	WM
Chief Technical Advisor	12	12	12	12	48
Institutional/Capacity Development Specialist	12	12	12	0	36
Senior Infra/Planning Specialist	12	12	12	0	36
Database Specialist	6	6	0	0	12
GIS Specialist	6	6	0	0	12
M&E / Knowledge Management Specialist	12	12	12	0	36
Contract Management / Procurement Specialist	9	3	0	0	12
Community Development / Gender Specialist	9	12	12	0	33
Regional Engineers (5 positions)	42	60	60	60	222
Consultants	3	2	2	3	10
International Experts and Consultants	**123**	**137**	**122**	**75**	**457**
Finance/Admin Officer	12	12	12	12	48
Finance/Admin Assistant (2)	24	24	24	24	96
Drivers (13)	120	156	156	156	588
Support Staff	**156**	**192**	**192**	**192**	**732**
R4D District Coordinators	60	0	0	0	60
Consultants	4	4	4	4	16
National Staff and Consultants	**64**	**4**	**4**	**4**	**76**
SUB-TOTAL PERSONNEL	**343**	**333**	**318**	**271**	**1,265**

253. Another reasons for the early recruitment of substantial ILO specialist staffing inputs is the expressed desire of GoTL and AusAID to start with the implementation of rural road works during the first year (i.e. 2012). It will require substantial specialist ILO engineering inputs to achieve this.

254. One of the lessons learned from TIM-Works with regards to increasing staff strengths in the counterpart government agency, is to allow the counterpart agency to build its own teams by helping them to recruit the best people and providing donor resources for engaging staff at the beginning.

255. At TIM-Works for example there were 9 national counterpart staff in SEFOPE at the start of the project and at present there are 152 national counterpart staff. Over time – after TIM-Works had demonstrated the effectiveness, appropriateness and relevance of the project to SEFOPE – SEFOPE made an increased contribution to the staff resources necessary for the implementation of TIM-Works.

256. Staff recruitment for key ILO R4D staff positions will be done in consultation with GoTL. As a minimum level of GoTL engagement, it is recommended that GoTL approves the TORs for the key ILO staff positions and endorses proposed candidates for those key positions. At this stage it is not possible to predict whether the GoTL key counterpart staff positions will all be filled in accordance with the recommended counterpart staffing plan (Annex 24). If this will happen, there also may be scope for GoTL involvement regarding the assessment of staffing needs, the development of TORs and the selection of staff (for both ILO staff and counterpart staff).

5 Institutional Framework and Management Arrangements

5.1 Institutional Arrangements and Organizational Set-up

257. Despite the uncertainty around decentralization, it is logical that the central counterpart institution (i.e. GoTL Executing Agency) for R4D is DRBFC within MoI, as DRBFC is GoTL's mandated Directorate for the development, rehabilitation and maintenance of the entire public roads network in Timor-Leste, including rural roads.

258. Close cooperation will be established with key partners and stakeholders (including other relevant donors, projects and programs working in the roads sector) to ensure that synergies can be optimized, that work plans are coordinated and reflect GoTL priorities, and that approaches, modalities and standards are streamlined. Considering the importance of the MSATM (and its district administrations) and the ADN in the context of planning, contracting, implementing, monitoring and evaluating investments in the rural roads sub-sector, a close liaison will be established with these two agencies.

259. For the approval of state budgets and the provision of data, MoF (and its Directorate of Statistics) plays a central role and R4D will also establish close coordination with MoF. Equally important, R4D will seek to collaborate with other relevant rural road projects (including the EC-funded RRRMP to ensure for example complementarities between RRMP and R4D in building capacities in respectively the private construction sector and the public sector) and other projects (like BESIK).

260. Other agencies and institutions with which coordination and liaison will be established include:

- The contractors association (AECCOP; regarding the classification and registration of contractors, and the development of contract formats);
- The association of workers' organizations (regarding compliance to decent work standards, including health and occupational safety standards, wages, working conditions on-site);
- Key donors (like WB, ADB, EC);
- Relevant capacity building projects (like the capacity building project in DRBFC that is supported by JICA;
- The Directorate of Environment regarding environmental issues;
- The Directorate for Rural Development;
- Women's and Disabled Persons' Organizations;
- Initiatives/projects related to climate change issues;
- The AusAID-funded YEPP; coordination with regards to setting-up linkages related to the provision of sustainable employment opportunities for youth in the domestic construction sector, through the employment mediation services of the Employment and Career Guidance Centres network established in partnership with SEFOPE.

261. To be effective, R4D will work within the structure of the existing institutional set-up of MoI and DRBFC and it will have to work with all the processes and institutions involved in rural road management to be effective. During the design mission, MoI confirmed that an integration of R4D within the institutional structure of the ministry is the preferred set-up to ensure that sustainable capacity building can take place. The R4D design opts for using a model whereby experienced ILO specialists will work alongside regular counterpart ministry staff, using – wherever possible – regular ministry and government systems and procedures. As required, these systems and procedures will be strengthened.

262. R4D will operate in a dynamic environment and this is reflected in the flexibility built into the design of R4D to ensure that necessary adjustments can be made throughout the duration of the program. Given the current uncertainty about the establishment of a new Department of Rural Roads (DRR) within DRBFC, at its inception R4D's capacity development and implementation support will be aligned within the existing structure, i.e. within DRBFC (unless such a DRR has been established at that time).

263. Whereas MoI has repeatedly indicated its interest in establishing a DRR under DRBFC, the approval for the establishment of this DRR is subject to the approval of the Council of Ministers. As internal GoTL discussions regarding specific responsibilities related to capital investments in rural infrastructure works are still evolving, it is difficult to predict at this stage when and if such a DRR will be effectively in place.

264. As the key support and capacity building functions that are foreseen under R4D are overall well aligned with the current key functions of DRBFC – and also with the MoI's envisaged core functions of a new DRR – a (gradual) institutional transition of R4D's capacity building and implementation support from DRBFC to such a possible new DRR is not likely to cause adverse negative effects on the efficiency, effectiveness and sustainability of R4D's planned interventions.

265. In terms of the required flexibility with regards to uncertainties related to the pace and direction of the decentralization process, particular design aspect have been incorporated in R4D that will ensure a continued efficiency and effectiveness of the delivery of R4D's outputs. These relate to the envisaged procurement arrangements[136], the inclusion of capacity building/implementation support and coordination and liaison at district level (including the district administrations), and the adaptation of a flexible and needs-based capacity development plan that will be reviewed – and as necessary adjusted – on a yearly basis.

266. Figure 2 presents a schematic overview of the envisaged organizational set-up of R4D within the framework of DRBFC's current institutional structure. As explained in chapter 2 and 3 it is proposed to establish a Knowledge Management Unit (KMU) within DRBFC – or at least the functionalities within DRBFC required for knowledge management – to ensure that well-informed decision making takes place, that activities are well management and monitored, and that up-to-date and complete information and data are available to enable the preparation of high standard budget proposals. The KMU – or the KM functionalities – will also be able to provide information required to engage in a dialogue with policy- and decision makers about the importance of up-scaling and accelerating investments in the rural roads network.

267. Apart from the placement of one staff of the Directorate of Housing and Urban Planning at district level in the Office of the District Administrator, Public Works does not have any presence at district level yet. With the on-going decentralization process and considering the envisaged work load related to the planning and implementation of rural road investments at district level under R4D and its envisaged parallel GoTL funding, establishing a permanent presence of the DRBFC for the rural road work activities is recommended. The diagram in figure 2 includes this proposed set-up.

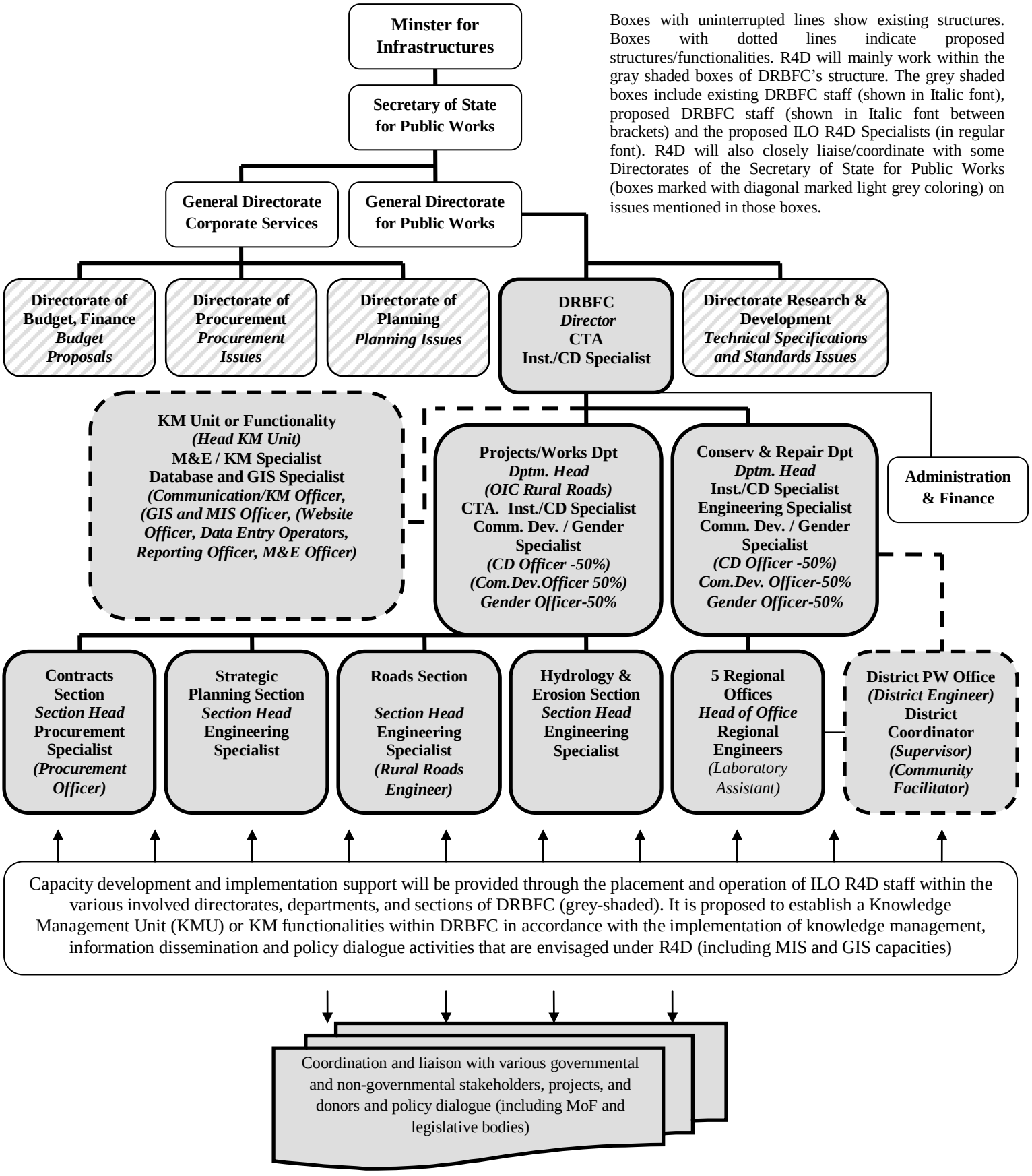
5.2 Management and Implementation Arrangements

268. As Implementing Agency the ILO has the overall responsibility for the delivery of R4D. In the implementation, a number of implementing partners are involved in different capacities. These implementing partners are at the same time recipients/beneficiaries of R4D as they will benefit from the program's s capacity building and rural road works implementation activities.

269. As the GoTL's executing agency, the MoI, through DRBFC, is the key government implementing partner for R4D. Other implementing partners are the district administrations, small local contractors and the communities who will be involved in the construction, rehabilitation and maintenance activities.

[136] I.e. initially following ILO procurement procedures and gradually aiming at harmonizing and influencing procurement procedures, in line with GoTL's decrees and regulations and evolving decentralized procurement mechanisms

Figure 2: Envisaged set-up of R4D within Institutional Framework of DRBFC



Boxes with uninterrupted lines show existing structures. Boxes with dotted lines indicate proposed structures/functionalities. R4D will mainly work within the gray shaded boxes of DRBFC's structure. The grey shaded boxes include existing DRBFC staff (shown in Italic font), proposed DRBFC staff (shown in Italic font between brackets) and the proposed ILO R4D Specialists (in regular font). R4D will also closely liaise/coordinate with some Directorates of the Secretary of State for Public Works (boxes marked with diagonal marked light grey coloring) on issues mentioned in those boxes.

270. The roles and responsibilities of the involved government stakeholders will be in accordance with relevant government mandates and decrees. At the start of the inception phase of R4D, a participatory workshop will be organized with the Government implementing partners and stakeholders to finalize specific responsibilities and roles[137], to complete the logical framework of R4D and to prepare the first year's Annual Work Plan (AWP). It is proposed to review the division of the roles between the ILO R4D program staff and involved DRBFC staff on an annual basis, with the aim of gradually increasing the involvement of DRBFC to foster the institutionalization of capacity building

271. R4D will have a leading role in coordinating activities with other donors and projects. For this purpose a MoI-chaired Program Steering Committee (PSC) will be established. Apart from its specific role directly related to R4D's direction, progress and performance[138], it will also have a broader function of leading coordination efforts and policy dialogue for the rural roads sub-sector in Timor-Leste, with the aim of accelerating the development of rural road access and improving the overall effectiveness and sustainability of the interventions of the various stakeholders in the rural roads sub-sector[139].

272. Apart from MoI it is proposed that MSATM, ADN, AusAID and ILO participate as permanent members in the PSC. As required, the PSC will also invite other key stakeholders – including donors – to attend the PSC meetings and participate in discussions on strategic and operational issues related to the planning, budgeting and management of investments in rural road infrastructure in Timor-Leste.

273. Promoting the synchronization, harmonization and standardization of systems, procedures and processes across the rural roads sub-sector, and ensuring an effective coordination with donors regarding the implementation of complementary investments plans in the rural roads sector[140], will also be important aspects of the work of the PSC. The PSC will also provide a key entry point for policy engagement, for example on budget allocations and relevant policy reform.

274. Apart from the coordination mechanism provided by the PSC, it is important that effective coordination also takes place at operation level. Within MoI and DRBFC this will be ensured by setting up a system of regular internal meetings with other relevant projects that operate within MoI and DRBFC (like capacity building projects and other rural roads projects). As required, other projects operating in the rural roads sector that are being implemented outside of DRBFC will also be invited to participate in these meetings.

275. It is expected that MoI/DRBFC will gradually assume the responsibility for financing the R4D counterpart staff. It is proposed that R4D will (co-) sponsor the MoI/DRBFC required counterpart staff (see Annex 25) during the first year of implementation for central staff and up to the end of the second year of implementation for incremental regional and district staff. After that, it is envisaged that MoI/DRBFC will assume the responsibility for financing all their staff required for the implementation of R4D.

[137] In this context particular attention should be given to the division of responsibilities between MoI/DRBFC, MSATM and ADN regarding: i) the prioritization/selection of roads; ii) the preparation of annual investments plans and budgets; iii) surveying, designing and cost-estimation; iv) programming of works; v) tendering and contract awarding; vi) implementation, supervision and quality control & assurance; vi) monitoring and evaluation, and; vii) information exchange

[138] Responsibilities of the PSC directly related to the implementation of R4D include monitoring and overseeing at national level the overall performance and progress of R4D against its design, objectives and Annual Action Plans (AAPs), providing overall guidance and direction regarding the implementation of R4D – also vis-à-vis the direction and pace of the decentralization – and coordination with R4D's key stakeholders.

[139] This will also include activities that aim at synchronizing and complementing activities, harmonizing approaches, and standardizing procedures, specifications and methodologies.

[140] This includes complementarities in terms of road network connectivity considerations, capacity building activities, the development of guidelines, procedures and system, etc.

276. In line with the envisaged staged capacity development model that will be used in R4D, the intention is to gradually hand-over responsibilities to the counterpart staff. This will be done on the basis of the achievement of outputs which will be reviewed annually using output indicators. These output indicators will be jointly agreed upon during the inception phase of R4D[141].

5.3 ILO Governance

277. In accordance with the Agency Agreement between AusAID and the ILO, the ILO will administer and manage the Grant for R4D. The administration and management of the Grant for R4D by the ILO will be done in accordance with relevant ILO guidelines (fiduciary frameworks, governance arrangements, policies, guidelines and procedures [142]), with due regard to appropriate standards of transparency, accountability and good governance, and the need to combat corruption and illegal practices in the management of grant funds. The *ILO Technical Cooperation Manual* is the relevant governing ILO document for the administration and management of grants. The ILO Technical Cooperation project cycle distinguishes the following phases: a) design; b) appraisal; c) approval; d) implementation and monitoring; e) evaluation. A summary of the ILO procedures for appraisal, approval, implementation, and monitoring & evaluation is presented in Annex 15.

6 Procurement and Financial Management

278. The design team has looked into the possibility of using the GoTL Public Financial Management (PFM) systems and setting aside some of R4D's budget later in the program for possible direct budget support. Based on the design mission's assessment, and supported by the findings of recent assessment by IMF and AusAID of the performance of the GoTL PFM[143], it is not recommended to use the GoTL PFM system from the beginning of R4D.

279. A possible exception that could be considered is channelling funds by ILO through the MoI payroll system for co-sponsoring counterpart staff. This will require further discussions between MoI, AusAID and ILO. In line with GoTL's request to donors to be better informed about donor-funded projects, the possibility of registering the grant with the MoF should be considered and it is also recommended to keep the GoTL well informed about R4D's budget performance and progress, in line with GoTL reporting requirements from technical line ministries and District Administrations regarding their budget performance.

280. Whereas the current weaknesses in the GoTL PFM system do not justify at this stage the use of this system for the AusAID funds, R4D will monitor the performance of the GoTL PFM system to inform the eventual design of a second phase of R4D. As R4D will work very closely with – and support – DRBFC and the DAs in the budgeting, planning and procurement of GoTL capital investments in rural road works – using the GoTL PFM system – R4D will be in a good position to monitor and review the performance of the GoTL PFM system. In addition, the mid-term evaluation of R4D and the annual monitoring by the AusAID/ILO Independent Monitoring Group will be used as instruments to decide whether channelling AusAID funds during an eventual second phase of R4D would be warranted.

281. ILO will be using its own internal approval and administration procedures for financial management and the procurement of services, equipment and works under R4D. The overall governing

[141] Possible output indicators that could be considered include: i) the timely availability of Annual Work Plans; ii) demonstrated ability to produce good designs and cost-estimates; iii) demonstrated capacity to handle contract management; iv) demonstrated improvement in the application of quality control measures in planning, design, cost-estimation, contracting and implementation; v) demonstrated monitoring and reporting capabilities

[142] Including procurement procedures and auditing

[143] Annex 16 provides a summary of the recently conducted assessments done by the IMF and by AusAID (the latter for the WATSAN sector) of the GoTL PFM system.

framework for financial management and procurement is the AusAID-ILO Grant Agreement which outlines the requirements regarding financial management and procurement.

282. The ILO Financial Rules and Regulations govern the financial and procurement management procedures that will be followed by R4D. These procedures ensure that all project expenditures are properly authorized, fall within the parameters and budgets of the approved project document, be funded from the specified sources of funding, and are subject to detailed certification and approval procedures and ex post facto reporting.

283. For the procurement of works the ILO will apply in principle the same internal procedures as those ones that are being applied under the current TIM-Works Project for short-listing contractors bidding, evaluating bids, awarding contracts, and for supervising works. An overview of the ILO governing procedures for procurement is presented in Annex 7.

284. Based on the procurement requirements of R4D, and in line with the governing ILO procedures and rules for procurement, an indicative procurement plan has been prepared for R4D. This plan is presented in Annex 17. As required, this plan may be modified during the inception period.

285. On an annual basis the procurement plan will be reviewed and, as required, adjusted. Based on the procurement plan and the indicative work plan and staffing schedule, an indicative annual disbursement plan has been prepared for R4D. This plan is presented in Annex 18 and will also be reviewed during the inception phase, in consultation with the stakeholders. Annual adjustments may be required, depending on R4D's progress.

286. Appropriate financial and administrative management systems and procedures will be established by the ILO during the project's start-up. This includes administrative procedures for personnel management, financial control, procurement, transport management, store control, communication and coordination.

287. The ILO will apply the standard financial rules and regulations of the ILO, the ILO's program cycle management methodology and all other arrangements used by the ILO worldwide for technical cooperation program implementation. A summary of the governing ILO financial management procedures is presented in Annex 20.

7 Safeguards and Anti-Corruption Mechanisms

7.1 Social Safeguards

288. During the inception phase of R4D a Social Safeguards Framework (SSF) will be prepared in close consultation with the stakeholders, which will serve as the program's umbrella document, setting out R4D's strategy regarding the implementation of social safeguards. A draft outline of the proposed SSF is shown in Annex 20. The SSF will comply with the relevant GoTL regulations and laws. Social safeguards policies and procedures that will be applicable under R4D will be fully in line with, and governed by, ILO policies and procedures and will be aligned with AusAID's social guidelines as well. Gender equality issues and issues related to child protection and labour, decent work and rural road and transport accessibility for disabled are part of the SSF.

289. To ensure full implementation of the SSF measures, R4D will include social sensitization and training in its training and capacity building activities. The ILO Community Development / Gender Specialist will have the overall responsibility to ensure adherence to the SSF. At sub-project level the DRBFC facilitators will be primarily responsible for the implementation of social safeguards activities and will be supported in this task by the ILO R4D District Coordinators, the ILO Regional Engineers and other district and regional DRBFC staff.

290. As part of the development of the SSF, performance indicators will be formulated that will be monitored regularly through R4D's M&E activities. Annual reviews of R4D's performance in relation to the implementation of – and adherence to – the Social Safeguards Framework will be conducted one time per year by the AusAID/ILO Independent Monitoring Group (IMG). The findings of these reviews will be reported to the R4D PSC.

7.2 Environmental Safeguards

291. The GoTL Strategic Development Plan (SDP) 2011-2030 includes the intention of better enforcement of current environmental laws and regulations and the preparation of comprehensive environmental protection and conservation legislation necessary to meet constitutional and international obligations. The SDP also mentions the importance of integrating environment and natural resource management across government and to improve institutional and staff capacity in environmental management

292. During the inception phase of R4D an Environmental Safeguards Framework (ESF) will be finalized. The ESF which will serve as the program's umbrella environmental document, setting out R4D's environmental screening process and environmental measures and disaster/climate change risks required for the physical works implemented under R4D. A draft outline of the proposed ESF is shown in Annex 21. This ESF also includes safeguard guidelines related to the possible effects of R4D on the environment.

293. It will be the responsibility of R4D to support the GoTL in developing detailed environmental management procedures for this framework. An ILO R4D Environmental Specialist (one month of a consultancy input is foreseen for this purpose) will be responsible to finalize the Environmental Safeguards Framework (ESF) during the inception period.

294. Activities concerning environmental management will be carried out in close co-operation with relevant government agencies to ensure compliance with relevant GoTL laws, decrees, standards and procedures. GoTL's environmental review procedures, experiences gained with environmental safeguards procedures in on-going and past (rural) roads projects in Timor and ILO's and AusAID's[144] policies and guidelines on environmental management will inform the framework for R4D's approach to environmental screening and the mitigation of adverse effects and impacts. Based on the outcome of the screening process, Environmental Management Plans (EMPs) will be prepared for individual sub-projects.

295. To ensure full implementation of the ESF measures, R4D will include environmental sensitization and training in its training and capacity building activities. The implementation of the EMPs and adherence to environmental best practice standards will be the responsibility of contractors, as set out in bid and contract documents. Field-based environmental monitoring – to ensure contractor compliance – will be the primary responsibility of the DRBFC site-engineer assigned for each sub-project. Additional support and spot-checking will be carried out by the R4D ILO Regional Engineers, in coordination with local environmental authorities and DRBFC staff of the Regional DRBFC Offices.

296. The flow of reporting and advice that will be used regarding the preparation and implementation of the sub-project EMPs will be as follows:

[144] AusAID is bound as a Commonwealth (of Australia) agency to comply with the *Environment Protection and Biodiversity Conservation Act* (1999) (EPBC Act). Activities in foreign countries (and in Australia) which have significant negative environmental impacts require referral under the EPBC Act to the Department of Sustainability Environment, Water, Population and Communities (SEWPAC) for advice on appropriate environmental management.

- DRBFC site-engineers and supervisors – with support from ILO R4D Regional Engineers – will work closely with communities to provide guidance and advice on environmental risks of sub-projects and appropriate mitigation measures;
- R4D will integrate environmental considerations of rural road design and construction into the contracting and supervision responsibilities of the contractors;
- The ILO R4D Regional Engineers will provide technical advice and guidelines, as well as day-to-day guidance to DRBFC site-engineers and supervisors;
- The R4D Senior Engineering Specialist will provide an annual report on the key performance indicators to the CTA of R4D and the Director of DRBFC, and the latter will convey it to the Program Steering Committee and DoE.
- A review of R4D's performance in relation to the implementation of – and adherence to – the Environmental Safeguards Framework will be conducted one time per year by the AusAID/ILO Independent Monitoring Group (IMG). The findings of these reviews will be reported to the R4D PSC. During the inception phase specific indicators will be formulated to be able to capture R4D's performance in relation to the implementation of the ESF.

8.3 Anti-Corruption Mechanisms

297. An anti-corruption mechanism framework will be formulated during the inception phase of the R4D, in line with the ILO Office Directive on Anti-Fraud Policy and based on ILO mechanisms and measures in place to prevent corruption in the first place as well as on dealing with corruption, if and when it occurs. A draft outline for this anti-corruption plan is presented in Annex 22. Based on this framework, program specific anti-corruption mechanisms and procedures will be established and implemented to ensure transparency, accountability, and an efficient and effective use of available resources.

298. At operational level R4D will establish an anti-corruption code of conduct. Particular attention will be given under R4D to ensure transparency and accountability throughout the entire program, in particular for contracting of the works. Legally sound and proven standard contract documentation, systematic work quantity assessment, approved bidding and contract award procedures, factual and transparent payment procedures and effective quality control are the particular measures that will be pursued. These will follow established ILO regulations and rules for procurement (see also Annex 7).

8 Monitoring and Evaluation

8.1 Introduction

299. The M&E arrangements for R4D align with current 'actor-centric' approaches. Such approaches recognise that design logic is easier for people to understand when defined in terms of the human relationships that underpin social change processes [145] The chain of human actors that underpin ILO program designs (as articulated in the ILO Technical Cooperation Manual) comprise: i) the delivery team; ii) the direct recipients, and; iii) the ultimate beneficiaries. This chapter describes the arrangements to manage the performance information outlined in chapter 2 (Program Logic and Logical Framework). An M&E Framework that elaborates the key elements discussed below is provided in Annex 12.

300. The M&E framework will be intrinsically linked to the formulated plans of activities (that include targets, specifications, budgets, and implementation timelines). The indicators formulated in the logical framework of the R4D provide the framework for the detailed design of the M&E system in terms of information requirements. During the inception phase this logical framework will be finalized in consultation with the stakeholders.

[145] This thinking is consistent with AusAID's alignment with a 'theory of change' approach which explicitly articulates the relationships through which social changes are expected to emerge.

301. In accordance with AusAID's reporting requirements and ILO's reporting procedures, R4D will produce various reports to inform about the progress and achievements of R4D. These will include an inception report, annual work plans, six-monthly progress reports and un-audited financial statements, base-line survey reports, technical reports (including reports on assessments of adherence to Environmental and Social Management Frameworks), annual certified financial account statements, evaluation reports and a program closure report.

302. The underlying rationale and philosophy of the M&E approach proposed for R4D is presented in Annex 13.

8.2 Knowledge Management

303. The development of a 'performance culture' within GoTL is an expressed priority of the Prime Minister. R4D will assist the MoI with the establishment of knowledge management functions for rural roads within DRBFC, if possible through the establishment of a dedicated Knowledge Management Unit (KMU). This unit or the established KM functionality will be responsible for maintaining the Rural Roads Information System (RRIS, outlined in chapter 2), and tracking the DRBFC's performance against Annual Action Plans and the Rural Roads Master Plan.

304. The KM unit or the established KM functionality will also be responsible for providing data to meet GoTL, donor and other R4D stakeholder needs, including communicating the state of the rural roads sub-sector to the public. Whereas the establishment of KM functionality in itself will not realise the objective of establishing a 'performance culture', it is aligned with this objective and a necessary – but not sufficient – condition to achieve this. The KM unit or the KM functionality will be central to the success of R4D—being both a product of capacity development investments, and a driver of continuous improvements.

305. Other issues related to the establishment of a 'performance culture' – like human resource management – will be largely or wholly beyond the scope of R4D. Through a dialogue with other donors working in the roads sector, with MoI more generally (e.g. the successor of BESIK) and with initiatives focussing on public sector and public financial management, R4D will contribute in identifying issues that are beyond the scope of the Program and in promoting their implementation.

306. As discussed with DRBFC during the design mission, DRBFC staffing inputs that would be required to establish the KM unit or KM functionalities include an M&E Officer, a KM/Communication Officer, an MIS Officer, a GIS Officer, a Reporting Officer and two Data Entry Operators. In addition, the mission also proposes the position of a DRBFC Website Officer to provide support in the establishment of a DRBFC website which will be useful as part of the R4D knowledge management activities. The KM unit or the KM functionalities will be required to collaborate with the Directorate of Statistics and other sources of performance information.

307. An ILO M&E Specialist of international standing will develop and refine the performance management arrangements/tools and support particular M&E tasks of DRBFC at peak periods. The ILO M&E Specialist, together with the ILO KM/Communication Specialist and the ILO Database and GIS Specialists will be to 'help desk' and mentor the development of a performance culture within DRBFC as building the performance capacity of DRBFC to delivery rural roads is the focus of R4D – and this in turn demands the development of capacities, tools and a 'culture' that is concerned with performance. The MIS specialist and the GIS specialist will be required to support the development of the RRIS, and ensure that the MIS/GIS capability is adequate/simple and useable.

8.3 Monitoring & Evaluation Methods

308. As discussed in Chapter 2, the M&E arrangements for R4D are pragmatically focussed on answering a series of 'performance questions' aligned with the causal hierarchy of the program design:

- **Impact**:
  - Has rural road access improved?
  - Are rural women and men deriving social and economic benefits from improved road trafficability?
- **Outcomes**[146]:
  - Is GoTL more effectively planning, budgeting and managing rural road works?
- **Outputs**:
  - Is R4D delivering key program outputs on time, within budget and of sufficient quality, and if not why not?

309. The methods proposed to accrue data that answers these performance questions are described in sections 8.3.1 to 8.3.3 below. A mid-term and final evaluation of R4D will be initiated by the ILO Country Office in coordination with GoTL, AusAID and the ILO Evaluation unit at the regional and HQ levels[147].

310. The GoTL, the PSC and AusAID will also the opportunity to be involved in the preparation of the TOR for the evaluation missions and during the evaluations. During the evaluations an assessment will be made of the relevance and strategic fit, the validity of the design, the progress, its effectiveness and efficiency of resource use, the effectiveness of the management arrangements, and impact orientation and sustainability. The purpose of the evaluation is to provide accountability to GoTL, donors and to the ILO Governing Body.

8.3.1 Impact Evaluation Method

311. Following staff mobilisation, the KM unit (or – in the absence of such a KM unit – the DRBFC staff proposed to develop KM functionalities within DRBFC), led by the M&E Specialist, will assemble a baseline dataset. The baseline will draw on survey data[148] from the Directorate of Statistics within the Ministry of Finance, data from within the Ministry of Infrastructure, and primary data collected with R4D M&E methods. While the official GoTL statistics will be a cost-efficient way of quantitatively assessing impact over the life of the program, the R4D methods will enable more regular (annual) insights into changes fostered by the program.

312. The purpose of assembling this impact dataset will be to establish the pre-intervention status of rural road accessibility, which will include the status of access to local markets, banks, schools, health centres, job opportunities and other social and economic facilities and services (baseline), and then to track annual changes influenced by the program to inform debate about impact.

313. An Annual Rural Roads Accessibility Assessment (ARRAA) will collect a raft of road quality metrics and household socioeconomic data from a sample of road works contract packages supported by R4D. This will necessitate the development of an appropriate two-stage sample frame to: i) select the road packages for study; ii) to select households within vicinity of the road works. It is anticipated that the ARRAA will involve paired data (i.e. a longitudinal study over the life of the program that tracks changes experienced by the same households/localities). Whereas the ARRAA is a separate M&E process, the information generated by it will be part of the information database of R4D's overall Management Information System.

[146] The outcome refers to the achievement of the immediate objective of R4D

[147] The ILO evaluation manager, who has no prior links to the project, ensures that evaluations are carried out in accordance with ILO policies and take place in a timely manner. In the case of independent evaluations he/she drafts the TOR, selects the evaluation consultant and circulates the draft and final evaluation report

[148] In addition to the Census (last in 2010), the Directorate of Statistics periodically conducts surveys that capture data relevant to R4D; for example surveys planned or under development include the Living Standards Survey (2012 or 2013), Business Activity Survey, Household Income Survey, Social Protection Survey, and Agricultural Sector Survey.

314. It is a truism that the resources and effort invested in M&E are squandered if findings are not communicated effectively and utilised. It is also a truism that 'information is power' when it is effectively communicated. Recognising these truisms, M&E information for R4D will be used for more than just formal reporting—to create influence and support for the broader reform agenda. A communication specialist within the KM unit will work to effectively and creatively communicate key M&E findings so that they foster the desired results. A communication strategy will be developed and will include:

- Mapping of key stakeholders and their respective information needs.
- Identification of available communication channels to influence the various stakeholders.
- Development of creative and accessible communication mediums.
- Scheduling and facilitation of key communication events

315. A key element of the communication strategy will be an annual forum convened by R4D to present progress and constraints in the rural roads sub-sector via a 'State of the Sub-sector Report'. The event will be open to the media, GoTL, civil society and private sector.

8.3.2 Outcome Evaluation Method

316. On an annual basis the KM unit or the established KM functionalities within DRBFC will assemble a range of internal data concerning the capacity and performance of DRBFC's activities in the rural roads sub-sector. This Annual review of Building Capacity within DRBFC (ABCD Review) will be used as the basis for critical reflection about the efficacy of capacity development methods, and to inform forward planning as part of the established Annual Action Planning process. The ABCD Reviews will also be used answer the question "if R4D is not delivering key program outputs on time, within budget and of sufficient quality, why not?"

317. The ABCD Review will comprise both quantitative metrics about road package delivery and internal department core functions (derived principally from the RRIS outlined in paragraph 4.3), but will also include more nuanced/qualitative study of the emerging capacity, drawing on the capacity development framework described in chapter 3.

318. A second dimension to outcome evaluation will be a joint GoTL/AusAID/ILO Independent Mid-term and Final Evaluation of R4D in accordance with ILO standard practice. AusAID, the R4D PSC and the GoTL will have the opportunity to contribute to the ILO-led development of the TOR for the evaluation mission and to participate in the evaluations. The independent evaluations will focus on the efficacy of the approaches employed to strengthen the capacity of DRBFC, evidenced principally by the quantity and quality of rural road services delivered. The outcome of the mid-term evaluation, supported with findings from annual AusAID/ILO monitoring missions (by an Independent Monitoring Group) of the performance and relevance of R4D, will inform whether to proceed with the design of a second phase of R4D. Key considerations in this respect will be GoTL commitment to reforms in the sub-sector, progress in the strengthening of DRBFC capacity, and improvements in the quality of rural road services.

8.3.3 Output Monitoring Method

319. R4D outputs monitoring will focus primarily on the 'downstream' changes in DRBFC's performance that plausibly derive from capacity building interventions supported by the program. This will involve the capture of prescribed metrics from rural road works by site supervisors who will submit End-of-Project reports for entry and analysis in the RRIS by the KM unit[149].

[149] There may be potential to pilot new developments in mobile phone reporting such as Frontline SMS or Point-of-Interest. Plan International in Kenya has shown early success in using such technology to capture water and sanitation project data in the field and streamline data aggregation and analysis via a central online database.

320. Aggregated performance data will be disseminated internally as a 'Performance Update Note' for DRBFC staff as part of a broader strategy of developing a 'performance culture'. Cumulative data will be assimilated at the end of each year to inform internal reflections about DRBFC's performance, and the preparation of the next Annual Action Plan.

321. A secondary element to the monitoring will address the relationship between ILO and AusAID, and will involve ILO reporting to AusAID any variance between planned and actual progress against the prepared Annual Work Plans (AWPs).

8.3.4 Outstanding Issues

322. To fully operationalize the performance management arrangements outlined above, further work is required during the inception period, including:

- **Setting clear year-4 targets**: Whereas year-4 targets for the rural road works component of R4D have been set, specific targets and indicators related to the expected year-4 performance of DRBFC still need to be finalized during the inception phase of R4D. Once this has been done, the annual review (the ABCD Review) could draw on the concept of 'Progress Markers' within Outcome Mapping developed by the Canadian International Development Research Centre's (IDRC)[150]. Progress Markers have shown promise as a way to track open-ended developments—such as institutional strengthening—along an agreed trajectory[151]. A fundamental element of this work will be the establishment of processes of internal reflection and debate about departmental performance.
- **Secondary data:** the design team obtained verbal support from the Directorate of Statistics to obtain subsets of directorate survey data to meet R4D information needs. The precise data required will need to be defined and formally requested in order to compile the baseline report.
- **Technical standards:** considerable work has been done by the ADB to support the establishment of GoTL technical standards for rural road works. This work draws on the 'Red Book' used during the time of the Indonesian administration of Timor-Leste and other broader technical standards including from Australia. Assuring the technical quality of road works presupposes that there is consensus on what the technical standards are. Hence, an important early step will be to seek GoTL endorsement of the standards developed with the ADB support.
- **Capacity development framework:** capacity development is a notoriously amorphous and conceptually fragmented field, with no absolute measures or agreement on mechanisms. The development of a R4D-specific framework that appreciates unique aspects of the MoI context will be an important early step. The capacity needs assessment followed by the development of the capacity development framework will form an integral part of the M&E arrangements for R4D. However, the integration of this framework will require dedicated focus and should be an early output of the M&E Specialist and KM unit.
- **ARRAA method:** an early task of the M&E Specialist and KM unit will be to define the sample frame for measuring changes in rural road access and trafficability. This will include:
    - *Locality selection* (Which road works packages? As the main focus of R4D is on rehabilitation and maintenance works – with only very limited new road construction undertaken – this should be reflected in the selection of the road works packages for sampling purposes) .
    - *Household selection* (which households within vicinity of the road works?).
    - *Measures* (refining the measures/indicators to be collected to ensure that the overall performance questions can be meaningfully answered).

[150] Earl, S., Carden, F. & Smutylo, T. (2002). *Outcome Mapping: building learning and reflection into development programs*. Ottawa, IDRC. See http://www.idrc.ca/en/ev-26586-201-1-DO_TOPIC.html.

[151] Participants periodically assess current progress against 'progress markers' that are intuitively defined as 'expect to see', 'like to see' and 'love to see'.

- *Types of information* (data collection at the household level will consist mainly of focussed discussions with sampled households (i.e. qualitative method) each year. This will compliment the quantitative data assimilated from the Directorate of Statistics).
- *Roughometer* (defining the precise methodology for measuring the roughness of the sampled road; e.g. time since works completion, time of year/season, distance sampled, speed travelled etc.).
- *Traffic* (defining the methodology for traffic counting; e.g. manual? Unidirectional? All classes of vehicle or disaggregated by type?).

- **RRIS:** the KM unit will need significant inputs from an information system architect/developer to establish a simple and useable Rural Road Information System. This will require initial inputs to scope the system, and define the precise information requirements. Subsequent inputs will be necessary to pilot and refine the system, and train and support staff.

9 Inputs and Budget

323. Staffing inputs that are required for the delivery of R4D have been outlined in chapter 4. An indication of the required funds for capital investments is given in table 2 in chapter 3. For the delivery of the envisaged training and capacity building component various inputs will be required (including staffing inputs and resources for training, study tours and seminars). Inputs will also be required for travel, ILO backstopping missions, audits and evaluations, the establishment and operation of R4D, equipment and vehicles, sundries and security & safety costs for the staff. Provisions for cost-escalation and Project Implementation Support Costs (PSC) are also included under the inputs to be provided in the budget.

324. Equipment required for the implementation of R4D includes 10 4WD vehicles, 65 motorbikes, 30 sets of computer equipment and office furniture. Considering the chronic shortage of compaction equipment in Timor-Leste it will be required to procure rollers as well. As compaction is a critical aspect in road formation, sufficient compaction equipment is required. To enable R4D to implement the construction works as targeted, a minimum of 18 rollers will be required (one per district and one at each of DRBFC's Regional Offices to provide additional/back-up capacity).

325. The budget includes a provision for the operation and maintenance of R4D's operational equipment (like vehicles, motorbikes and office equipment) and program equipment (like the rollers). The lack of sufficient funds for the operation, maintenance and replacement of vehicles, motorbikes and office equipment was mentioned by DRBFC staff to be a serious operational constraint. R4D will discuss this issue with MoI and DRBFC with the aim of securing firm commitments from GoTL regarding the allocation of sufficient resources from GoTL to finance such operational costs.

326. From the third year onwards such GoTL operational funds should be secured for the operation, maintenance and – as necessary – replacement of office equipment and motorbikes used by DRBFC staff working in R4D. A budget for this needs to be prepared during the second year of R4D. For an eventual second 4-year phase of R4D, equipment operational and replacement requirements from GoTL's side need to be discussed, agreed upon and confirmed during the design of such an eventual 2nd phase. For this purpose R4D will engage with DRBFC in the 4th year to develop a maintenance and replacement schedule for funding by GoTL

327. During the implementation of R4D, all equipment procured by the ILO will remain the property of the ILO – in according with its regulations, unless otherwise agreed upon with AusAID. During the fourth year of implementation of R4D it will be decided, in close consultation between ILO, AusAID and GoTL what will be done with the equipment (disposal, handing-over or to be kept under ILO's responsibility) – this will also depend on the decision regarding the eventual implementation of a 2nd phase of R4D.

328. It is proposed that R4D will manage these 18 rollers and rent them out to contracted contractors if these contractors don't own rollers themselves. In the case of hire-purchase agreements, contractors need a steady workload during the loan period and as it is not sure that this can be achieved, it is recommended that this management option is further explored in detail during the implementation of R4D.

329. A summary of the total budget requirements is presented in table 7. The total required AusAID contribution to R4D is estimated at US$ 30 million and the GoTL recommended additional allocation to rural roads is US$ 20.6 million to R4D for the delivery of the envisaged program's outcome and outputs. Details of the budget are provided in Annex 23.

Table 7: Summary Budget Requirements for 4 Years

PROPOSED BUDGET AusAID for R4D	**US$**
International Experts and Consultants	7,226,000
Support Staff	622,200
Local Travel and Allowances	220,000
Missions	560,000
National Staff and Consultants	190,000
SUB-TOTAL PERSONNEL	8,818,200
Sub-contracts	14,373,000
Fellowships	90,000
Training and Workshops	270,000
Equipment	1,015,000
Operations and Maintenance	469,631
Sundries	544,333
SUB-TOTAL	25,580,164
Program Support Cost	3,325,421
Provision for Cost Increase	1,094,414
TOTAL AusAID BUDGET	**30,000,000**
RECOMMENDED GoTL ALLOCATION FOR RURAL ROADS	
Sub-contracts Works	**18,594,000**
Staffing inputs	**1,975,200**
TOTAL RECOMMENDED GoTL ALLOCATION	**20,569,200**
TOTAL PROPOSED BUDGET (AusAID and GoTL)	
Sub-contracts Works	**31,792,000**
Staff, Equipment, Ops, Training, etc.	**18,777,200**
GRAND TOTAL R4D	**50,569,200**

Annex 1: Consultations, Workshops and Field Visits of Design Mission

Date	Institution	Persons Met
01-08-2011	AusAID/ILO (briefing)	Jeff Prime (First Secretary), Jose Assalino, Tomas Stenstrom
	DRBFC – Regional Engineers	Joao Pedro Amaral (Chief of Operations), Pedro Alexandre
	ILO	Jose Assalino (CTA), Tomas Stenstrom (TIM-Works TL)
02.-08-2011	RDP III	Simon Done (Advisor)
	DNRD	Julmiro das Neves (Director interim)
	MSATM	Carlito Martins (DG), Miguel Carvalho (Director Planning, Monitoring & Evaluation)
03-08-2011	ADN	Samuel Marcal (Director), Alex Sermento (National Advisor)
	ADB – Our Roads Our Future	Mrs. Naomi (Social Advisor), Luis Bere Buti (Deputy Project Coordinator)
	MoF – Autoridade Publicas Autonomas	Mr. Manuel Monteiro (Director), Mrs. Catherine (Advisor)
	DRBFC	Mr. Gama (Chief Planning Section)
	MoF	Jose Antonio Fatima Abilio (Director Aid Effectiveness)
04-08-2011	LGSP	Dominggos Soares (Policy & Legislation Advisor), Annemarie Decavalio, Jacob Lete
	Directorate of Environment	Egido Gimarais (Director for Environment), Francisko Porto Chief of Department of Environment
	AECCOP	Vincente Maubisse
	DNSAS - Besik	Keryn Clarke (Project Manager)
05-08-2011	Public Works, DRBFC	Domingos Caeiro (Secretary of State for Public Works), Milton Monteiro (Director DRBFC)
	DRBFC	4 Regional Engineers
	ADB	Richard Phelps (Senior Infrastructure Specialist)
	MoF	Agostinho Castro (Director do Ocrcamento), Daniel Wilde (Expenditure Review Advisor of Planning and Financial Management Capacity Building)
08-08-2011	Visit to DRBFC rural road opened by DRBFC few years ago, along the Dili-Baucau National Road	
	Visit TIM-Works rural road works along the Dili-Baucau National Road	Chief of Suco, SEFOPE Engineer, District Administrator Baucau, staff YEPP, Sub-District Administrator, SEFOPE District Officer
	District Development Committee Baucau	District Administrator, District Development Officer, various staff of DA Office
	Regional Office DRBFC Baucau	Pedro Alexandre and various staff Regional Office
09-08-2011	District Administration Office Viqueque	District Administrator, Secretary, District Development Officer, Sub-District Administrator.
	Visit on-going TIM-Works rural road works in Viqueque District	Various construction workers. In addition a FGD with 5 women workers was conducted
10-08-2011	Workshop / brainstorming session – Discussing issues and design features of R4D	Representatives of DRBFC, ADN, MSATM, AusAID, ILO
11-08-2011	DRBFC	Joao Gregorio (Head of Planning & Design Department)
	ADB: TA to DRBFC	Sonya Sampson (Acting TL), Ramon Mananggit (database specialist), Ruby Umlas (engineering specialist), Fernando L. Da Rosa (Project & Finance Manager of ADB PMU)
	PSCDP	John Walsh (Program Manager), Maria Braz (Program Coordinator)
12-08-2011		
	JICA: TA to DRBFC	Mr. Koji Naito, JICA TL / Road Maintenance Expert
	Workshop / brainstorming session – Discussing issues and design features of R4D	Representatives of DRBFC, ADN, MSATM, AusAID, ILO
	MSATM	Jenny Amal (Advisor Decentralization)
	KSTL (Association of Trade Unions)	Conceicao da Costa (President), Tito Geronimo (Secretary General).
	MoF - Statistics	Elias dos Santos Pereira (Director Statistics)

Date	Institution	Persons Met
15-08-2011	EC	Costas Tsilogiannis (Minister-Councelor / Head of Operations)
	DNSAS – Besik	Bruce Bailey (M&E Advisor)
	SEFOPE	Lucio Bere Taci dos Santos
16-08-2011	AusAID Program (Education & Employment)	Miriam Smith (AusAID Program Manager), Manuel Guimaraes (AusAID Program Coordinator)
18-08-2011	GoTL – presentation proposed outline R4D	Representatives of DRBFC
19-08-2011	AusAID – Debriefing / Presentation of Aide Memoire	Head of Mission AusAID and other AusAID staff, ILO staff.

Annex 2: Reference Documentation

1. ADB Country Partnership Strategy Timor-Leste 2011-2015, Poverty Analysis (summary).
2. ADB Country Partnership Strategy Timor-Leste 2011-2015, Gender Analysis and Strategy (summary).
3. ADB Country Partnership Strategy Timor-Leste 2011-2015Sector Assessment Transport (summary)
4. ADB-JFPR Our Roads Our Future – Implementation Plan, Review Mission Report and Progress Report.
5. ADB/AusAID - Infrastructure Technical Assistance in MoI. Report of mid-term review, 2010
6. ADB/AusAID - Infrastructure Technical Assistance in MoI, TA Design Features and Safeguard Issues.
7. ADB/AusAID - Infrastructure Technical Assistance in MoI, Technical Assistance Report.
8. Use of Advisers in the Australian Aid Program - Guidance Note 1: Operational Policy Implementation Checklist, March 2011.
9. ADB: Timor-Leste Country Strategy 2006-2010. Final Review.
10. Use of Advisers in the Australian Aid Program - Guidance Note 2: Technical Assistance Options for Developing Capacity, March 2011
11. Use of Advisers in the Australian Aid Program - Operational Policy: Adviser Planning, Selection and Performance Management, March 2011.
12. AusAID Draft Universal Design Guidelines for the Australian Aid Program for Transport Infrastructure and Disability.
13. AusAID Child Protection Policy, January 2009.
14. AusAID Quality Requirements for Partner-Led Designs, 2009-2010
15. AusAID Assessing and using partner government systems for public financial management and procurement, 2011-2012.
16. AusAID Guidelines for Integrating Environment into AusAID Programs - *Initiatives and Activities Guidance 2010-2011*.
17. AusAID: Guidelines for Integrating Gender Equality into Aid Activity Design.
18. Australia – Timor-Leste Country Strategy 2009-2014.
19. A Training and Development Framework for the Civil Service of Timor-Leste, Policy Paper, December 2010, RDTL (Comissão da Função Pública).
20. Regime for Training and Development of Employees of the Civil Service (*functional translation" of the Training & Development Decree-Law of 2011).*
21. Public Sector Capacity Development Program: Senior Management Course (SMC) Overview.
22. Course Outline – Administrative Assistant Course for Timor-Leste Civil Servants.
23. World Bank: Timor-Leste Civil Service Review, June 2011
24. R4D Concept Note, May 2011.
25. R4D Concept Note Cover
26. Engagement Plan outlining how AusAID and ILO will work together
27. Concept Note Summary
28. Comments on Concept Note by AusAID Peer Reviewers
29. Minutes of AusAID Concept Peer Review Meeting of 6 June 2011.
30. Minutes of R4D Stakeholders Workshop of 3 March 2011.
31. ILO Technical Cooperation Manual version 1.
32. Timor-Leste Strategic Development Plan 2011-2030, July 2011.
33. Rural Development Program III, Technical Assistance to Design the Master Plan for Rural Roads, Final Report.
34. Various TIM-Works Documents (Project Proposal May 2008, Independent Mid-term Evaluation Final Report January 2009, EC Monitoring Mission Reports November 2010, Impact Study May 2011).
35. UNDP/UNCDF Briefing Note on Local Governance and Local Development in Timor-Leste
36. Project Document EC-funded Rural Roads Rehabilitation and Maintenance Project, October 2011.
37. Budget for 2011 MoI Capital Development Projects.
38. General State Budget for 2011- Book 6: Infrastructure Fund and Human Capital Development Fund.
39. Timor-Leste Labour Force Study 2010.
40. Draft Decree Law of 2011 on Integrated District Planning and Development.
41. R4D Design Mission Plan.

42. Priority Tables for Viqueque District, NSD/UNFPA, 2008.
43. Population Data from 2010 Timor-Leste Census.
44. Timor-Leste: Poverty in a Young Nation. MoF/DNE/WB, November 2008.
45. PSCDP: Performance Management Framework, July 2010.
46. Public Sector Capacity Development Program (PSCDP) Phase 1 – Activity Completion Report, June 2010.
47. IMF: Democratic Republic of Timor-Leste; Public Financial Management – Performance Report, 2010.
48. AusAID: Timor-Leste Water and Sanitation Sector Financial Management Analysis, May 2011.
49. Terms of Reference R4D Design Mission, July 2011.
50. USAID: Poverty Reduction and Transportation Infrastructure in Timor-Leste, 2006.
51. United National Development Assistance Framework UNDAF 2009-2013.
52. Appropriate Wage Rate and Related Issues for Employment Intensive Public Works Programmes in Timor-Leste, ILO 2008.
53. ILO Gender Guidelines 2007.
54. ILO Decent Work Country Programme Timor-Leste 2008-2013.
55. Climate Change in Timor Leste, UNDP, CARE and CIDA, 2003.
56. Various Technical Manuals of TIM-Works.
57. YEPP Mid-term Evaluation Report, 2010.
58. Decentralization and Local Government in Timor-Leste: Policy Orientation Guidelines for Decentralization and Local Government in Timor-Leste, 2008.
59. Timor-Leste: General Budget of State for 2007, 2008, 2009, 2010.
60. Evaluation of World Bank Group Program: Timor-Leste Country Program Evaluation 2000-2010.
61. Rural Road Maintenance – Sustaining the Benefits of Improved Access, ILO 2007.
62. Timor-Leste Country Environmental Analysis, July 2009, Sustainable Development Department East Asia & Pacific Region, World Bank.
63. Democratic Republic of Timor-Leste. State Budget 2011, Budget Overview, Books 1, 2, 4 and 5.
64. National Directorate of Aid Effectiveness, Ministry of Finance, Government of Timor-Leste. Discussion Paper: A new approach to Technical Assistance in Timor-Leste.
65. Climate Change in Timor-Leste – A Brief Overview of Future Climate Projections. SCIRO, September 2010; Prepared for the Department of Climate Change and Energy Efficiency (DCCEE) of the Government of Australia.
66. A Staged Approach to Assess, Plan and Monitor Capacity Building, Australian Government, AusAID, May 2006
67. Democratic Republic of Timor-Leste, Ministry for Economy and Development, Secretary of State for Environment. National Adaptation Programme of Action (NAPA) on Climate Change, December 2010.
68. Democratic Republic of Timor-Leste, Decree-Law No. 5 / 2011 of 9 February, Environmental Licensing.
69. Democratic Republic of Timor Leste, Ministry of Infrastructure, National Directorate for Roads, Bridges and Flood Control. Preparing the Road Network Development Project (ADB TA No. 7100-TIM). Initial Environmental Examination. Rehabilitation of Road Link Ermera to Maliana (A11-01), May 2009

Annex 3: Indicative Overview Capital Investments in Roads Sector in Timor-Leste 2007-2011

(Including planned project funding that has been approved, i.e. the EC-funded RRRMP)

	Program/Project (Implementing Partner)	**Funding Source**	**Implementation period**	**Budget National, District Roads** (US$ million)	**Budget Rural Roads** (US$ million)	**Total Budget Roads** (US$ million)	**Districts and Remarks**
1	CEIC-RSIP (CARE)	ADB	2007-2009	0	0.6	0.6	Bobonaro
2	RDP II (GTZ)	EU, Germany	2007-2011	0	1.5	1.5	Bobonaro, Covalima
3	YEPP (ILO)	AusAID	2008-2012	0	1.0	1.0	All 13 districts of Timor-Leste
4	TIM-Works (ILO	AusAID, EU, Ireland, Spain, Norway	2008-2012	0	11.0	11.0	Aileu, Ainaro, Baucau, Bobonaro, Dili, Lautem, Liquica, Mantuto, Viqueque.
5	Our Roads Our Future (CARE)	ADB	2010-2013	0	3.5	3.5	Bobonaro, Covalima, Oecussi
6	RDP III (Lendell Mills/BCEOM)	EU	2009-2013	0	1.0	1.0	Manufahi
7	RDP IV-RRRMP (ILO) (to start)	EU	2011-2015	0	14.0	14.0	Ermera, Covalima, Oecussi, Ainaro, Bobonaro, Liquica
8	Cash for Work (ILO)	EU	2010-2011	0	0.7	0.7	Baucau, Bobonaro, Emera
9	Construction Mola bridge	JICA	2010-2011	10.8	0	10.8	
10	Road Network Development Sector Project	ADB, GoTL	2009-2015	52.9	0	52.9	National and district roads in various locations
11	Road Climate Resilience Project	WB, GoTL	2011-2015	23.0	0	23.0	National roads in various locations
12	Infrastructure Fund	GoTL	2010-2011	16.4	0	16.4	
13	MoI/DRBFC/PM Office	GoTL	2007	2.8	0	2.8	
			2008	20.0		20.0	No data on rural roads budget
			2009	16.2		16.2	No data on rural roads budget
			2010	25.0	0	25.0	The budget was US$ 72.9 m. but US$ 25 m. was spent
			2011	42.3[152]	0	42.3	
	TOTAL			**209.4**	**33.3**	**242.7**	

[152] This includes US$ 25.8 million for DRBFC from the General Budget of State 2011 (source: Book no. 4 of the Budget of State 2011) and US$ 16.5 million from the Infrastructure Fund (source: Budget Infrastructure Fund 2011, Annex 2-B Dotaçãoes Orçamenta/ para 2011 ($'000) Fundo de Infra-estructuras.

Annex 4: Summary ILO Experience and Expertise in Timor-Leste and Internationally

The ILO has been present in Timor-Leste since 2001. The ILO Employment Intensive Investment Program (EIIP) in Timor-Leste started in 2005 with the implementation of emergency employment projects, including the € 2.5 million "Work for Peace" funded by the EC and implemented through the ILO and SEFOPE. These projects were implemented from 2005 to 2007 and provided employment on road maintenance and limited rehabilitation in all 13 districts of the country. The projects also involved initial technical training for engineers and supervisors.

Since 2007 the ILO and SEFOPE are implementing the AusAID funded Youth Employment Promotion Programme (US$16.45 million). The YEP Programme includes a road maintenance component that also incorporates a capacity building component for local community-based contracting. The approach of YEP regarding the implementation of the road maintenance cum capacity building component is the same as applied under the EC-funded TIM-Works project.

From September 2008 onwards the ILO and SEFOPE are implementing the US$ 10 million project "*Investment Budget Execution Support for Rural Infrastructure Development and Employment Generation (TIM-Works)*" which is co-financed by the Government of Timor-Leste, the European Union, Ireland and Norway. It has been designed to contribute to the Government's priorities of creating employment, reducing poverty, stimulating economic growth and increasing social stability.

TIM-Works integrates capacity building activities – targeting both the public and private sector – with the rehabilitation, construction and maintenance of strategically important rural roads. The Project had been designed as a 'primer' for a large scale public works programme and for this reason its original implementation period was been limited to 2 years Due to delays related to capacity limitations among the implementing partners and the small contractors – combined with unexpected adverse weather conditions – the time frame for its completion has been extended to early 2012.

The Project applies appropriate labour-based (equipment-supported) approaches, technologies and design standards in the construction works and promotes the recruitment of the rural poor, with a special emphasis on youth and women, to be engaged as workers during the construction works. Construction activities under TIM Works focus on improving basic access by improving and maintaining key rural road links.

Road rehabilitation works are implemented in 9 districts and maintenance activities are implemented in all 13 districts of the country. Construction targets include the rehabilitation of 300 kilometres of rural roads and the maintenance of 1500 kilometres of district and rural roads. TIM-Works also aims at capacitating small local contractors to create a reservoir of competent personnel in the communities and districts for future road reconstruction and maintenance activities. After training, the small commercial contractors and community contractors are given the opportunity to bid for and implement road rehabilitation and maintenance works, with close supervision from project trained supervisors.

TIM-Works has also established linkages with training providers, in particular through the YEP Programme. TIM-Works is also actively involved in key policy and strategy development activities, including the formulation of a Rural Roads Policy (Ministry of Infrastructure) and the development of a policy framework for rural development. TIM-Works' capacity building component focuses on he development of national and local capacities to plan and programme road rehabilitation and maintenance that use labour-based methods, review and optimise maintenance practices to intensify labour use, outsourcing implementation of works to local contractors and community groups.

The Project has reviewed, amended and introduced new procedures and techniques aiming at increasing the impact of rural infrastructure investments on poverty reduction, employment creation, crisis prevention, and community-level social stability. The project is also engaged in the development of policies, strategies, procedures and guidelines for the application of labour-based rural road rehabilitation and maintenance through local contractors.

Through the implementation of employment-intensive rural roads programmes in Timor-Leste during the last 5 years and the experiences gained in applying integrated capacity building cum construction approaches – in particular through TIM-Works – the ILO EIIP has gained valuable insight and knowledge about feasible and effective delivery modalities and methods for such integrated construction and capacity building programmes in Timor-Leste.

The recently approved EC-funded Rural Roads Rehabilitation and Maintenance Project (RRRMP) is, in many ways, a continuation of the TIM Works programme, focusing upon labour-based road rehabilitation and private sector development. More emphasis will be given under RRRMP to build sustainable capacities among small-scale local contractors, including building capacities among private training providers. Capacity building activities under RRRMP also envisage the certification of contractors' training courses against national standards and the accreditation of the training providers. RRRMP – like TIM-Works – will apply an integrated construction cum capacity building approach and the physical targets of RRRMP include the rehabilitation of 150 km of rural roads.

Through its Employment-Intensive Investment Programme (EIIP) the ILO has been implementing internationally employment-intensive infrastructure investment programs for over 30 years in collaboration with over 60 countries worldwide, of which 15 countries in Asia and the Pacific[153]. The ILO-EIIP is currently the organization's second largest technical cooperation programme within the ILO. EIIP's principal means of action is capacity building at various levels in both the public and private sector. Its activities focus on small-scale rural and urban infrastructure development – including activities in the rural roads sector.

EIIP deals with poverty reduction through employment generation in infrastructure investments in developing countries. By demonstrating how infrastructure can be created, rehabilitated and maintained cost-effectively with labour-based methods (also referred to as modified equipment based methods) methods and using environmentally sound approaches and work methods, the EIIP has a major impact on creating sustainable infrastructure and associated employment opportunities, using locally available resources in a balanced and responsible way.

Its activities cover a wide spectrum – ranging from policy advisory and development services at national level, to technical assistance and management support in the planning and implementation of infrastructure projects. A wide variety of operational tools and guidelines has been developed by the ILO covering the various aspects of the project planning and implementation cycle – including maintenance aspects – for all levels of management and supervisory staff, for both the public and private sector.

Over the last three decades the ILO-EIIP has developed extensive expertise and experience in providing technical assistance to central and local governments in strengthening public and private sector capacities for the procurement and (contract) management of goods, services and works required for the delivery of infrastructure investments (including maintenance). These capacity building activities are delivered through partnerships and projects implemented with technical government line agencies, academic institutions, national training centres and partner projects and agencies. Technical advisory and support activities in which EIIP is involved include:

- The development of curriculum, guidelines and international training courses covering the planning, procurement, contract management, implementation and monitoring of investments in infrastructure development (incl. maintenance);
- Capacitating line agencies and the private sector through direct training and training of trainers;
- Strengthening the capacities of national vocational training centres, including assistance in accreditation and certification of these centres and their training curriculum;
- The design and delivery of integrated and hands-on training modules for government agencies and contractors involved in the delivery of infrastructure investments;

[153] Including the Philippines, Nepal, India, Cambodia, Vietnam, Lao PDR, Sri Lanka, Afghanistan, Pakistan, Bangladesh, Indonesia and Timor-Leste.

- The development of appropriate contract modules and procurement procedures for the delivery of infrastructure investments through small-scale contractors and community-based organizations;
- Operational support and technical guidance/supervision in delivering infrastructure investments;
- The design and implementation of systems to monitor impacts of infrastructure investments;
- The institutionalization of local resource-based appropriate technologies;
- Policy and strategy advisory services to government regarding the application of employment-intensive and local resource-based approaches in planning and delivering infrastructure investments.

An important reason why infrastructure was singled out as a sector with high potential for employment generation has to do with technology choice. ILO's EIIP has consistently promoted – where appropriate – labour-based approaches for infrastructure creation and maintenance, not only because of the social benefits (employment generation, wages distributed), but also because these approaches are technically and financially competitive in the economic situation of most developing countries today, in particular for investments in (sub-) sectors like rural roads, community-based irrigation, community forestry, etc. ILO's EIIP addresses a wide range of social and economic issues, including:

- The incorporation of employment and poverty considerations into mainstream investment policy;
- Promoting small enterprises in the construction sector (private sector execution of public works);
- Promoting the optimum use of local resources (human, material, intellectual);
- Public procurement, encouraging transparency of public resource allocation;
- Development of public/private partnerships, through contract systems and procedures;
- Improvement of working conditions;
- Gender issues;
- Decentralization and related institutional reforms;
- Community contracting and introduction of the principles of organization and negotiation in the non-formal rural and urban sectors;
- Providing a safety net for populations made vulnerable as a result of natural or man-made crises.

EIIP also serves as an instrument for employers' organizations to become partners in generating new sources of employment. An example is the involvement of small-scale contractors in using employment-intensive approaches for construction and maintenance, thereby establishing linkages between employment creation and the development of a domestic construction industry. EIIP projects also introduce ILO's fundamental social standards, e.g. through developing and introducing – together with government agencies, employers' and workers' organization – contract documentation with clauses related to minimum wage, minimum age, non-discrimination and injury insurance.

Operating both within the organisational framework of the ILO and its International Training Centre (ITC) in Turin (Italy), the ILO-EIIP Programme has the ability to respond quickly and flexibly to project needs and requests as they arise, whilst building on a network of local development experts at the ILO Headquarters in Geneva and its projects all over the world. Through ILO-ITC the EIIP Programme can also offer a variety of training courses, including courses on works procurement management, project management, procurement management in the public sector, equipment procurement management and employment-intensive investments for sustainable development:

EIIP has a comprehensive database (ASISTDOC: http://www.ilo.org/dyn/asist/asistdocs.home) containing over 8,000 documents relating to labour-based technologies and local level planning, produced by the ILO as well as its partners. Copies of these documents can be downloaded from the database or requested in hard copies through the facility within the database. A catalogue of key publications (The Labour-Based Technology Source Book) and training videos are also available.

Annex 5: Draft Outline Guiding Framework for Prioritizing Investments in Rural Roads

The prioritization and selection of investments in the development and maintenance of the rural roads network in Timor-Leste will be guided by the GoTL SDP, MoI/DRBFC's draft Rural Roads Policy and the Rural Roads Master Plan (RRMP) that will be developed by R4D (as an interim measure – pending the completion of the RRMP – the draft rural roads master plan developed with financial assistance from the EC under RDP-III will be used for guidance). In addition specific criteria will be developed for the prioritization and selection of specific rural road works. These criteria will be finalized in close consultation with the stakeholders during the inception period of R4D.

The main objective of the SDP and the draft Rural Roads Policy is to guide the sustainable development and management of rural roads and maximise the development impacts associated therewith. Specific goals and directions are:

- Rural road development should be targeted to maximise eradication of poverty and improve overall connectivity of the transport network. This will likely be best achieved by prioritising works which maximise economic, social and environmental benefits at least cost
- Rural access will be sustainable in economic, social and environmental terms;
- Rural transport infrastructure will be complementary to improve mobility and access to rural people;
- Rural transport modes and services will be affordable, equitable, dependable and safe.
- Priority for investment where the density of rural poor is high;
- Priority for investments where rural populations are comparatively isolated from access to social and economic facilities and services
- Assign works priorities on the basis of a standard and agreed system of multiple criteria that embrace economic, social and environmental impacts.
- Equitable geographic coverage to be achieved to ensure that rural roads accessibility improves for all rural people in Timor-Leste.

Within the above described framework it is proposed to develop a set of objective verifiable indicators for the prioritization of investments. In the selection process district administrations will be actively involved to ensure that the selection of the rural road works also reflects district priorities. Possible criteria that can be considered in the prioritization (including ranking) and selection process relate to:

- Size of the population that would benefit from the improved road works.
- The relative isolation of communities from social and economic facilities and services (this can for example be expressed in terms of a composite accessibility index that combines the population served by the road and the travel times to key basic social and economic facilities and services).
- Number of social/economic services/facilities served.
- Traffic volumes.
- Agricultural production or other economic benefits, i.e. a higher priority to be given to rural roads that have more scope for enhancing local agricultural and economic development.
- Expected gain in travel time and decrease in travel cost.
- Investment costs per beneficiary (i.e. people living in the direct area of influence of the road).
- Road network connectivity criteria (regarding the road network in the locality; this may include district and national roads if these are essential for local people to access social and economic facilities and services).
- The priority of rural roads in the rural road network (i.e. distinguishing between core and non-core rural roads). .

A scoring system for each of the criteria/indicators can be used to arrive at a composite priority score to enable ranking of the priorities.

The main focus of R4D will be on the rehabilitation and maintenance of the existing rural road network, in line with the GoTL SDP. For investments in rural roads maintenance, R4D's first priority will be to maintain the rural roads rehabilitated under R4D itself. The second priority will be to maintain roads rehabilitated by TIM-Works and continue the maintenance of roads that are currently being maintained by TIM-Works (TIM-Works will come to and end in February 2012). A third group of roads to be considered for maintenance under R4D are the roads that will be rehabilitated under the EC-funded RRRMP which is expected to start during the 4th quarter of 2011.

Annex 6: Indicative 10-Year Investment Plan for Rural Roads Development (in US$ million)

No	ACTIVITY	Cost per km (US$)	2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		**2022 Total**	
			km	$	km	$	km	$	km	$	km	$	km	$	km	$	km	$	km	$	km	$	km	$
1	**Maintenance**		**700**	**1.76**	**950**	**1.84**	**1115**	**1.97**	**1400**	**2.92**	**1550**	**3.04**	**1800**	**3.60**	**2050**	**3.80**	**2450**	**4.84**	**2750**	**5.08**	**3150**	**6.12**	**3025**	**34.97**
	Routine maintenance	800	700	0.56	800	0.64	965	0.77	1150	0.92	1300	1.04	1500	1.20	1750	1.40	2050	1.64	2350	1.88	2650	2.12		**12.17**
	Periodic maintenance	8,000	150	1.20	150	1.20	150	1.20	250	2.00	250	2.00	300	2.40	300	2.40	400	3.20	400	3.20	500	4.00		**22.80**
2	**Rehabilitation**		**50**	**2.50**	**115**	**5.75**	**135**	**6.75**	**150**	**7.50**	**200**	**10.00**	**250**	**12.50**	**300**	**15.00**	**300**	**15.00**	**300**	**15.00**	**375**	**18.75**	**2175**	**108.75**
3	**Open new roads**		**5**	**0.10**	**5**	**0.10**	**10**	**0.20**	**20**	**0.40**	**20**	**0.40**	**20**	**0.40**	**20**	**0.40**	**20**	**0.40**	**0**	**0.00**	**0**	**0.00**	**120**	**2.40**
4	**Annual investment costs**			**4.36**		**7.69**		**8.92**		**10.82**		**13.44**		**16.50**		**19.20**		**20.24**		**20.08**		**24.87**		**146.12**

Sub-total capital investments R4D

R4D 2012-2015		**4.36**		**7.69**		**8.92**		**10.82**														**31.79**
R4D extension 2016-2019										**13.44**		**16.50**		**19.20**		**20.24**						**69.38**
Other Funding Sources																		**20.08**		**24.87**		**44.95**

Notes:

1. It is assumed that by 31st December 2011 700 km of rural roads would be in a maintainable condition. These are the TIM-Works roads that are being rehabilitated under the project (300 km), those being maintained through YEPP/TIM-Works (300 km) and rural roads rehabilitated and maintainable under other projects (100 km)
2. The expected gradual increase in delivery capacity by the public and private sector is reflected in the gradual increase of the annual budget for capital investments. In 2012 this budget is approximately US$ 4.4 million and it increases over a period of 10 years to US$ 24.8 million
3. Once all the rural roads have been rehabilitated to basic all-year round access standards (including the use of pavements like asphalt on very steep and easily erodable section) the estimated annual costs for maintenance are estimated to be around US$ 9.4 million (US$ 2.4 million for routine maintenance; US$ 6.0 million for periodic maintenance and US$ 1.0 million for emergency maintenance).
4. If life-cycle costing is applied to the rehabilitation and maintenance of rural roads at the unit rates mentioned in above table (and assuming a periodic maintenance cycle of once every 4 years and a life-time of a road of 20 years) it can be estimated that the life-cycle costs for one kilometre of rural road that is providing year-round basic road access is about US$ 100,000 (undiscounted figure).
5. The indicative investment plan shows that – should it be agreed that R4D is being extended for another 4 years – around US$ 69 million in capital investments would be required for the program for the period 2016 to 2019.
6. A time horizon of 10 years to bring all the rural roads to a maintainable standard is in line with the recommendations made by the draft rural roads master plan that was financed by the EC.

Annex 7: ILO Procurement Procedures and Regulations

The basic ILO procurement rules which will be applicable to R4D are set out in ILO Circulars, Series 8, No's 58, 59 and 60. The procedures concerned can be summarized as follows:

- *Where a single purchase is not likely to exceed $30,000*, a formal bidding process is not required. However, obtaining and retaining on file written quotations is mandatory together with the comparative evaluation undertaken prior to the purchase. Reasonable efforts are to be undertaken to obtain comparative prices. Beyond $30,000, a formal bidding process is mandatory, where at least three qualifying bids should be sought;

- *For local procurement of goods, equipment, works and/or services valued at between $30,000 and $100,000 under projects funded from Extra-budgetary sources*, the responsible project official should: seek approval from the ILO Procurement Bureau, Geneva (PROCUREMENT) of solicitation documents prior to sending them to suppliers; undertake a comparative evaluation of offers received; obtain the approval of the external office overseeing the project; and sign and manage the related contract.

- All proposed contracts exceeding $100,000 are required to be submitted to the ILO Contracts Committee for review and final recommendation to the TR/CF. In addition, where a contract is likely to exceed $250,000 in value, a preliminary submission must be lodged with the Contracts Committee and approval given by TR/CF to initiate the related competitive bidding process. PROCUREMENT coordinates the submission of cases to the Contracts Committee.

- The ILO approval procedure for the approval of procurement is a specific ILO requirement. Experiences from TIM-Works indicate that this approval procedure does not lead to undue delays and the approval from the external office is obtained usually within 2 weeks and this period is factored into the planning. This ILO requirement does not affect R4D's aim of harmonizing procurement procedures, as key issues in this respect relate to procedures related to competitive bidding, the pre-qualification and selection of contractors, and the harmonization of contractual frameworks. The ILO procurement requirements provide sufficient flexibility to allow for such harmonization with government procedures.

- PROCUREMENT carries out *international procurement of equipment or services* on behalf of Extra-budgetary funded projects irrespective of the amount involved. PROCUREMENT approves and issues solicitation documents; opens bids received; carries out the evaluation of offers received; obtains technical clearance to a contract recommendation from the field office or the project official; and signs the related contract. PROCUREMENT may delegate responsibility for issuing, opening and evaluating bids and authorize signing of the contract. The contract is managed by the requesting project;

- In certain circumstances provided for in Chapter X (Procurement) of the ILO Financial Rules, a waiver of competitive bidding may be authorized by the ILO Treasurer and Financial Comptroller (TR/CF);

- A procurement procedure is initiated by the completion of relevant standard request forms. These include the *Equipment Purchase Request* (EPR) and the *Contracting Request* (CR). These are prepared by the TL and are sent to the relevant ILO units technical and financial clearance. Once these clearances are obtained, a purchase authorization is issued;

- All proposed contracts exceeding $100,000 are required to be submitted to the ILO Contracts Committee for review and final recommendation to the TR/CF. In addition, where a contract is likely to exceed $250,000 in value, a preliminary submission must be lodged with the Contracts Committee and approval given by TR/CF to initiate the related competitive bidding process. PROCUREMENT coordinates the submission of cases to the Contracts Committee;

- The most recent version of the standard ILO contracts for goods or services, which incorporate ILO terms and conditions, should be used and are available from PROCUREMENT (CONTRATPROCURE@ilo.org). These contracts apply irrespective of the value of the purchase. Any proposed modification to the standard contract wording or terms and conditions must be approved by PROCUREMENT before the contract is signed. In addition, where amendments to a contract may be required during its implementation due to changing circumstances (e.g., variation in the items to be delivered under the contract; new, unplanned activities identified), advice should be sought from PROCUREMENT as early as possible. Where amendments are proposed, the contract should be amended prior to the effective date of the change;

- PROCUREMENT is solely responsible for the purchase of vehicles, under all sources of funds.

The project Team Leader is responsible for maintaining local inventory records for all expendable and non-expendable equipment and reporting on any loss or damage to PROCUREMENT. PROCUREMENT authorizes all disposal of equipment whether it involves a transfer, sale of surplus items or disposal of unserviceable items with no commercial value. ILO procedures for the disposal of equipment are described in ILO *Circular, Series 8, No. 60*. Specific procedures govern the recording and disposal of non-expendable equipment which cost at least US$ 600 and have a life expectancy of less than five years. These procedures are explained in the ILO Technical *Cooperation Equipment Inventory Manual* and the *Manual for Trust Fund Projects.*

As per ILO rules and regulations, equipment and vehicles purchased with Project funds remain ILO property until formally transferred or otherwise disposed of at the end of the project. Details of transfer/disposal of equipment and vehicles at that time will be decided upon, following consultations with AusAID, and with PARDEV involvement.

Annex 8: Interim Capacity Development Framework

1. Context

As highlighted in the Concept Note and reconfirmed during the design consultations GoTL's capacity to manage and implement investments in developing the rural road sector is limited. Capacity constraints are sector wide and include all key stakeholders[154] associated with managing the ongoing development of the rural road network. The design process has confirmed a holistic approach to capacity development will be necessary if GoTL is to reasonably be in a position to independently manage rural road development the future.

Given the state of rural roads, as observed during the design process and the clear lack of human resource and institutional capacity (including financing) it is highly unlikely that GoTL (through the MoI) will be able to achieve the SDP rural roads objectives or be in a position to independently manage the sector within five years. Capacity development is not a supply driven process. It requires a high level of commitment by partners and can be quite slow in an evolving complex policy context (e.g. decentralization).

As a consequence R4D will need to carefully balance and govern the tension between the absorptive/sustainability concerns, and the desire to forge ahead with road works. The use of incentives and the selective use of direct and indirect capacity development strategies (working with specialist technical personnel) will be important tools to moderate this tension. An eight to ten years horizon is more realistic if the rural road sector is to be independently managed by GoTL.

This interim Capacity Development Framework (CDF) will guide initial capacity development initiatives supported by R4D. A final R4D CDF will be produced during the first six months of program mobilization. The final CDF will replace this interim CDF.

2. Capacity Development Definition

Within the context of R4D, the program will adopt the AusAID definition of capacity development, i.e.:

"The process of developing competencies and capabilities in individuals, groups, organisations, sectors or countries which will lead to sustained and self-generating performance improvement." [155]

Direct and in-direct strategies will be used to address the natural tension between absorptive and operational capacity within organizations. R4D will allocate resources (human and financial) to fill resource gaps (in-line), as well as providing resources which provide broader human resource support to partner teams and organisations. The AusAID Joint Advisory Review (2011) clearly indicates a preference for the use of in-line and team/organisational support where possible to support government objectives in East Timor.

R4D capacity development will (where possible) target and work through existing GoTL entities and systems. To guide the capacity development efforts of R4D, a broad range of technical assistance (TA) will be deployed to support program implementation.

3. Capacity Development Principles

Current thinking now sees capacity development as a comprehensive approach involving all necessary stakeholders in a change process aimed at improved performance of organizations within a system or sector. All capacity development activities supported by R4D will be founded upon established and confirmed capacity development principles in use in many international development programs[156]. Key capacity development principles to be adhered by R4D include:

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[154] Including: MoI, DRBFC, MSATM, ADN, District Offices, contractors and local communities.
[155] *AusAID (2004) Capacity Development Principles and Practices*
[156] As an example, refer to: The Philippines-Canada Local Government Support Program – Trekking the Good Governance Terrain (2006)

1. Holistic framework – R4D must work within a multidimensional framework, i.e. all supported initiatives must take a multi-stakeholder approach to development.
2. Participatory – R4D must be fully inclusive of all stakeholders. Stakeholders must own the process.
3. Priorities Base - capacity development responds to local partners' priorities and encourages local ownership of development.
4. Result based – capacity development must encourage positive change that is articulated, planned and measurable.
5. Collaborative - Capacity development requires the coordination of efforts by governments, the private sector and international agencies working in the sector.
6. Culturally situated – capacity development must respect the predominant values, cultures and incentive systems of the organizations and people involved in the process.
7. Analytical – Capacity development requires analytical thinking in the preparation of strategies for development.
8. Staged sequencing – Capacity development supports on-going change and improvement processes.
9. Iterative – Capacity development requires flexibility and creativity as well as allowance for trial and error to determine the best ways to achieve one's objectives.
10. Practical – Capacity development initiatives need to be practical and modest.

The capacity development framework[157] which will be developed on mobilisation will reconfirm the relevance and applicability of above capacity development principles within the context of R4D. R4D will set realistic targets for capacity development, which will be integrated into, monitored and adjusted as necessary through the M&E framework.

4. Knowledge Management

Knowledge management is considered a critical component of effective capacity development. Individuals and institutions must learn and develop if they are to effectively move forward. R4D will work closely with counterparts to ensure DRBFC is able to acquire, store and use information so it is better positioned to manage the rural roads sector.

Critical knowledge based activities to be supported by R4D to enhance institutional learning and development within DRBFC will include:

- The development of a multi-year Rural Roads Master Plan that will guide investments;
- The preparation and implementation of Annual Action Plans (AAP) and R4D Annual Work Plans that operationalize the Master Plan;
- The establishment, institutionalisation and operationalization of a quality control & assurance system, including effective management information systems (i.e. Rural Roads Information System);
- The establishment, institutionalization and implementation of transparent and a practical contract management system, and
- The development and implementation of a communications and knowledge management strategy to ensure that information about R4D and its outcomes are communicated to all stakeholders and beneficiaries. The communications and knowledge management strategy will also be used to facilitate that demand-driven interventions are developed at the sub-national level (for example the submission of proposals for rural road works at local level through the government planning and budgeting processes at sub-national level or the submission of requests from the DAs Offices for particular training courses).

5. Technical Assistance and the Use of Advisors and Technical Experts

The National Directorate of Aid Effectiveness under the Ministry of Finance has recently published a discussion Paper titled '*A new approach to Technical Assistance in Timor-Leste"*. The purpose of this discussion paper is to outline possible options by GoTL to improve the results delivered by technical

[157] Refer to section 6 of this interim strategy.

assistance (TA). The approach proposed in the discussion paper seeks to provide suggestions on how TA, in its broadest form, can be better positioned to address these challenges. The underlying premise is that the advisor/counterpart model be discarded as a *generic* model for skills transfer – while acknowledging at the same time that this model will remain relevant in some situations – and replaced with a range of approaches that better deal with the capacity challenges at hand.

Instead of focussing too much on the traditional advisor/counterpart model, GoTL wants a range of intensive and customized skills development strategies which are designed to reflect the absorptive capacity of the country staff, the broader range of skills requirements (including management skills) and the strategic objectives of GoTL.

As proposed by GoTL, as much attention must be placed on receiving and absorbing skills as on transferring them. In addition there should be a greater focus on working with GoTL to design systems and processes that are grounded in the daily work realities faced by public servants. Training must be relentlessly hands-on, intensive, and must be in place over a long period of time. Follow up support and refinement must be built into original project designs.

The design of the TA needs to be able to carry out both functional tasks and help in developing the needed capacities. A strong emphasis on capacity building is needed and in this context the focus of the TA needs to move away more from the one-on-one adviser-counterpart relationship and be broadened to include:

- Provision of capacity building advice, analysis and support to individuals and groups;
- Individual and institutional capacity building (including the development of required operational systems and procedures and their harmonization – as much as possible building on existing GoTL systems and procedures to enhance sustainability);
- Formal and informal training (one-to-many) and on-the-job training, including training on basic core skills;
- Strengthening the institutional skills & knowledge base;
- Increasing the resource base;
- Providing specialist/expert advice to groups or individuals;
- Intensive mentoring support;
- Perform specific task and functions and gradually hand-over these functions to counterpart staff as capacities develop;
- Engage in activities that aim at enhancing a 'performance culture' at individual and institutional level (i.e. attitude and behavioural changes).

The discussion paper emphasizes the importance of a proper identification of the known capacity challenges as a critical condition for the effective design of capacity building activities.

Within the context of R4D, technical assistance involves transferring, receiving and absorbing knowledge and skills to counterpart entities (individuals, teams and organisations) working within the rural roads sector. Transferring, receiving and absorbing knowledge and skills occurs not only through advisers and technical experts, in line with the recommendations as outline in the above mentioned discussion paper on the use of TA in Timor-Leste, but also through other capacity development methodologies including:

- Incentives which encourage active and ongoing engagement and commitment to the program. This may include enhanced workplace conditions and, in the second phase of R4D, allocations through GoTL systems in support of road management.
- A communication and knowledge management strategy which will inform the Program and be used to encourage a demand driven response in addressing the lack of resourcing to the sub-sector. This will also support relationship building between stakeholders and beneficiaries.
- Encouraging and supporting twinning opportunities with appropriate national and international agencies and entities capable of providing direct and/or indirect support to implementing agencies/teams. This will include links to other programs and initiatives with synergies to rural road development.
- Internships – linking existing and future (technical) expertise, mostly graduates, to address sector capacity gaps.

- Targeted and customized training. This may include short courses using local (e.g. polytechnic and INAP) and international providers.
- Supporting, coaching and mentoring by all ILO specialists and advisors.
- Establishing strategic links to government and non-government (donor) scholarship programs to ensure ongoing capacity requirements are addressed.
- On the job training, including working closely with local contractors and the procurement system.

R4D will proactively work DoI and DRBFC to strengthen their involvement and capacity in the identification, recruitment and management of Advisor/Technical Specialist positions and counterpart positions. Terms of Reference (TORs) and work plans for Advisors/Technical Specialists and counterpart staff will be finalized and agreed upon between GoTL, AusAID and ILO at least two months prior to the expected starting date of the Advisors/Technical Specialists and counterpart staff.

Specific objectives, deliverables and results expected of Advisors/Technical Specialists and the counterpart staff will be clearly identified in their TORs. Where relevant, cross cutting capabilities will be included in TORs for all Advisors/Technical Specialists and counterpart staff. Considering the expected roles and responsibilities of the Advisors/Technical Specialists, their TORs will include responsibilities and tasks related to capacity development, technical advisory functions and implementation support (in-line).

Where possible and practicable, GoTL and ILO will carry out joint selection processes to identify appropriate female and male Advisors/Technical Specialists expertise and candidates for counterpart positions. Appointments and nominations of key ILO Advisors/Technical Specialists must be endorsed by GoTL.

6. Capacity Development Framework

A Capacity Development Framework (CDF) will be developed by the program within the first nine months of implementation. The CDF will supersede this interim CDF.

The Institutional / Capacity Development Specialist will facilitate the development of the CDF. Once developed and endorsed by the program, the CDF will guide ongoing capacity development efforts of R4D. The development of the CDF will require the implementation of two discrete activities during the inception phase of the program, these being:

i. The development of detailed rural roads capacity needs assessment and capacity development framework[158]. This activity will be conducted in partnership with key counterparts from the MoI and it will be used to guide the implementation of capacity development activities over the life of the program. This capacity needs assessment and associated framework will extend beyond the immediate needs of MoI and will take into account liaison and interface with other relevant GoTL agencies working within and across the rural roads sector.

   It will also address key cross-cutting issues including: gender equity; disability; child protection; environmental safeguards, and climate change amongst others. The development of the capacity needs assessment and capacity development framework will be initiated on mobilization and will in itself be a key R4D capacity development activity lasting an estimated nine months. The developed capacity development framework will replace this interim framework.

ii. The development of a program specific staged capacity development model – which is part of the capacity development framework – appropriate to the needs of the R4D. The staged capacity development model acknowledges and builds upon the fact capacity development is rarely linear. The model will focus on institutional/organization capacity and be based on the staged capacity building modelling being used across a number of AusAID (and other donors) sponsored

[158] This will become the final capacity development framework for R4D.

programs.[159] The stages of institutional development to be supported and monitored is usually premised upon:

Dependent	Guided	Assisted	Independent
TA controls the particular work function and may do most of the work, takes the decisions or is highly influential in the decision-making process. This is typically the case when an adviser is appointed to an in-line position, or where local capacity for organizational and professional functions is very low	TA still has a high level of control, but counterparts can undertake the straightforward elements of the function under supervision or guidance. Staff may not be fully aware of the full function – they 'may not know what they don't know' – and may not be aware of the need to follow through and take responsibility for ensuring the process or function is fully completed.	Counterparts are now taking prime responsibility for the function, can handle most of the complex aspects and know when they need to ask for assistance. The role of TA is more one of support, with occasional reminders and prompts to follow through, and occasional higher levels of support for new situations or for infrequent events (such as preparing an annual budget).	Counterparts are now fully competent to do the whole function. They may still use TA for highly technical work that occurs only once a year or on an ad hoc basis. This is similar to bringing in external consultants as needed, a common practice in developed countries where it is more cost-effective to 'buy in' the capacity rather than develop it in-house.

The development of the staged capacity development model will be started on mobilization and will in itself be a key capacity development activity lasting an estimated nine months.

The – to be developed – capacity development framework will be used to:

1. Provide ongoing guidance with regards to the implementation R4D's capacity development activities;
2. Enhance DRBFC's ability to access and adapt acquired knowledge by better management and use of knowledge and communications systems and strategies, including technical data contained in existing management information systems;
3. Monitor the progress of institutional capacity development – i.e. working towards institutional independence in managing the rural road sector;
4. Inform the Annual ABCD Review of Capacity Development to be captured by the R4D M&E framework.

[159] Variations of the staged capacity development model are used by: PSCDP; BESIK; PNG Transport Sector Program; RAMSI – 3 Pillars (Joint Assessment of Agency Independence), and the CIDA sponsored LGSP program in the Philippines.

Annex 9: Draft Outline Terms of Reference of Key R4D staff

Draft Outlines of TORs of the proposed professional R4D ILO staff are presented in this Annex. Whereas the CTA reports officially to the ILO Liaison Officer for Timor-Leste, to whom he/she is accountable, all the other ILO Specialists – with the exception of the ILO Regional Engineers – report to the ILO CTA to whom they are accountable for their work. The ILO Regional Engineers are accountable for their work to the ILO Senior Engineering Specialist.

In line with R4D's immediate objective and aligned with the GoTL's policy on the use of TA, all the ILO Specialist and the CTA will have responsibilities regarding capacity development, implementation support and the provision of technical advice in their field of expertise. Responsibilities of the Specialists regarding capacity development also include the planning and development/design of training modules and organizing and conducting training in their fields of expertise, as well as the provision of on-the-job training, mentoring and coaching support.

This concept is explained in section 5 of Annex 8 on *Technical Assistance and the Use of Advisors and Technical Experts.* Apart from the need to establish and maintain an effective liaison and coordination with concerned external stakeholders, all the ILO Specialist will have to liaise and coordinate closely internally within R4D, i.e. with the various ILO Specialists and with the DRBFC counterpart staff.

All the professional staff positions have a number of required skills and competencies in common. To avoid repetition in the description of these required skills and competencies, they are mentioned here below but not repeated under the TORs for the individual positions. Common required skills and competencies are:

- Professional and personal endurance and commitment to complete complex assignments efficiently and effectively in a high demanding working environment;
- Demonstrated ability to train, coach and mentor counterpart staff – within an individual, team and organisational context;
- Proven ability work as a team player in large and diverse teams and to maintain a good balance between initiating activities and consulting, coordinating and liaising with stakeholders and other concerned parties;
- Demonstrated strong analytical and conceptual skills and the ability to prioritize assignments.
- Demonstrated excellent verbal and written communication skills;
- Excellent interpersonal and cross-cultural skills and gender sensitiveness;
- Good computing skills, at least in MS Word, MS Excel and MS PowerPoint.
- Excellent command of English. The ability to speak one of the local languages (Tetun, Portugese and/or Bahasa Indonesia) is considered an asset for international positions. Incumbents for international positions have to be willing to learn one of the local languages. For national ILO Specialists, the incumbents are required to be fluent in the prevailing local language/dialect spoken in the area where they will be working).

R4D will not only provide equal opportunities for the employment of women and men, but also for people with a disability as program staff and R4D will encourage the same approach by MoI/DRBFC.

As all of the key ILO R4D Specialists and Advisors will be involved in capacity development activities, it is important that these specialists and advisors have the necessary capacity development skills. Equally important is to ensure that the ILO R4D Specialists and the DRBFC counterpart staff is well aware of gender issues and other social safeguards issues. R4D will provide the opportunity – as required – to improve the capacity development skills and to provide training on social safeguards issues for the ILO R4D staff and the DRBFC counterpart staff who are expected to be engaged during later stages of the implementation of R4D to become involved in in-house capacity development and/or the implementation of the Social Management Framework.

1. **Chief Technical Advisor** (4 years) – in association with the MoI/DRBFC nominee for R4D he/she will be responsible for the overall management and technical implementation of the program. The

CTA will be leading the R4D team and has the overall responsibility for the implementation of the program. Key responsibilities of the CTA include:

- Establishment, management and internal/external coordination.
- Management of the budget and other program resources and overall quality control.
- The preparation and submission of progress reports and other technical reports.
- The development of effective working relations with the different groups of stakeholders.
- Dissemination of information and advocacy about the program
- Representation at donors' meetings and international, regional and national seminars/conferences.
- Provide technical inputs to R4D documents and, as and when relevant, provide policy advice
- Participate in review and evaluation missions, conduct seminars, workshops and technical meetings, and provide inputs in writing manuals and training guidelines on relevant topics.
- Prepare job descriptions for staff and consultants and actively participate and assist in recruitment activities and supervise/guide/assess their work.
- Ensure the timely availability and optimal utilization of resources and inputs.
- Overall responsibility for the application of all social and environmental safeguards.
- Report on R4D's progress, constraints and achievements.
- Participate in internal and external Project reviews, meetings of steering committees, donor meetings, evaluations and monitoring missions, as and when required.

Specific skills and experience required:

- Proven managerial capability and leadership ability in the context of managing rural roads projects in challenging environments, in collaboration with governments of developing countries, with local representatives of donor agencies, and a heterogeneous teams composed of consultants, experts, and local collaborators of different educational and cultural background;
- Demonstrated and recognized technical expertise to devise and/or apply methods, concepts, approaches and techniques that are relevant to the implementation of large integrated rural roads and capacity building programs and projects.
- A demonstrated commitment to gender equality.

2. **Institutional/Capacity Development Specialist** (3 years – with specialist inputs during the 4th year as required) – in association with a DRBFC nominee or team, he/she will be responsible for the finalization and implementation of the overall capacity development framework – including the implementation of the staged capacity development model – and the coordination of all capacity building activities of R4D. He/she will also be responsible for guiding the development and institutionalization of decentralization practices supporting rural road management and its development at the sub-national level He/she will also have a key role in guiding knowledge management. During the 4th year of implementation the CTA will assume overall responsibilities of the Institutional/Capacity Development Specialist and specialist institutional/capacity development inputs will be provided in this period – as required – through ILO staff or consultants' inputs.

   The Institutional/Capacity Development Specialist will ensure that all R4D sponsored initiatives target and increase the opportunity for the development of competencies and capabilities in individuals, groups or organisations supported by R4D. He/she will work in association with a MoI/DRBFC nominee or team, to collaboratively manage capacity development initiatives supported by R4D, including: guiding the capacity needs assessment and the development and implementation of a staged capacity development model as outlined in the design document. The Institutional Development Specialist will also have a key supporting role in the development of the required knowledge management within DRBFC. His/her key responsibilities include:

   - Establish and manage an integrated Capacity Development Framework, including enhancing gender equity and other cross-cutting outcomes, in support of program initiatives. This includes an assessment of the current levels of capacity within partner agencies at national and sub-national level and the use of this information to assist R4D to finalize the Capacity Development Framework;
   - Establish agreed and realistic targets for capacity development within the overall context of R4D and examine opportunities for linking identified targets to incentives supported by R4D;

- Work with the CTA, M&E Specialist and other specialists and partner agencies to ensure that capacity development impacts are appropriately monitored and reported. Also document opportunities for ongoing capacity development within the overall context of R4D;
- Document opportunities for applying and interpreting GoTL decentralization policy for strengthening DRBFC's ability to meet sub-national needs and priorities;
- Liaise with key partner agencies to ensure that the objectives and outcomes of R4D appropriately reflect and take into account GoTL's policy and practices associated with decentralization.
- Work with sub-national partners and stakeholders to ensure rural road management appropriately reflects local capacity and priorities where possible and appropriate.

Specific skills and experience required:

- Demonstrated experience and understanding of contemporary capacity development strategies and systems;
- A thorough understanding and/or experience of the capacity development needs of partner agencies in the Timor Leste (or similar) context;
- Demonstrated commitment to gender equality and equity and other social safeguard priorities
- Demonstrated experience and understanding of decentralization policy and impacts in the Timor Leste (or similar) context.

3. **Roads Engineering Specialist** (3 years; with follow-up inputs during the 4th year – as required) – in association with a DRBFC nominee or team, he/she will be responsible for all the engineering aspects related to the planning, contracting, implementation and quality control & assurance aspects of R4D, including environmental aspects and strengthening capacities of laboratories for quality control & assurance. He/she will also have the responsibility for the development of a comprehensive rural roads master plan, which should be completed within 15 months of the start of R4D. During the 4th year of implementation the ILO Regional Engineer based at the DRBFC Regional Office in Dili will assume the overall responsibilities of the engineering functions of the Roads Engineering Specialist and the CTA will provide inputs for activities related to the rural road master plan. As required, the budget has the provision of specialist engineering inputs during the 4th year. Key responsibilities of the Roads Engineering Specialist include:

   - Review existing guidelines, standards, procedures, criteria, specifications and formats related to the various engineering aspects of the planning and implementation of the rural road works (including environmental aspects) and provide leading support in their adaptation, modification and/or development, as required.
   - Provide capacity building inputs, implementation support and technical advice regarding the design, construction, rehabilitation and maintenance of rural road works.
   - Review existing information and rural roads database systems (including road condition inventories) and provide capacity development inputs, implementation support and technical and conceptual advice regarding the required development, modification and application of such systems;
   - Provide support in assessing capacity building requirements and in developing and implementing the staged capacity development model in relation to rural investment planning;
   - Support DFRBC to identify the key steps in the development and upkeep of the rural roads master plan (building on already available EC-funded draft rural roads master plan);
   - Provide technical inputs in the preparation of the rural roads master plan and guide the work of the various Specialists and counterparts involved (like the MIS and GIS specialist and their DRBFC counterparts);
   - Provide inputs in the development of annual work plans related to physical rural road works.
   - Direct and manage the R4D international Regional Engineers to ensure that outputs are delivered in accordance with work plans, as per specifications and standards, within budget and in compliance with the environmental management framework for R4D.
   - Provide inputs in the assessment of engineering-related capacity requirements (including quality control and quality assurance), the development of the capacity development framework (for engineering aspects) and the implementation of the staged capacity building model.

- Closely coordinate with internal/external stakeholders and projects to ensure complementarities of activities, synchronization and standardization of approaches, systems and standards, and the optimum utilization of available resources for the preparation and implementation of the rural roads master plan and the delivery of the physical outputs.

Specific skills and experience required:

- Demonstrated technical and managerial experience and expertise in providing leading engineering inputs (including environmental aspects) in the implementation of large and complex rural roads and capacity building programs and projects.
- Demonstrated experience and expertise in the development of national-level (rural) road master plans in settings similar to the one in Timor-Leste
- Very good technical knowledge about the application of labour-based construction approaches and technologies in the rural roads sector.
- Demonstrated experience in the development of guidelines, standards and specifications related to the planning and implementation (including quality control and quality assurance, and environmental safeguards) of rural road works.
- Sufficient knowledge and understanding of principles and designs of MIS and GIS system to be able to provide guidance and direction to the GIS and MS specialists in the development and operation of appropriate and effective MIS and GIS systems

4. **M&E / Knowledge Management Specialist** (3 years with follow-up inputs during the 4th year, as required) – in association with a DRBFC/DRR nominee or team, the M&E / Knowledge Management Specialist is responsible for the establishment, management and implementation of the R4D M&E Framework. He/she will also be responsible for the development and implementation of the R4D Knowledge Management and Communication Strategy and guide the development and the institutionalization of interagency liaison and links (i.e. MoI, MSATM, ADN, and MoF) in support of rural roads management and development. The M&E / Knowledge Management Specialist will be responsible for the overall architecture of the performance management arrangements for R4D. This includes monitoring and assessing the progress and performance – against agreed indicators and/or work plans – related to R4D's immediate objective, scheduled inputs, planned activities, targeted outputs and established procedures, processes and standards (including quality standards). The CTA and the Institutional / Capacity Development Specialist will provide inputs and support to the R4D M&E and Knowledge Management activities, as required. Key responsibilities of the M&E / Knowledge Management Specialist include:

   - Finalization of the Logical Framework and the M&E Framework;
   - The establishment of objectively measurable performance indicators;
   - Assess the current levels of communication capacities and knowledge management and communication and knowledge sharing within MoI/DRBFC and between MoI/DRBFC and other stakeholders;
   - Develop and implement a communications and knowledge management strategy which allows DRBFC and other key stakeholders acquire and apply knowledge necessary to enhance GoTL's ability to manage the rural roads sub-sector;
   - Supporting the establishment and operation of a KM unit or KM functionalities that will have the responsibility for capturing, analysing and communicating a range of performance information about the rural roads sub-sector;
   - Liaising with key personnel within DRBFC and partner agencies to ensure that the objectives and outcomes of R4D are effectively communicated and shared amongst key stakeholders and that they interface effectively within the GoTL whole of government context This should influence an increase in (demand driven) resource allocations to the rural roads sub-sector;
   - Examine opportunities for strengthening demand driven linkages to program activities supported by R4D and document opportunities for ongoing strengthening of partner agency liaison within the overall context of R4D;
   - Examine opportunities for linking identified targets to incentives supported by R4D;

- Ensure that the whole of the GoTL perspectives with regards to the development and management of the rural roads sub-sector are effectively communicated and acted upon with the MoI and DRBFC operational environment;
- Establishing a comprehensive baseline, with sex-disaggregated data, including a specific gender baseline, and gender sensitive indicators;
- Supporting the analysis of performance data and the preparation key reports;
- Developing and refining M&E tools and protocols;
- Contributing to the promotion of a 'performance culture' within DRBFC;
- Providing technical oversight of key M&E processes, including the development and refinement of tools/approaches.

Specific skills and experience include:

- Demonstrated experience in sector level performance management, preferably in transport-related international development programs;
- Demonstrated experience and understanding of knowledge management (including management information systems) and communications in a development context;
- Demonstrated experience and understanding of whole of government operations and policy in the Timor Leste (or similar) context
- Proven skills in developing and mentoring M&E capacity within counterpart institutions
- Appreciation of organisational change processes in complex and low capacity environments
- Knowledge of gender equality mainstreaming concepts and strategies
- Experience in the use of Management Information Systems (MIS) and Geographic Information Systems (GIS)

5. **Database Specialist** (1 year; with intermittent inputs from the second year onwards) – in association with a DRBFC nominee or team, he/she will be responsible for the design, testing and operationalization of the RRIS and contribute to the development of the overarching MIS that will be used for planning, programming, budgeting and monitoring of investments in rural road works. The MIS will be a main operational tool in support of the knowledge management functionalities that will be developed (like data storage and analysis, reporting and other means of sharing and presenting information). To the extent possible and feasible, the development of the system will build on already available systems within DRBFC, like the Project Monitoring and Control System (PMCS), the Unit-Cost Database System and the Road Condition Inventory Database System. Key responsibilities of the Database Specialist include:

   - Make an inventory and carry out an assessment of the design and operational features of the currently used systems for collecting, processing, analyzing and disseminating data related to the planning, budgeting and programming of investments in (rural road) infrastructure, including road maintenance;
   - Analyze the main data flow processes that are relevant to the effective collection, storage, processing, analysis and reporting of the data.
   - In close consultation with the stakeholders identify data and information requirements needed to enable the planning, budgeting and programming of investments in road infrastructure, including road maintenance.
   - In close consultation with the concerned stakeholders develop and/or further improve the design of the required database systems and its interface functions. As required, include standard security features, queries and reporting functions in the database system.
   - Once the database has been developed, conduct tests to check the effectiveness, integrity, relevance, internal – and external consistency, and validity of the database system and its data, and ensure compatibility with the GIS system that will be developed in parallel.
   - Document the design and the user guidelines of the developed and tested database systems.
   - Provide training (including training of trainers) to the intended users of the database systems regarding the design and the application of the database systems.
   - Assist the stakeholders' database operators in the preparation of budgets for investments in road infrastructure.

- Conduct technical and information-sharing meetings with the stakeholders regarding the design and use of the developed database systems.
- Assist the stakeholders' database operators as and when required regarding troubleshooting.
- Prepare budgets and work plans for the development of the database systems and the required human resource capacities.
- Follow-up with stakeholders to facilitate data exchange.
- Assist in improving data collection procedures and formats and their standardization; both vertically and horizontally.

Specific skills and experience required:

- Extensive working experience in IT and database design and implementation, including data collection and data entry.
- Experience in the design and development of relational database systems.
- Proficiency in the development and implementation of large- and medium-sized systems of networking and internet is an advantage.
- Ability to independently develop and install systems of large size/complexity.
- Competency in providing technical guidance to other system analysts.
- Demonstrated proficiency in all aspects of system administration, design and maintenance, including hardware and software requirements, system facilities and execution protocols.
- In-depth knowledge of Microsoft Access and open-source software and experience with MS SQL Server.
- Advanced knowledge of all MS Office products.
- Working knowledge of GIS application
- Ability to programme PHP and HTML.
- Excellent conceptual, analytical and computer application skills.

6. **GIS Specialist** (1 year; with –as required – intermittent inputs from the second year onwards) – in association with a DRBFC nominee or team, he/she will be responsible for the design, testing and operationalization of an effective Geographic Information System that can be used as a supportive and complementary tool to the MIS. Key responsibilities include:

   - Review and analyse existing GIS capabilities and operational tools;
   - Develop, test and operationalize the GIS for use by DRBFC. .
   - Install, administer and update information/database systems (i.e. spatial and meta-databases) to ensure smooth operations of related GIS development and activities.
   - Identify needs and conduct surveys for the development of the required geo-network for use in subsequent activities.
   - Make arrangements for the procurement of computer hardware, software and supplies and for the repair and maintenance of computer equipment. Troubleshoot, and whenever possible resolve problems on-the-spot.
   - Provide inputs in the implementation of R4D's various GIS development related activities;

   Specific skills and experience required:

   - Demonstrated expertise in the field of GIS (preferably with a specialisation in GIS).
   - Substantial working experience relevant to the assignment;
   - Substantial experience in developing, analyzing, designing, installing, operating and maintaining a GIS – including the necessary operational systems for efficient and accurate flows of data.
   - Advanced knowledge of ArcGIS/ArcInfo and other (open-source) software relevant to the development and operation of a GIS, including creating queries to prepare relevant data sets from MS Access-based or other attribute database platforms.
   - Excellent conceptual, analytical and computer application skills.

7. **Contract Management/Procurement Specialist** (1 year; with – as required – intermittent inputs from the second year onwards) - in association with a DRBFC nominee or team provide guidance regarding all procurement and contract management related issues and provide guidance and support

in the modification, development, testing and/or operationalization of systems and procedures related to procurement and contract management. During the 2nd, 3rd and 4th of implementation, the Senior Engineering Specialist will also provide inputs with regards to the development and implementation of procurement and contract managements capacities and system. The Contract Management / Procurement Specialist will be responsible for the development and introduction of (labour-based) tendering and contracting procedures and guidelines. Key responsibilities include:

- Review current pre-qualification, tendering and contracting procedures and guidelines applied in the major labour-based and equipment-based rural infrastructure (rural roads) development programmes and projects in Timor-Leste, both for GoTL-funded and donor-funded investments.
- Assess current technical and administrative capacities of MoI/DRBFC and the DAs regarding pre-qualification, tendering and contracting of labour-based and equipment-based rural roads infrastructure works.
- Develop/modify as required appropriate and practical guidelines[160], procedures and formats for tendering and contracting of labour-based works (including maintenance) to private contractors.
- Finalize the tendering and contracting guidelines and procedures in consultation with the main stakeholders and implementing partners/contractors.
- Provide specific recommendations for follow-up action and technical assistance that will be required regarding: a) training of contracts administrators/users; b) training of contractors; c) the institutionalisation of the labour-based contracting procedures and guidelines within PW/DRBFC.
- Prepare tender documents, announcements to tender and other documentation related to the tendering procedures, including documentation related to contract preparation and the processing and awarding of contracts and process variation orders on contracts.
- Maintain office administrative files, accounts and official records;
- Ensure that timely payments to contractors are made and keep records of payments and commitments to contractors.
- Maintain and regularly update the R4D contract management database.
- Provide inputs to progress reports, in particular with regards to the status of the contracts and financial commitments and expenditures incurred for awarded contracts.

Specific skills and experience required:

- Extensive experience – including hands-on operational experience as well as managerial experience – with procurement, contracting and contract management systems at various level in large and complex rural infrastructure programs and projects, preferably in the rural roads sub-sector.
- Extensive knowledge of and experience with various procurement aspects, contractual frameworks and contract management for investments in rural (roads) infrastructure, including contracting modalities using small local contractors and communities.
- Prior experience with the development and subsequent testing and institutionalization of procurement procedures and contractual frameworks, in contexts similar to the one in which R4D will be operating;
- In-depth knowledge and understanding of relevant internationally recognized contractual frameworks, like the FIDIC Short Form of Contract framework;

8. **Community Development/Gender Specialist** (2/75 years, with follow-up inputs during the 4th year – as required) - in association with a DRBFC nominee or team she[161] will be responsible for the development and implementation of community and disability initiatives in support of rural road management and development and guide the development and institutionalization of gender appropriate practices supporting rural road management and development.

[160] Including pre-qualification criteria and procedures, criteria for the evaluation of tenders, approval procedures, basic working conditions, general specifications, guidelines and formats for Bills of Quantities (BoQ), quality and quantity control procedures and payment procedures and modalities

[161] Considering the nature of the work and R4D's gender inclusive approach, the ILO intends to recruit a qualified female specialist for this position.

All activities sponsored by R4D will work within a holistic community, gender and disability framework. All activities supported by R4D will be subject to a community, gender equity & equality and disability analysis to anticipate and determine likely impacts and to suggest options and opportunities for maximising positive gender, disability and community outcomes across partner agencies and GoTL in general. The Community Development/Gender Specialist will work closely with the Gender Working Groups (GWGs) that have been established on 24 August 2011 (through a resolution passed by the Council of Ministers) in all ministries. Key responsibilities of the Community Development/Gender Specialist include:

- Assess the current levels of capacity within partner agencies to support gender and equity, community and disability initiatives and use this information to assist R4D to manage gender and equity, community development and disability activities;
- Finalize the draft social safeguards framework and prepare related operational tools required for implementing this framework, including the preparation of a gender and equity, community and disability strategies and plans;
- Undertake activities to ensure that R4D adequately addresses gender, disability, HIV/AIDS issues, child protection and labour issues, community imperatives and other equity imperatives, and also ensure that they contribute to support for the rural road sub-sector, which promotes equal opportunities and is free from discrimination;
- Conduct a gender analysis of the infrastructure sector and assist the DRBFC Knowledge Management Unit (or DRBFC's knowledge management functionalities) and implementing partners with the determination and publishing of gender disaggregated data which will allow R4D/GoTL to assess and analyse the impact of infrastructure decisions within a community, equity and disability framework.
- Assist the M&E specialist in the design of gender and disability sensitive indicators and in the development of a gender and disability baseline.

Specific skills and experience required:

- Demonstrated extensive experience and knowledge of contemporary gender and equity strategies, contemporary community and disability strategies and systems, in particular partner donors and GoTL policies;
- Extensive relevant experience at field level and in leading specialist positions in projects and programs with social safeguards objectives and issues similar to those in R4D.
- A thorough understanding and/or experience of the gender and equity, disability and community needs of partner agencies in the Timor Leste (or similar) context;

9. **Regional Engineers** (5 positions; for 4 years) - in association with a DRBFC nominee or team the Regional Engineers will be responsible for the technical management and implementation of all rural road initiatives at the sub-national level. It is anticipated these positions will, where possible, draw upon existing TIM-Works resources that become available at the time of closure of TIM-Works (February 2012). Key responsibilities of the Regional Engineers include.

- Supervise the work of the DRBFC staff involved in the planning, design, cost-estimation and implementation of rural road works and provide capacity building support through classroom training, on-the-job training, mentoring and coaching support to DRBFC staff and contractors.
- Assume the responsibility for the technical surveys, design, cost-estimation, implementation, supervision and quality control of the construction works (including maintenance works) of the sub-projects to which he/she will be assigned.
- Provide inputs in the preparation of bidding documents, the evaluation and contracting of works, and handing-over of the completed works to the owners of the infrastructure.
- Provide key inputs regarding the selection of appropriate local resource-based approaches, technologies and construction methods (aligned with the environmental operational guidelines for R4D) and recommended design specifications for identified, short-listed and/or selected sub-projects.
- Provide recommendations regarding the certification and payments for completed works.
- Provide inputs in the preparation of work plans, progress reports and other technical or monitoring and evaluation reports, in relation to engineering activities.

Specific skills and experience required:

- Extensive relevant experience and demonstrated knowledge in the field of rural road construction and maintenance, preferably in the field of local resource-based rural road rehabilitation and maintenance, and including environmental dimensions related to construction works.
- Relevant experience and engineering knowledge regarding the design and construction of low volume paved roads, river crossings and suspension/suspended bridges in hilly terrain and under conditions of heavy rainfall.
- Comprehensive knowledge of tendering procedures and contracting procedures.
- Proven ability to supervise project field staff and small contractors;
- Working knowledge of technical software programmes like AutoCAD is considered an advantage.

10. **District Coordinators** (national professional ILO staff) – in association with DRBFC nominated district staff and other key district stakeholders – ensure an effective outreach and implementation of R4D's capacity building activities and policy dialogue and implementation support (beyond the technical engineering support) – and to provide a link between the districts and the ILO and DRBFC R4D staff at regional level and at national level. The District Coordinators have to ensure such an outreach and should also provide a key liaison and coordination function at district level. To test the effectiveness of this set-up it is proposed that this arrangement is first tested in 5 districts during the first year of implementation. Depending on its effectiveness, it will be decided whether this set-up will be continued[162] (and expanded to 13 districts from the second year onwards) or not. Key responsibilities of the District Coordinators include:

    - Address immediate capacity shortfalls and implementation risks at district level with regards to the implementation of R4D's first year plan of operations and ensure the Program reach/progress at district level through a combination of implementation support, technical advice, capacity building activities and risk mitigation actions.
    - Act as the district-level conduit for the exchange of information between R4D at national (and regional) and district level. Act as R4D's district focal person for knowledge management and communication at district level (internal and external).
    - Assist with needs assessment at district level regarding activities related to the planning of investments in rural roads (including the preparation of the DIDP), including liaison with LGSP, PDD, LDP and the District Administration (for unconditional block grants provided to the District Administration for capital investments in rural road works).
    - Assist with the facilitation and implementation of R4D's capacity building activities at district level – focusing on the planning and delivery of investments in rural roads and including cross-cutting issues (social and environmental safeguards, gender issues).
    - Assist the R4D regional engineer and Dili-based R4D staff in providing oversight (including quality control and timely delivery), guidance and implementation support regarding planning, designing and contracting for road works and the implementation of technical surveys, base-line surveys, impact studies, etc;
    - Provide guidance and support to the district-based DRBFC staff in the planning and implementation of their work
    - Liaise and coordinate with the district administration and other district government authorities and district projects and programs (like PDD, LDP, LGSP, donor-funded projects) aiming at optimizing complementarities, synchronizing activities and harmonizing (quality) standards regarding the planning and delivery of capacity building activities and activities related to the planning, procurement and delivery of investments in rural road works.
    - Assist the district government with the preparation of annual plans and budgets related to rural roads development

[162] In the R4D budget 5 positions have currently been budgeted for. If these staffing inputs will be continued and/or expanded beyond the first year of implementation, funds will be allocated from the R4D budget line for cost escalation.

- Assist the R4D staff based at Regional and National level in various data collection and/or data validation and verification.
- Oversee (and assist with overseeing) the adherence and compliance to agreed procedures, processes, guidelines and standards related to the various aspects of R4D interventions (e.g. for road prioritization and selection, planning, design and cost-estimation, tendering, contracting, labour selection, women engagement, implementation, quality control, etc.)
- Provide R4D implementation support at district level to concerned executive bodies regarding the implementation of policy dialogue/advocacy activities that aim at increasing awareness regarding the importance of the allocation of resources for the development and maintenance of rural roads, and hence the need for the DAs to develop and submit comprehensive and justified proposals for investments in rural road works to the national level;
- Provide asset management support for R4D's assets, in particular the rollers.

Specific skills and experience required:

- Demonstrated experience and knowledge of current decentralization processes in Timor-Leste;
- A good understanding of contemporary gender and equity issues and contemporary community engagement and participation processes and systems;
- Proven ability and hands-on experience in coordinating complex infrastructure development and capacity building projects at local level;
- Demonstrated experience in supporting capacity building processes;
- Experience and/or exposure with the various aspects of the project implementation cycle of infrastructure projects (like scheme identification, prioritization and selection; budgeting; programming; surveying; design and cost-estimation; tendering and contracting; implementation and supervision) is considered an important advantage.

11. **Other Technical Expertise** (as required and identified): When requirements for additional technical expertise (national and international) are identified and endorsed by R4D partners, detailed TORs and recruitment strategies will be jointly developed and personnel recruited to allow for the appropriate deployment of the resources.

Annex 10: Effects of Levels of GoTL Engagement on Effectiveness of R4D

	Area of Engagement	Level of Engagement					
		High Engagement		Medium Engagement		Low Engagement	
		Description	Expected Effects on R4D	Description	Expected Effects on R4D	Description	Expected Effects on R4D
1	Timely allocation of envisaged GoTL capital investments	Equal or higher than envisaged	Physical targets can be achieved or even exceeded	25-75% of envisaged GoTL capital funding materializes	50-85% of physical targets can be achieved	0-25% of envisaged GoTL capital funding materializes	35-50% of physical targets can be achieved
2	Provision of GoTL counterpart staff as planned in R4D design	Equal to or exceeding planned staff inputs	Physical targets and capacity building outcome can be achieved	25-75% of staffing inputs materialize	Less scope for capacity building and risk of partial capacity substitution	Hardly any staffing inputs materialize	No scope for capacity building and not able to achieve R4D immediate objective
3	Interest and availability of counterpart staff for capacity building (and involvement in program implementation)	High interest and availability of staff	Positive effect on building individual capacities and delivery of capital investments	Medium interest and/or availability of staff	Less effective individual capacity building and adverse effect on the planning and delivery of rural road works	No interest and/or no or hardly any staff available	Not able to achieve R4D's individual capacity building objective and adverse effect on delivery of investments
4	GoTL is leading coordination and with other government stakeholders and donors	Effective led GoTL coordination	Positive effects on GoTL resource mobilization and more effective delivery of investments	GoTL formally leads coordination but is not effective or is led by R4D	Less GoTL ownership of R4D, and less chance to influence budget allocations and stream-line work with other donors	Absence of effective GoTL coordination	Adverse effect on R4D/GoTL to have an effective leading role in the rural roads sub-sector
5	Upstream policy dialogue	Active engagement of GoTL in dialogue and gradually taking the lead in this process	Positive effects on GoTL resource mobilization and institutionalization of structures for rural road investments	Passive role of GoTL in policy dialogue	Less effective impact of policy dialogue activities on resource mobilization and institutionalization of structures for rural road investments	No interest of GoTL in policy dialogue	Very limited scope of influencing budget allocations and institutionalizing structures and systems for rural road investments
6	Development and implementation of operational tools needed for effective planning, implementation and management of rural road investments	High interest and active engagement	Improvements in quality, timeliness and cost-effectiveness of investments in rural roads	Medium interest, insufficient commitment and/or insufficient staff resources for this activity	Less (cost-) effective planning, contracting, implementation, supervision and quality control, affecting R4D performance	No interest in development, improving and using operational tools and systems	Significant effects on the quality of the planning, contracting, implementation and overall delivery of the investments, with high risks of sub-standard work.
7	Development of a Rural Roads Master Plan, including maintenance investment plan	High interest and active engagement	High sense of ownership and powerful tool to influence budget allocations and setting investment priorities	Medium interest and engagement	Delays in finalization of master plan and less ownership, thus being less effective as key instrument in influencing budget allocations and investment priorities	No or little interest and engagement	Very limited scope to use the rural roads master plan as instrument to influence and guide budget allocations and investments, thus adversely affecting the objective of R4D

Annex 11: Draft Logical Framework

Causal Hierarchy		Indicators	MoV	Assumptions & Risks
Ultimate Beneficiaries	**Development Goal** Women and men in rural Timor Leste are deriving social and economic benefits from improved road access.	• Changes in rural road access • Changes in socioeconomic situation of women and men within vicinity of rural road works	• Assimilation of secondary data from Directorate of Statistics and Ministry of Infrastructure (baseline/endline) • Annual Rural Road Accessibility Assessment (**ARRAA**) • Gender Baseline	**Development hypothesis** Improving GoTL capacity to ensure rural road accessibility on a sustainable basis will enhance household socioeconomic wellbeing in rural areas
Direct Recipients	**Immediate Objective (Outcome)** The GoTL is more effectively planning, budgeting and managing rural road works using labour based methods, as appropriate.	Changes in GoTL effectiveness in planning, budgeting and managing rural road works	Annual Review of Building Capacity within the Directorate or Department (**ABCD Review**) Annual AusAID/ILO monitoring by Independent Monitoring Group (IMG)	**Implementation assumptions** • A viable institutional structure is available within DRBFC for the planning and delivery of investments in the development and maintenance of the rural road network • Sufficient resources are made available by GoTL to enable the effective establishment of structures and capacities for the delivery of investments in rural road works. • There is a continued interest within DRBFC for capacity building and enhanced performance • District administrations are able to provide required direction and oversight • People in target areas can be mobilised for labour on road packages • R4D Implementing partners are committed to gender equality goals and the different needs and constrains of women and men are taken into account during the whole project cycle, from the planning to the implementing phases
		GoTL commitment to reforms in rural roads sub-sector; progress of departmental capacity developments	Independent evaluations commissioned at mid-term and Year 4 Annual AusAID/ILO monitoring by Independent Monitoring Group (IMG)	

Delivery Team	**Outputs** • Knowledge management unit established • Rural Roads Master Plan developed • Protocol for developing Annual Action Plan established • Small contractor procurement system established • Basis and capacity for technical oversight of rural road packages developed • Capital investments in construction, rehabilitation and maintenance delivered	Road package metrics (package attributes, technical standards, compliance with cross-cutting requirements, community labour input)	Rural Road Information System (**RRIS**) Annual AusAID/ILO monitoring by Independent Monitoring Group (IMG) Six-monthly progress reports	**Management assumptions** • ILO/AusAID is able to negotiate a clear mandate for R4D within the MoI • ILO is able to engage appropriately skilled and experienced technical specialists and managers • The GoTL is able to prioritise definition of the rural road network • Ecological conditions permit road works • Sufficient resources are made available to significantly improve rural roads • The R4D management is committed to gender equality goals and the different needs and constrains of women and men are taken into due account in planning, design, implementation and monitoring of activities

Annex 12: Monitoring and Evaluation Framework

Performance Questions		Evidence/Indicators	Methods/Sources	Frequency	Responsi-bility	Communication & Report
Ultimate Beneficiaries	**Impact** • Has rural road access improved? • Are rural women and men deriving social and economic benefits from improved road trafficability?	• Kilometres of new rural road developed per year • Kilometres of existing rural road rehabilitated per year • Kilometres of existing rural road maintained per year • Percentage change in the number of vehicles per day using a sample of rural roads • Average roughness of a sample of rural roads • Ex-poste quality of road infrastructure (retaining walls, drains, culverts etc.) • Average distance/travel time to nearest market • Average distance/travel time to nearest health facility • Average distance/travel time to nearest school • Percentage people that used a vehicle to transport commodities to market in past week • Percentage change in weekly household expenditure on transport	Assimilation of secondary data from Directorate of Statistics and Ministry of Infrastructure Annual Rural Road Accessibility Assessment (**ARRAA**)	Baseline/ Endline Annual	KM Unit	• **Baseline Report** (to GoTL/AusAID) • **Endline Report** (to GoTL/AusAID) • Annual '**State of the Sub-sector Report**' (to GoTL/AusAID and public, media and NGOs)
Direct Recipients	**Outcome** • Is GoTL more effectively planning rural road works? • Is GoTL more effectively budgeting rural road works? • Is GoTL more effectively managing rural road works?	• Rural Road Master Plan developed and reviewed annually • Annual Action Plans prepared in accord with established protocol • Percentage rural road packages subject to a technical design • Annual GoTL rural road budget allocation • Percentage of annual rural road budget expended (disaggregated by district and by maintenance, rehabilitation and development) • Cost estimates database updated within previous six months • Percentage rural road packages recorded in Project Management & Control System • Number package contracts procured per year (disaggregated by district and by maintenance, rehabilitation and development) • Number person-days community labour utilised per year • Funds disbursed for community labour per year • Percentage rural road packages that meet all established technical standards	**ABCD Review** (comprising indicators listed here and evidence against capacity development framework)	Annual	KM Unit	• **ABCD Report** (to GoTL/AusAID; basis for internal reflection/planning session as part of AAP process)
		• Efficacy of capacity development approaches in fostering improved department performance in rural roads sub-sector • Stop/Go funding decision in Year 4 for 8 year program	Independent mid-term and final evaluations IMG reviews	Midterm & Year 4 Annual	Independent evaluators and monitors	• **Evaluation and IMG reports** (to AusAID/ILO/GoTL)
Delivery Team	**Outputs** • Is R4D delivering key program outputs on time, within budget and of sufficient quality?	• Work output and quality by Rural Roads Department	Package metrics compiled in Rural Roads Information System (**RRIS**)	At package completion	Site Supervisor Reports (supported by KM Unit)	• Quarterly Performance Update (circulated internally) • **Annual Performance Report** (APR) to inform AAP process and interested stakeholders
		• Planned v actual progress of ILO implementation	Contract milestones	Annual	ILO management	• Annual Plan/Report to AusAID

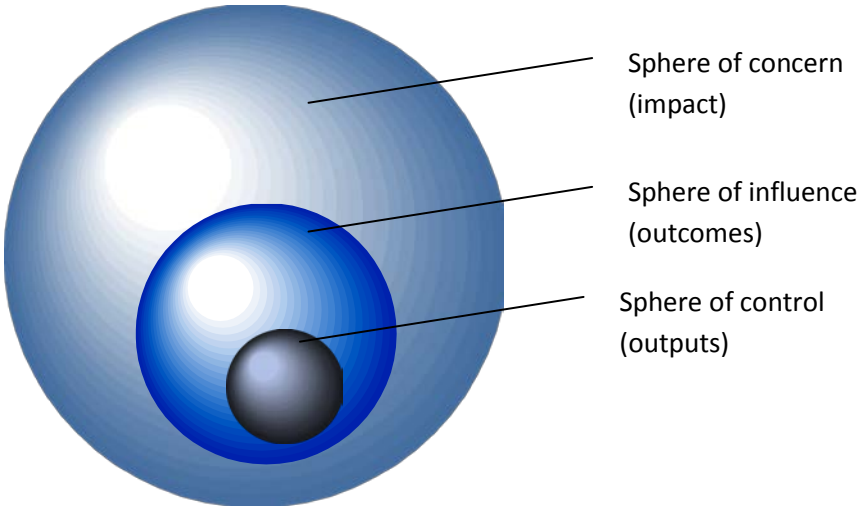
Annex 13: Rationale and Philosophy of the M&E Approach Proposed for R4D

M&E Rationale

All development programs can be seen as 'policy experiments'[163]. As such, program designs align with an implicit 'theory' about how desirable social change might occur—a 'theory of change'[164]. To bring about social change, human actors interact through time within a social system[165]. One role of a design document is to explicate the 'theory'—the temporal sequence of relationships ('actors') and issues ('factors') that will influence the desired changes. One role of M&E is to test the 'theory'—to judge the extent and merit of the changes fostered by the program[166]. These judgements are required to satisfy demands for accountability ('to prove') and learning ('to improve'); and ultimately to reflect on the merit of the original 'policy experiment'.

M&E Philosophy

This M&E plan takes an actor-centric perspective—an 'interpretist epistemology'[167]. This perspective appreciates that, by definition, social change takes place through the interaction of human actors within a social system. No humans, no change. The practical implications of this are that program performance will be examined from the perspective of each of the key classes of human actor. This is reflected in the explicit emphasis on human actors in the goal and objective, and in the logframe and M&E Framework. This M&E philosophy also appreciates that social change takes time, and that the program delivery team cannot control the outcome of change processes. The stages of change effected by a program may be conceived as falling within the three concentric spheres of control (outputs), influence (outcomes) and concern (impact).



M&E Challenges

M&E for R4D will encounter universal challenges faced in the field of development M&E, including:

- **Concepts of validity:** M&E work is affected by broader methodological debates in social research. Some stakeholders value quantitative/objective measures of performance that can provide 'representative' findings. Other stakeholders see quantitative/objective measures as

[163] Rondinelli, D. A. (1993) *Development projects as policy experiments: an adaptive approach to development administration*, Routledge, New York.
[164] Davies, R. (2002). *Improved representations of change processes: improved theories of change*. Biennial Conference of the European Evaluation Society, Seville.
[165] Rogers, E. (1962). *Diffusion of Innovations*. New York, the Free Press.
[166] Cole, G.E. (1999) Advancing the development and application of theory-based evaluation in the practice of public health, *American Journal of Evaluation*, September 1999, vol. 20, no.3, p 453 – 470.
[167] An 'interpretist' epistemology of social change can be contrasted with a 'functionalist' epistemology since it appreciates social change from the perspective of the *actors* who are involved with/experiencing the changes. A 'functionalist' theory of change tends to focus exclusively on the *factors* of change, abstracting the human actors involved. See: at http://www.aid-it.com.au/Portals/0/Documents/070105_Aristotle%20and%20Plato%20at%20it%20again.pdf

problematic in complex social contexts and contend that insightful/context-specific information that can best be generated using qualitative/subjective methods.

- **Measurement:** most human changes are amorphous and difficult to measure in an absolute sense. There is no consensus on the units of measurement of phenomena such as 'empowerment', 'capacity' or 'wellbeing'.
- **Attribution:** programs are implemented within 'open systems'. This means that multiple factors can contribute to, and detract from, the desired social changes. In this context, it is unrealistic to expect that changes (both positive and negative) can be definitively *attributed* to program interventions. Rather, the aim is to build a plausible case that the program has made a *contribution* to the observed changes[168].
- **Diverse and changing information needs:** different stakeholders at different times require different information to meet their needs. Frequently these expectations are only articulated in retrospect making M&E planning difficult. Sometimes there is also impatience with the time-lag associated with detecting changes, especially in relation to outcomes and impact.
- **Organisational behaviour:** ensuring that staff systematically capture prescribed data and comply with agreed reporting protocols involves a complex set of variables that include (but are not limited to) motivation, incentives, knowledge/capacity and resources. For R4D, the building of a 'performance culture' will be an important element of the capacity building plan.
- **Time and resources:** rigour and comprehensiveness is constrained by the time and resources dedicated to M&E. Budget and time constraints frequently mean that rapid or minimalist methods are required to gather information.

Specific M&E challenges that are likely to face R4D include:

- **Geographic distribution:** performance data for the program will be required from diverse locations around the country—from places that are typically weak in terms of information communication technology (ICT) infrastructure.
- **Capacity limitations:** program activities will engage with a wide array of partners and beneficiaries; ranging from local community actors to Government ministers. There are well document capacity limitations in Timor Leste owing to the complex geopolitical history.
- **Causality:** the program will engage in specific institutional strengthening activities within MoI, and will anticipate that this will contribute to wider social and economic benefits at household and community level. The long causal linkages could be challenging to detect.

M&E Principles

Key principles that will guide the M&E work for R4D include:

- **Appropriate:** the M&E arrangements should balance a tension between the need for simplicity and the need for comprehensiveness/rigor. M&E processes should be simple enough so that they do not consume disproportionate resources or impose undue work on program stakeholders; but they should be sufficiently sophisticated so as to provide meaningful information that is accurate and has integrity.
- **Mainstreamed:** in accord with global aid effectiveness agreements and the principles of partnership, M&E processes should be developed in consultation with MoI stakeholders and supported with sufficient capacity building resources to enable the establishment of a KM Unit to conduct M&E work on a sustainable basis.
- **Communicated:** resources invested in M&E are squandered if findings are not communicated effectively and used for continuous improvement. Recognising the truism 'information is power', an appropriate communication strategy will be designed and resourced so that M&E data can be a force for desirable change. M&E communication should consider the audience, format and timelines of dissemination processes.

[168] Mayne, J. (1999) *Addressing attribution through contribution analysis: using performance measures sensibly*, Discussion Paper, Office of the Auditor General of Canada, Ottawa

Annex 14: Tentative Overall Work Plan

	KEY ACTIVITIES	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	**Program establishment**																
	Staff recruitment and mobilization																
	Office establishment																
	Procurement vehicles and equipment																
2	**Capacity development activities**																
	Capacity needs assessment																
	Capacity Development Framework		Finalization			Implementation											
3	**Development of strategies and plans**																
	Environment safeguards framework	Finalization				Implementation											
	Social safeguards framework		Finali			Implementation											
	M&E framework	Finalization				Implementation											
	Rural Roads Master Plan		Development			Application and up-dating of rural roads master plan											
	Preparation of Annual Work Plans	Year 1			Year 2				Year 3				Year 4				
4	**Development of tools, systems,**																
	Road works selection criteria																
	Construction standards and specifications																
	Procurement and contracting																
	MIS and GIS																
5	**Rural road work activities**																
	Selection of road works and budgeting	Year 1		For year 2			For year 3				For year 4						
	Technical surveys, designs, cost-estimates	Year 1	Year 2			Year 3			Year 4								
	Tendering and contract awarding		Year 1		For year 2				For year 3				For year 4				
	Implementation and quality control																
	TA support for implementation of works																
6	**Policy dialogue**																
	Communication & KM operational plan		Develop	Implementation													
	Policy dialogue and coordination/liaison																

Annex 15: ILO Procedures for Appraisal, Approval, Implementation, M&E and Backstopping

Appraisal: The ILO country office, in collaboration with ILO technical units at the regional and/or HQ levels, is responsible for preparing project proposals. *PARDEV* at ILO Geneva manages the overall process of appraisal of project proposals. During the appraisal, the proposed project design and formulation are analytically reviewed. This ensures that projects are of a high design and technical standard, and are consistent with ILO objectives and priorities, DWCPs, and donor criteria. The person proposing the project (project originator) carries out an initial quality control of the proposal, using the Appraisal checklist. The technical unit at ILO H.Q. (*EMP/INVEST*) is responsible for determining the technical feasibility and technical soundness of the proposal. Once this has been done, the proposal is submitted to *PARDEV* for final appraisal. Once PARDEV has received a proposal for appraisal, the appraisal is normally concluded within 5-7 working days.

Approval: In the approval process, the proposal is officially endorsed by *PARDEV*. A proposal is officially approved when funding is secured from a donor. The final stage of the approval process is when the funds are received from the donor and the project budget is activated in the ILO financial system (IRIS-Integrated Resources Information System) by the ILO H.Q. *BUD/CT* unit.

Implementation: Technical cooperation projects can be centralized or decentralized. Centralized projects are under the management of the responsible technical units. Decentralized projects are under the responsibility of either the ILO regional, sub-regional, or country offices. Each project is assigned an ILO Responsible Official, who is the head of the office in charge of the project. The ILO Responsible Official has the overall responsibility to ensure overall achievement of the project as per the Project Document and in accordance with ILO rules and regulations governing project implementation. Project implementation starts when the project has been approved and the budget activated, and ends when the project is financially closed.

Pre-implementation is the first activity under the implementation of a project and during this period accountability, management and governance structures of the project are set, both inside and outside the ILO, the Team Leader (or Chief Technical Advisor) is appointed, office systems for finance and administration are being set-up, and communications with ILO units and national constituents and partners are being established. the TL/CTA sets up and services the required governance structure, as outlined in the project document, shares monitoring and evaluation plans, progress reports, general information on project implementation, evaluations and events, and consults with the stakeholders. The ILO country office, comprising of various functional units with a clear segregation of duties, where the project is located, is responsible for the provision of programming and administrative backstopping services to the project as well as monitoring and evaluating project implementation.

Evaluation: Project evaluation is to be initiated by the ILO Country Office in coordination with the project and the ILO Evaluation unit at the regional and HQ levels. During the evaluation an assessment is made of the relevance and strategic fit of the project, the validity of the design, the progress of the project and its effectiveness and efficiency of resource use, the effectiveness of the management arrangements, and impact orientation and sustainability of a project. The purpose of the evaluation is to provide accountability to ILO's donors and to the ILO Governing Body. The ILO evaluation manager, who has no prior links to the project, ensures that evaluations are carried out in accordance with ILO policies and take place in a timely manner. In the case of independent evaluations he/she drafts the TOR, selects the evaluation consultant and circulates the draft and final evaluation report.

For the mid-term and final evaluation the ILO will deploy appropriately qualified independent evaluators. AusAID, the R4D PSC and the GoTL will have the opportunity to contribute to the development of the TOR for the evaluation mission and to participate in the evaluations.

The responsible ILO evaluation focal person at the regional level approves the TOR and the choice of the external evaluator for independent evaluations, and reviews and forwards the final evaluation report to the ILO H.Q. Evaluation Unit (*EVAL*) for approval. The ILO TL, ILO responsible official and other project back-stoppers provide appropriate technical and administrative support during the evaluation and are responsible for follow-up action. *EVAL* has the overall responsibility to ensure the quality and integrity of

the evaluation functions in the ILO and, together with *PARDEV*, oversees the adherence to the evaluation schedule. Once the evaluation report has been approved by *EVAL*, the evaluation manager submits it to all stakeholders including *PARDEV*, who forwards it to the donor.

Clearances, Financial and Administrative Support, and Compliance with Contractual Arrangements: The ILO HQ Units *FINANCE, Procurement* and *HRD* provide appropriate clearances and administrative and financial support, as necessary. *PARDEV* provides support and oversees compliance with ILO standards and donor contractual arrangements and obligations. Other support units provide guidance and support as necessary.

Technical Backstopping and Support: Technical backstopping units of the ILO provide technical support, oversee the consistency of project implementation with ILO technical approaches and communicate with the responsible ILO responsible official. For R4D, technical backstopping will be provided by the ILO Employment-Intensive Investment Program *(EIIP*) of the EMP/INVEST unit at ILO H.Q and *ASIST-AP*[169] of the ILO Regional Office for Asia and the Pacific (ROAP) in Bangkok. In addition, relevant ILO HQ units will provide backstopping support as and when required.

[169] *ASIST-AP* consists of a number of technical specialists based in Bangkok. Their area of expertise includes local resource-based technology, small-contractor development, rural road maintenance and infrastructure planning, impact evaluation and socio-economics

Annex 16: Summary Assessments by IMF and AusAID of GoTL's PFM system

A: IMF: Democratic Republic of Timor-Leste Public: Financial Management—Performance Report August 2010.

The assessment focuses on the PFM performance over the period 2007-2010. Substantial weaknesses in the PFM system remain. The relative strengths of the MoF are diminished by gaps in the PFM system elsewhere. An independent, external auditor is missing, internal audit is almost non-existent, the budget coverage is incomplete, and budget planning and implementation capacity in line ministries are still weak. There has been some slippage in performance also, for example on orderliness of the budget process, development of sectoral investment strategies, multiyear budgeting, and procurement. The dependence of the PFM system on foreign international experts is still large, and issues of integrity in procurement and tax administration remain a concern with regard to the overall effectiveness of the public administration.

The GoTL budget is not a good predictor of aggregate expenditure outturn. This is caused on the one hand by repeated and large supplementary budgets, on the other hand by substantial under-execution of the budget. Large supplementaries should not be a recurring feature of PFM systems as they have a weaker expenditure impact than thoroughly planned budgets because expenditure plans are not well developed. They also detract MoF and line ministry staff from focusing on the effective implementation of the regular budget. If supplementaries are the norm, budgets tend to leave out essential spending and become less credible, because the expectation is that a supplementary will address additional spending needs.

The linkage between policy objectives and budget is weak as a program classification exists, but is not well linked to line ministry policies; sector investments programs are no longer developed. The few that still exist have weak linkages to future budget envelopes. More detailed sectoral planning at the line ministry level is required. On the basis of national and sectoral planning the prime minister's office, MoF and line ministries could develop over the medium-term a multiyear public investment plan of priority and much better-developed capital projects.

The budget calendar does not allow line ministries enough time for preparation of investment projects. Line ministries only have two weeks to prepare their submissions for capital expenditure, and four weeks for their recurrent budget proposal. As no ceilings are set for line ministry capital expenditure in the budget circular, submissions are much too high and poorly developed. Project proposals lack projections of the recurrent cost implication for multiple years for maintenance and other recurrent expenditure items. These cost items are part of appropriate costing of public investment. The present practice of focusing strongly on new investment could lead to rapid deterioration of the public capital stock in the coming years. Given the already high pressures on the recurrent budget, maintenance budgets should be increased now.

The MoF lacks the time and capacity for adequate review of rationale, costing, and impact of public investment. The MoF, perhaps together with the new planning agency under the prime minister's office, should be allotted more time to review investment proposals on alignment with government priorities, appropriate costing and, for larger investments use of cost-benefit analysis (possibly on an outsourced basis) should be used to analyze expected societal benefits.

Macroeconomic projections are not extended to the medium term and there is no medium-term fiscal framework that could act as frame for medium-term expenditure plans. There are incremental estimates of recurrent budget expenditure, but these do not mean much if they are not aligned with growth and inflation estimates and the cost drivers of government policies.

Budget execution has been further enhanced recently by a very flexible, but perhaps too flexible, new virement framework. The new framework basically allows virement[170] over all institutional budget entities within line ministries, with some limitations of virement over the four major economic

[170] An administrative transfer of funds from one part of a budget to another

expenditure categories in line ministries. The question arises if the new framework will not lead to less disciplined budget preparation, and less policy control of the legislature over the expenditure direction of the budget.

Procurement has been in state of flux for many years. While considerable capacity has been built both in MoF and in line ministries, the new institutional setting at the vice prime minister's office bears new challenges for coordination, supervision, and implementation. The extent of the use of competitive bidding as standard procurement instrument is not measured. Counterparts indicate that less competitive instruments, such as single sourcing and use of quotations, are becoming more prevalent, and are often legitimized by ad hoc decree legislation. Moreover the use of exceptions to the legal regime is reportedly not always well argued. The appeals regime misses an independent arbiter.

Further strengthening of the reporting functionality of the Integrated Financial Management Information System (IFMIS) system (FreeBalance) should be pursued. Payroll integrity remains a concern, as does the effectiveness of internal controls at the line ministry level. System integrity at the treasury level is high, but uncertainty on what and when data is inputted by line ministries provides risk to accounting and payment processes.

Internal and external audit form the largest gaps in the present PFM system. The choice to have an external commercial auditor perform a financial audit of government accounts has been a very good one. However, the present external audit has serious limitations as it hardly look at the processes in line ministries. Also, the present audit is no substitute for a truly independent audit process as foreseen in the Constitution. Internal audit processes, similarly, have hardly been set up. Internal audit (PI-21) scores the lowest score possible. In the next phase of PFM reform capacity building in audit should definitely be an important component. MoF would be well-advised to lead the internal audit development process, and have cross-ministry responsibility for work programs, standards and capacity building.

B: AusAID: Timor Leste Water and Sanitation Sector Financial Management Analysis, Final Report, May 2011.

The analysis presents the findings of an initial financial management analysis of PFM systems impacting on the delivery of water and sanitation services to rural areas within Timor Leste. The principle bottlenecks identified as operating *within* MoI, and in particular the National Directorate for Water and Sanitation (DNSAS), are:

- Despite the best efforts of the BESIK program the policy frameworks for national water supply and sanitation services have not yet been submitted to or endorsed by the GoTL.
- Earlier intentions to prepare a medium-term expenditure framework for the RWASH sector appear to have fallen by the wayside. This is a major impediment to policy dialogue regarding objectives for the RWASH sector and to closer alignment of GoTL and Australian funding inputs.
- Processes within MoI for annual allocation to individual Directorates of the Ministry-wide recurrent budget expenditure envelopes issued by the MoF merit closer examination.
- Procedures for the commitment, payment and acquittal of expenditures are highly cumbersome.
- Procedures for the recording and reporting of DNSAS expenditures and their reconciliation with FreeBalance merit further examination.
- District Managers within DNSAS have virtually no control over their budgets, hence virtually any accountability for budget execution at District level.
- Logistical arrangements for the storage and delivery of equipment to the Districts appear haphazard.
- There is a range of inefficiencies associated with the management of cash advances made to District Managers.
- Sub-District Facilitators in particular appear to be substantially under-resourced to perform their functions.
- There is no internal audit function within MoI.

When viewed individually some of these weaknesses may appear relatively minor in terms of their potential impact on the quality of expenditure on water and sanitation services. In combination, however, and when compounded by weaknesses in Government-wide PFM systems, their impact on public expenditure quality is almost certainly substantial.

The report has formulated a number of recommendations to address above weaknesses:

1. Guiding principles for future action:
    - Action should target systems improvements that are within the power of MoI to directly influence and implement, albeit in concert with other key GoTL agencies, especially MoF;
    - Within MoI, action should target PFM-related systems improvements at the District and community levels in particular;
    - Design of any successor to the BESIK program should place a high priority on Australian funding support for operation and maintenance of rural water supply facilities and, within this, a high priority on PFM-related actions to strengthen GoTL systems for the funding and delivery of O&M services

Proposed action priorities within MoI/DNSAS to address PFM-related bottlenecks are identified at three levels, the National, District and Community levels.

At National level action priorities are:

- Medium-term and annual budgeting.
- Financial management information systems.
- Expenditure commitment and disbursement processes.
- Logistics.
- Clarification of O&M funding responsibilities

At District level action priorities are:

- Improved sizing and allocation of District operating budgets.
- Strengthened procurement processes at District level.
- Better management of imprest accounts.
- Piloting and cautious implementation of devolved financial management and procurement responsibilities.
- Training to support all the above.

At Community level action priorities are:

- Consolidate and extend PFM-related actions in train.
- Develop and implement action to apply an agreed policy on user charging.
- Trial alternative delivery models for O&M appropriate to a range of community circumstances.

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Annex 17: Indicative Procurement Plan

(For Procurement under the Agreement between AusAID and ILO for R4D)

I GOODS AND WORKS AND NON-CONSULTING SERVICES

1. Prior ILO *PROCUREMENT* Review Threshold:

	Procurement Method[171]	Prior Review Threshold (US$)	Comments
1.	OIC[172] or LIC[173] (Goods)	> US$ 100,000	
2.	Local Procurement (Goods)	> US$ 30,000-US$ 99,999	Preference may be given to procurement from local sources.
3.	Limited Local Procurement (Works)	> US$ 30,000	N.A: Contracting for works will be done through local contractors pre-qualified to bid.

2. **Prequalification (if applicable):** Bidders for works (i.e. local contractors) shall be pre-qualified in accordance with the pre-qualification procedures being applied in the current TIM-Works project
3. **Additional special procurement arrangements:** For specialized works Sole Sourcing may be considered.
4. **Reference to specific Project Operational/Procurement Manual:** See indicative annual disbursement plan. A detailed operational procurement plan will be prepared during the inception phase of R4D.
5. **Procurement Activities with Methods and Time Schedule:**

1	2	3	4	5	6	7	8	9	10
Ref N°	**Contract (description)**	**Estimated cost (in US$)**	**Number of contracts**	**Procurement Method**	**Prequali-fication (yes/no)**	**Domestic Preference (yes/no)**	**Review By ILO *PROCUREMENT* (Prior/Post)**	**Expected Bid-Opening Date**	**Comments**
1	Works contracts: sub-projects to contractors	14,400,000	Approx. 80-100	Limited Local Procurement – Invitation to Bid (ITB)	yes	yes	Prior (≥ US$ 30,000)	Various	
2	Construction equipment	500,000	Multiple	OIC, LIC, or Local Procurement – Request for Quotation or ITB	No	Yes	Prior (≥ US$ 30,000)	Various	
3	Office and Training equipment	100,000	Multiple	Local Procurement – Request for Quotation or ITB	No	Yes	Post	Various	Preference will be given to local suppliers, to the extent feasible.

[171] ILO procurement terminologies apply
[172] Open International Competition (OIC)
[173] Limited International Competition (LIC)

1	2	3	4	5	6	7	8	9	10
Ref N°	**Contract (description)**	**Estimated cost (in US$)**	**Number of contracts**	**Procurement Method**	**Prequali-fication (yes/no)**	**Domes tic Prefer ence (yes/no)**	**Review By ILO *PROCUREMENT* (Prior/Post)**	**Expected Bid-Opening Date**	**Comments**
4	Vehicles and motorbikes	500,000	Multiple	OIC or LIC	No	Yes	Prior		Procurement will be done following international competitive bidding process
5	O&M Office/Equipment	330,000	Multiple	Local Procurement	No	Yes	Post	Various	Preference will be given to local suppliers to the extent feasible.
6	Travels – flight tickets	125,000	Multiple	Local Procurement	No	Yes	Post		

II SELECTION OF CONSULTANTS

1. Prior ILO Review Threshold: Selection decisions subject to Prior Review by the ILO as per the ILO's rules for the procurement of services.

	Selection Method	Prior ILO Review Threshold	Comments
1.	Competitive Methods (Firms)	> US$20,000	
2.	Single purchases (Firms)	> US$20,000	
3	Recurrent purchases	> US$20,000	
4	Individual consultants		Note: Services provided by individual consultant are delivered through External Collaborator Contracts. These are outside the responsibility of ILO's PROCUREMENT. They fall under the Human Resources department. Selection of consultants is made on the basis of competitive price and technical qualification. Daily consultancy rates of more than $ 400/day are subject to approval of the Regional Office for Asia and the Pacific.

2. Any Other Special Selection Arrangements: No

3. Consultancy Assignments with Selection Methods and Time Schedule – Services provided by individuals are not under the responsibility of ILO HR and consultants are selected through Local Procurement.

1	2	3	4	5	6	7	8
No.	**Description of Assignment**	**Estimated Cost**	**No of Contracts**	**Selection Method**	**ILO Review (Prior / Post)**	**Expected Proposal Submission**	**Comments**
1	International Consultants	400,000	Multiple	Competitive bidding	>US$ 400/day prior	Various	
2	National Consultants	40,000	Multiple	Competitive bidding	>US$400/day prior	Various	
3	Evaluation	200,000	2	Competitive bidding	> US$ 20,000 (firms) or >US$ 400/day prior	Depending on starting data R4D	

III CAPACITY BUILDING ACTIVITIES WITH TIME SCHEDULE

1. Capacity Building Activities with time schedule

	Expected outcome / Activity Description	Estimated Cost	Selection Method	Estimated Duration	Start Date	Comments
1	Study tours and external training for Government staff	185,000	Single purchase, request for proposals and local procurement – for goods and services related to training and study tour activities	Various (See annual disbursement plan)	Various (See annual disbursement plan)	Study tour and training activities are organized by ILO entities or the ILO Turin International Training Centre.
2	Seminars and other internal training for Government staff	160,000	Single purchase, request for proposals and local procurement – for goods and services related to training and study tour activities	Various (See annual disbursement plan)	Various (See annual disbursement plan)	Study tour and training activities are organized by ILO entities or the ILO Turin International Training Centre.

Annex 18: Indicative Annual Disbursement Plan

PROPOSED AusAID BUDGET FOR R4D	Year 1 US$	Year 2 US$	Year 3 US$	Year 4 US$	Total US$
International Experts and Consultants	1,992,000	2,158,000	1,936,000	1,140,000	7,226,000
Support Staff	138,000	161,400	161,400	161,400	622,200
Local Travel and Allowances	60,000	60,000	50,000	50,000	220,000
Missions	100,000	100,000	180,000	180,000	560,000
National Staff and Consultants	160,000	10,000	10,000	10,000	190,000
SUB-TOTAL PERSONNEL	2,450,000	2,489,400	2,337,400	1,541,400	8,818,200
Sub-contracts	2,835,000	4,999,000	3,624,000	2,915,000	14,373,000
Fellowships	30,000	30,000	30,000	0	90,000
Training and Workshops	50,000	75,000	75,000	70,000	270,000
Equipment	610,000	360,000	35,000	10,000	1,015,000
Operations and Maintenance	110,000	115,000	120,000	124,631	469,631
Sundries	125,000	140,000	140,000	139,333	544,333
SUB-TOTAL	6,210,000	8,208,400	6,361,400	4,800,364	25,580,164
Program Support Cost	807,300	1,067,092	826,982	624,047	3,325,421
Provision for Cost Increase	0	463,775	359,419	271,221	1,094,414
Total Proposed AusAID Budget	**7,017,300**	**9,739,267**	**7,547,801**	**5,695,632**	**30,000,000**
RECOMMENDED GoTL CONTRIBUTION TO RURAL ROAD WORKS SUPPORTED BY R4D	Year 1 US$	Year 2 US$	Year 3 US$	Year 4 US$	Total US$
Sub-contracts Works	1,900,000	3,066,000	5,548,000	8,080,000	18,594,000
Staffing inputs	232,800	580,800	580,800	580,800	1,975,200
Total Recommended GoTL Contribution	**2,132,800**	**3,646,800**	**6,128,800**	**8,660,800**	**20,569,200**
TOTAL BUDGET PROPOSED FOR R4D (AusAID + GoTL)	Year 1 US$	Year 2 US$	Year 3 US$	Year 4 US$	Total US$
Sub-contracts Works	4,360,000	7,690,000	8,922,000	10,820,000	31,792,000
Staff, Equipment, Ops, Training, etc.	4,790,100	5,696,067	4,754,601	3,536,432	18,777,200
GRAND TOTAL R4D	**9,150,100**	**13,386,067**	**13,676,601**	**14,356,432**	**50,569,200**

Annex 19: Governing ILO Financial Management Procedures

The systems and procedures that will be established by the ILO for financial management will set, manage and control:

- Finance and accounting (scheduling of commitments against obligations, dates, financial clearances, actual expenditures, etc.);
- Equipment reception, inventories and disposal;
- Personnel and other confidential records concerning the administration of project personnel, office administration records and floats.

Elements covered under the financial management systems and procedures relate to budget formulation and approval, planning and incurring expenditures, reporting and control, budget revisions, and financial completion and closure. Specific and prescribed formats for the presentation/calculation of budgets are being used. Details of the budget formats are covered in section III of the ILO *Technical Cooperation Budget Preparation Procedures*. In the budget preparation internal validation procedures are used to ensure that the appropriate structure is being used.

To ensure that necessary controls are in place regarding the preparing, checking and approval of the budget, internal ILO duties are separated. The TL/CTA prepares the draft budget and this draft budget is checked by the appropriate administrative and finance officer before being submitted to *PARDEV* and/or *BUD/CT*.

The planning and monitoring of financial resources is done by the TL/CTA by tracking commitments of finances against allocations, dates and clearances obtained. These records will be compared with official reports from the ILO financial systems. In case of any major discrepancies, these must be clarified with the ILO responsible official and with ILO H.Q. *BUD/FIN*.

The disbursement of funds required for the implementation of project activities involve administrative procedures to request for the approval of expenditures. Financial clearances that are required will be requested by the ILO TL to the responsible official to initiate the process of creating obligations and issuing the appropriate expenditure authorization against the project budget. The rules governing the different authorizations and clearances, and the financial system that is used, are described in detail in chapter 9 of the *ILO Technical Cooperation Manual*. The ILO *Integrated Resource Information System (IRIS)* is a main tool used by the ILO for financial management. The ILO *Management and Leadership Development Program Module 302* contains general information on budget and financial management.

Project expenditures are made against specific accounting codes, which incorporate identifiers of source of funds and specific budget lines and object of expenditure codes. Their structure is shown in the ILO *Technical Cooperation Budget Preparation Procedures*. A system of external payment authorizations (EPA) is used for the authorization by the TL/CTA of making disbursement from the project imprest account.

To ensure an uninterrupted cash flow and operations of the project, a petty cash and imprest account will be established. The petty cash and imprest account will be operated by the TL/CTA. The petty cash will be used to pay for local miscellaneous expenditures. The TL/CTA is responsible for the operation and custody of the petty cash. Details of the operation of the imprest account are governed by the *Finance and Procurement procedures*, as explained in chapter 9 of the ILO *Technical Cooperation Manual*. The TL/CTA is responsible for the operation of the imprest account. A trained administrator manages the account. ILO *TREASURER/COMPT* of ILO H.Q. needs to approve requests for opening an imprest account. At least two signatories have to sign for an imprest account that is opened with a local bank.

In case a budget revision is requested because of the need for a project time extension, donor approval is requested through *PARDEV*. If required, such a request (and accompanied with an appropriate justification) will be made at least three months before the originally scheduled end of the project. Budget revision requests that involve budget line modifications to the originally approved budget at start-up or final budget revisions involving budget changes at the end of the project have to be submitted to *BUD/CT*

through *PARDEV*. *PARDEV* is responsible for obtaining donor approval, as necessary, and clears the request accordingly before it is submitted to *BUD/CT*.

To ensure adequate and regular internal communication between the involved and responsible ILO officials and units, a financial reporting frequency of not less than quarterly will be maintained. Required certified financial statements and final financial statements of the project are prepared by *BUD/CT* and sent to *PARDEV* for submission to the donor. The ILO responsible official provides the financial statements to the TL/CTA for information. Any discrepancies will be reported. Financial reporting usually follows a 12-months cycle, based on a calendar year.

The initiation of the financial closure of the project is the responsibility of the ILO responsible official. He/she informs *BUD/CT* through *PARDEV* and *BUD/CT* starts the process of financial closure. *FINANCE* is responsible for preparing the final financial report for submission by *PARDEV* to the donor. *BUD/CT* is responsible for the financial closure of the project.

Annex 20: Draft Outline of R4D's Social Safeguards Framework

A Social Safeguards Framework (SSF) – including operational guidelines and procedures – will be developed for R4D during the inception phase under the responsibility of the ILO R4D Community Development / Gender Specialist. The SSF will be based on ILO's guidelines and procedures for social safeguards and that provides general policies and guidelines to protect human health, avoid conflict among community members and strengthen community social cohesiveness. Gender, child labour, disability, labour standards and occupational health and safety issues will be incorporated in the SSF, in accordance with the principles set out in the relevant ILO conventions[174] and following relevant ILO guidelines.

The SSF will also incorporate AusAID's social safeguards guidance and requirements, including those on child protection and rural road and transport accessibility for persons with a disability, and it will be aligned with the relevant GoTL directives, laws and policies. The draft SSF as presented in this Annex will be finalized during the inception of R4D under the responsibility of the ILO Community Development / Gender Specialist and in close consultation with – and with inputs from – the key stakeholders.

Once finalized, the SSF will be implemented under the responsibility of the ILO R4D Community Development / Gender Specialist for the AusAID funded road works under R4D. Through its capacity building activities, the demonstration of the implementation of the SSF, policy dialogue, information sharing and the active involvement of DRBFC counterpart staff and concerned GoTL staff at district level, R4D will encourage and promote the application of the SSF by DRBFC and District Administrations. Activities concerning the implementation of the SSF will be carried out in close co-operation with the beneficiaries, recipients and relevant GoTL stakeholders and concerned institutions. Specific activities related to the implementation of the SSF will be identified during the inception phase of R4D and dedicated budget allocations will be made accordingly.

2. Gender and other Social Safeguard Issues[175]

Timor-Leste has made progress towards gender equality and women's empowerment, especially through increases in female school enrolment, women's participation in national politics, and the passage of a law on domestic violence in 2010. Some progress has also been made in improving women's reproductive health indicators. High fertility (5.7 per woman) and maternal mortality rates (557 per 100,000 live births) however remain a cause for concern. High fertility is posing significant burdens on women's child care and household responsibilities and hindering women's engagement in economic activities

The combination of high fertility, poor infrastructure coverage, and low human resource capacity, place women – particularly rural women – in a highly vulnerable position. Following the tradition of patriarchal families, the primary role of women continues to be defined with their family and household responsibilities. Poor road infrastructure, gaps in access to clean water and sanitation, and a low rate of electrification, create significant time constraints and inhibit access to and the delivery of essential social services such as health and education. These infrastructure constraints also restrict income earning activity and create additional burdens for women in their roles as household managers and family health providers. Lack of access to banking services and credit restricts women's opportunities for saving and income-generating activities, combined with a lack of literacy and basic business skills. The lack of a firm legal framework for land registration and clear inheritance rights is also a major constraint to women's access to economic resources.

[174] Relevant ILO conventions regarding social safeguards include the following: i) Hours of Work (Industry) Convention (No.1); ii) the Weekly Rest (Industry) Convention (No.14); iii) the Forty-Hour Week Convention; iv) the Minimum Age (Industry) Conventions (No.59 and No. 138); v) the Forced Labour Convention (No. 29); vi) the Equal Remuneration Convention (No. 100); vi) the Elimination of Discrimination Convention (No. 111); vii) the Minimum Wage Convention (No. 131); viii) the Convention on the Payment of Wages (No. 95), and; ix) the Convention on Safety and Health (No. 167).

[175] This analysis draws on analysis done by the ADB, the EC-funded rural roads master plan, and analysis carried out in the course of the design of R4D by the design team. It should be noted that not all of the 2010 census data could be incorporated yet in the analysis yet and as such some of the figures as presented in the analysis may not be fully correct.

In the adult population, educational disadvantages continue to be barriers for building women's productive capacities and economic potential. Of those aged 18 and older, more than half of women (56%) had never attended school compared with 38% of men.[176] Adult illiteracy rate also remains higher for women (54%) than for men (37%)[177].

Women are only half as likely as men to be in the labour force: 73% of men (aged 15 and over) participate in the labour force compared with only 36% of women. Of those women reporting labour force participation, more than 90% are mainly engaged in agricultural work. Although women by law have equal access to work and pay, women's heavy responsibilities at home and lack of education or skills hinder women's active participation in the labour force.

Female unemployment rate is relatively low, given the prevalence of agricultural work, at 9.5% overall. Under-employment rates however are high and the resulting productivity of the labour is low. The majority of employed people are also without formal protection as self-employed or family workers, and the percentage of these workers in "vulnerable" work situations is higher for women; a 2010 survey estimated the percentage as 78% for women and 66% for men.[178] While one-third of male workers receive cash earnings for their work, only 19% of women do so and 80% of women do not receive any payment for their work.[179] Due to the prevalence of agricultural work, there is no clear association between education and rates of employment; yet women with technical education are most likely to be employed, although their total numbers are relatively small.

Women's poor human resource capacity limits their opportunities to be economically productive and empowered. This lack of economic empowerment results in women's vulnerability to gender-based family violence. In a 2009-10 survey 34.6 per cent of ever-married women (aged 15-49) reported having experienced physical or sexual violence from their spouse. Only 24 per cent of women who experienced any form of violence sought help from any source and, of these, only 4 per cent sought help from the police.[180] Domestic violence is the most common form of gender-based violence in Timor-Leste. Domestic violence had been regarded culturally acceptable and women's lack of economic empowerment contributes to their vulnerability. In 2009, more than two-thirds of gender-based violence cases reported to the police were related to domestic violence, with many more cases believed to be unreported.

During the design mission a Focus Group Discussion (FGD) with 6 women (aged 35-55) working on a rural roads rehabilitation scheme of TIM-Works in Viqueque district was held. Five of these women were aged above 40. They are able to work since there sons/daughter are grown up and they can take time to come to work. The women said that their main motivation to work on the scheme is that they felt that having good roads will lead to better access to basic health and education services such as schools and hospitals, especially for pregnant women. All the women are employed as unskilled workers and they receive a 3 USD/day salary as per government schemes. This salary is used for basic household needs such as buying foods, schools materials, etc. None of the women were able to save some money to reinvest in other business activities.

The travel time to reach the work site was considered a constraint by the women. One woman has to walk 5 hours to reach the workplace, while for the others it takes 1 to 3 hours. Some of them even went back home for lunch despite the time that it takes. Apart from the transportation issue, the women mentioned that other issues related to the work are the need for toilet facilities, drinking water, training and the provision of protective gear.

The interviewed women did not report that there were any tensions or conflict between men and women arising from the direct income provided by the TIM-Works project. This finding is in line with

[176] Ministry of Finance and World Bank. 2008. *Timor-Leste: Poverty in a Young Nation.* Washington D.C.
[177] ADB Country Partnership Strategy Timor-Leste 2011-2015
[178] National Statistics Directorate and Secretary of State for Vocational Training and Employment. 2010. *Timor-Leste Labour Force Survey 2010*. Dili.
[179] National Statistics Directorate and ICF Macro. 2010. *Timor-Leste Demographic and Health Survey 2009-10*, Dili.
[180] *Demographic and Health Survey 2009-10.*

experiences of the TIM-Works project staff who have not experienced such tensions during the 3 years that TIM-Works has been implemented. Such tensions were also not reported during interviews with women workers at the time of the mid-term evaluation of the TIM-Works project. It is therefore not considered likely that such tensions will arise in R4D.

Experiences with TIM-Works also show that Sucos do not allow workers from outside the administrative boundaries of their Socu to be employed on road works that take place within their Suco. As such it is therefore not expected that there will be a negative gender impacts of road works arising from the presence of outside workers in or near communities.

The prevalence of HIV/AIDS in Timor-Leste is estimated to be low, but a limited surveillance system and inadequate testing suggest the possibility of much higher incidence. High prevalence of such proxy indicators as sexually transmitted infections (1.6 per 1,000) and tuberculosis (713 per 100,000) plus many at-risk groups (e.g., commercial sex workers, truck drivers, drug users, and migrant labourers) make Timor-Leste increasingly vulnerable. Awareness about HIV/AIDS is particularly low in rural areas. The 2009-2010 Demographic and Health Survey showed that in the age group 15-49 years 70% of women and 85% of men in urban areas had heard about AIDS. In rural areas – for the same age group – only 34% of the women and 52% of the men had heard about AIDS.[181]

As the main focus of R4D is on the rehabilitation of existing rural roads, with civil works being undertaken within the right-of-way of existing road alignments, only minimal and insignificant temporary impact on land or resettlement can be expected. R4D also has the provision for the construction of up to 40 km of new rural roads (to be financed with GoTL funds). In these cases there may be significant impacts on land or resettlement. Possible impacts related to the impact of R4D on land or resettlement will be assessed during the screening of the social impacts at sub-project level.

In Timor-Leste, ethnic association is related to language. Seventeen languages are spoken across the country. A social assessment concluded in the preparation of the ADB-funded *Road Network Development Sector Project* found that no significant differences in cultural and social identity exist among the people who speak different languages, and that no ethnic minority groups are expected to be adversely affected by the project. Experiences with the TIM-Works project regarding possible adverse effects on minority groups are similar and it is therefore not expected that there will be adverse impacts of R4D on ethnic minorities.

According to the 2004 Census 15% of households had a member with disabilities. During the 2010 Census information was collected about the categories of disability in walking, self-care, seeing, hearing/speaking, mental condition and developmental delay, measures of extent and causes. It found there are 48,243 people with disabilities (or 4.6% of the population, 54% of who are male and 47% are female). A recent WHO/World Bank estimate of the global prevalence of disability is 15% of the population implies that in Timor-Leste there are around 165,000 people with disabilities. These national level data may however underestimate the true prevalence of disability.

3. Legal framework regarding the protection of social safeguards

Timor-Leste has ratified the United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 2003 and its first compliance report was presented in 2009. The overall policy and institutional environment has been modified to help ensure public sector responsiveness to women's rights and needs. Yet, substantial gender barriers persist in women's access to resources and opportunities.

[181] *Demographic and Health Survey 2009-10*.

The Secretariat of State for Promotion of Equality was established in 2008 as a central government agency that provides a framework for promoting gender equality and women's rights.[182] The secretariat has prepared a five-year strategic plan (2010-2015), focusing on advocacy, drafting and implementing key policies and programs on gender issues.

The Organic Law of the Secretariat of State for Promotion of Equality, approved in 2008, gave the secretariat a wider mandate to promote gender awareness and gender mainstreaming in key priority sectors. Gender focal points were established in several ministries and at the district level. Gender mainstreaming pilot programs were introduced in the agriculture, education, health, and justice sectors. Inter-ministerial working groups and coordination mechanisms have also been established to work with civil society, media, women's parliamentary groups, and development partners. Nonetheless the secretariat still lacks implementation and technical capacity to fully support its initiatives

Extensive efforts have been made to institute formal laws and policies to support gender equality. The law on political parties encourages the participation of women through quotas in Suco (village) Councils and National Parliament. Women currently make up 28% of Suco Councils and 29% of National Parliament members, which represents one of the highest rates of representation in the region. Key ministerial positions are also held by women, including the Ministries of Finance, Justice, and Social Solidarity. Yet, only 2.5% of Suco chiefs are women, reflecting an ongoing need to promote women's representation in local decision-making positions. Various gender-related trainings have been implemented with support from development partners.[183] The Gender Resource Centre at the National Parliament has helped build awareness on gender-related issues among parliamentarians

A law on domestic violence was first presented to the Government in 2005 and was finally passed by the National Parliament in March 2010. Under the law, domestic violence has been classified as a public crime, and survivors will have access to emergency medical help, shelter, and other support services. The law also requires education on domestic violence to be included in the school curriculum.

The 2003 Immigration and Asylum Act prohibits trafficking of women and children for prostitution and forced labour. The Penal Code was passed in March 2009 and criminalizes most sexual crimes. A new draft civil code has recently been promulgated, and sections of this code address marital property and inheritance rights. Enforcement of these legislative reforms, however, is likely to remain challenging because of Timor-Leste's overburdened courts.

The Government has a National Strategic Plan for HIV/AIDS and Sexually Transmitted Infections. The Ministry of Health is responsible for implementing the Strategic Plan but lacks resources to fulfil this task. It is therefore important for line-ministries to take primary responsibility for mitigating HIV/AIDS risks in their projects. Field surveys undertaken for the ADB Road Sector Improvement Project showed an alarmingly high level of ignorance about HIV/AIDS risks and prevention within local populations, passengers, and vehicle operators. It is likely that HIV/AIDS ignorance and risk levels are considerably higher in Timor-Leste than officially acknowledged.

4. Effect of improved rural roads access on the position of women:

Improved rural road access will improve access of rural people to economic and social facilities and services like local markets, banks, schools and health care. Improved and sustained (through maintenance) rural road access is a key trigger for local social and economic development (including sustainable job creation), thereby contributing to poverty alleviation.

Better access to health facilities will improve the health of the people, in particular women and children. The people of Timor-Leste are vulnerable to respiratory diseases like diarrhoea, malaria, dengue fever, tuberculosis, leprosy, and other treatable diseases. Improved access to health-care facilities will encourage

[182] The Secretariat of State for Promotion of Equality builds on the work of its predecessor, the Office for the promotion of Equality, which was an advisory body reporting directly to the Prime Minister.
[183] UN-Women and UNDP provide support to increase female participation in governance.

people to seek medical assistance. Better roads will also ease travel to schools, and help strengthen the school system by reducing teacher absentee rates and enabling school to attract more qualified teachers.

In Timor-Leste, socio-cultural factors contribute to low enrolment and high dropout rates among female students, leading to high illiteracy among adult females, high female unemployment, sex segregation in the paid labour force, an emerging gender gap in wages, high maternal mortality and domestic violence. Gender-specific benefits of R4D for women will be in particular (i) improved access to health-care facilities; (ii) improved access to schools, social services, and other key facilities; and (iii) targeted employment opportunities for female labourers, such as bio-engineering works and routine maintenance works. Other expected gender-specific benefits of improved rural road access include increased market sales of agricultural and livestock products.

5. Implementation of Social Safeguards

Improved rural road access to markets for local products and reduced transport costs of externally sourced agricultural inputs should stimulate profitable expansion of local production if the roads are maintained in their improved condition. The involvement of local communities in all aspects of road improvement from planning through construction and maintenance would generate a greater sense of local ownership of the rural roads. This is also expected to lead to greater local concern and responsibility by the local communities for their maintenance. Studies have found that women have an important role in the process of road planning and should be central to the consultation process because of their greater understanding of household issues than men.

The R4D design recognizes the importance of empowering women and anticipates that road construction works will enhance the employment opportunities of men and women. To ensure that road works are implemented in a gender-sensitive way it is important that during the sub-project design and planning of the road works, women are included in the consultation process to ensure that their transport requirements are also accommodated, given the major constraint of poor rural road infrastructure on women's household responsibilities and their access to essential social services such as health and education. In a similar way it is proposed that people with a disability and their organizations are being consulted to ensure that there specific requirements and needs are being considered during the planning process.

Due to cultural norms, women are often excluded from infrastructure-related employment opportunities, limiting their participation in and benefits from development process. Lessons from prior road sector projects in Timor-Leste (including TIM-Works and ADB-supported road projects) illustrate that women can be active participants in community-based road construction and maintenance activities. Skills training, as well as health and gender awareness activities, also create opportunities for economic empowerment among women, especially poor rural women. Continued emphasis will be placed on designing infrastructure projects to ensure the promotion of gender equality, with access to employment and training.

Specific activities that will be included in the SMF include the provision of training on:

- Occupational Health & Safety (OH&S) for communities and workers to encourage the use of protective materials such as masks, etc and understand the risks related to the work;
- Technical skills training for workers (e.g. on masonry, carpentry, gabion works, setting-out construction works);
- Awareness raising training on gender equality at community and district level.
- Life skills training on road safety and primary health at community level (with at least 50% of the trainees being women).

Literacy and numeracy training for vulnerable and poor rural people at community level – with at least 50% of the trainees being women – will also be considered. To the extent possible these training activities will be linked with other projects.

As much as practically possible, R4D will actively promote an increase the number of women among the unskilled and skilled workers. Whereas R4D will adhere to the principle of 'equal job opportunities for women and men', cultural and mobility constraints may constrain the actual participation of women in the workforce.

Under the TIM-Works Project a participation rate of 30% women in the workforce has been achieved and this figure will be used as a target benchmark at the start of R4D. However, R4D will aim at an equal participation of the number of women and men (i.e. 50/50) in the workforce through specific interventions like all-inclusive communication strategies and participatory processes, the provision of transportation facilities to the work-sites, the provision of child-care facilities and the introduction of flexible working hours (using an output-based task work system as the basis for payment).

In the selection of local contractors' companies, preference will be given to companies that are being managed/directed by women and/or engage female engineers – provided that these companies are equally and sufficiently qualified when compared to companies managed by men.

Measures that can be undertaken to address gender equality issues also include the inclusion of relevant clauses and conditions in contractors' contractors regarding the recruitment of women, like the incorporation of clauses that refer to the principle of equal opportunity in access to employment opportunities and a minimum quota at the start of R4D of 30% women in the workforce.

Measures related to the organization of the work on the site will be taken to facilitate the involvement of women in the workforce. The positive experiences of TIM-Works in applying an output-based task-work system that provides flexibility to the workers (in particular for women) in terms of working hours will be used by R4D. Considering the fact that women's mobility is usually more constrained than men's, women workers will be assigned as much as possible to locations along the road side that are relatively near to their villages[184].

Adequate toilet facilities, drinking water and – as required – childcare facilities will be provided (through the inclusion in eligible items of works in the contractors' bid documents) for women to facilitate their engagement in the construction works and reduce the risk of sexual harassment

17 languages are spoken in Timor Leste by different ethnic (minority) populations. Since the language can be barriers for access to information and consultation process, R4D will address necessary actions to ensue adherence to the principle of equal access to (information about) job opportunities (e.g. by ensuring that information is available in the language understood by the different ethnic groups and by taking into account cultural aspects of road side ethnic communities in the development of community participation models for rural infrastructure works).

R4D will include activities that promote the participation of people with a disability in the workforce. Many misconceptions exists about the capability of people with disabilities to be involved in construction works and contractors are often reluctant to hire people with disabilities as they think that they will not be able to carry out as much work as able-bodied persons or will deliver work of an inferior quality. In addition, if they are employed at all, they might receive lower wages than their able-bodied colleagues. In reality, however, many of the tasks on a construction site can be carried out by people with disabilities – with the suitability of a person to be able to carry out certain tasks depending on the type and degree of his/her disability.

Given the novelty of integrating disability into the employment aspects of labour-based rural roads works in Timor-Leste, it will be important to adopt a realistic and staged approach. Consideration will be given to initially targeting particular sub-projects and contractors (informed by consultation with relevant organisations) through appropriate contract clauses and training.

[184] If this is not possible, the possibility of providing transport to and from the worksite should be considered in the design (this provision could also be incorporated as an item of work in the contractors' contracts).

Determining what work people with disabilities can do should take place by promoting discussion between contractors and any prospective employees (who have chosen to disclose a disability) about how reasonable accommodations can be made for their disability (i.e. what amendments to the working environment are necessary in order for them to perform their tasks). Reasonable accommodations would include communicating the needs of a person with a disability to other employees (where necessary) in a sensitive way that does not explicitly disclose their disability without their consent. This discussion would be as much about whether the employer can support the person with a disability, as it is the person with a disability determining whether or not they can perform the tasks.

An important step in integrating disability into R4D will be to hold consultations with relevant disability organisations before implementation and/or during the inception period. Key organisations include: Ra'es Hadomi Timor Oan (National DPO), ASSERT (which supports the National Rehabilitation Centre) and the Ministry of Social Solidarity. All are members of the Disability Working Group, which could be a streamlined mechanism for consultation. These organisations should be able to provide information on how best to engage with people with disabilities and could, for example, support both contractors and people with disabilities to make informed decisions about what sorts of work would be suitable for both parties.

R4D will also include issues related to disability that are relevant to the Program in policy dialogue, including through the Program Steering Committee. Such a policy dialogue could be an effective instrument to encourage the GoTL to develop a Decree-Law on Accessible Transport/Infrastructure as well as draft National Disability Policy, which includes accessible infrastructure.

Another issue that will be considered by R4D is the incorporation of elements in the design of the road works that facilitate access for people with disabilities. Most of these design features are often very low cost. An example of a key design element that conforms with Universal Design principles[185] is keeping rural roads free of obstacles and maintained in as accessible a state as possible. What is important is to consult with the local population about such design requirements. People with disabilities and their representatives should be consulted throughout the process of designing, operating and monitoring access to public transportation and related infrastructure. This avoids expensive mistakes.

Other design considerations to enhance access for people with disabilities could include the following[186]:

- In rural areas and especially where there are villages on either side of roads (i.e., roads passing through villages), there will usually be several established trails where common road crossings are made as a "short cut" rather than using vehicular road alignment. Consideration needs to be given as to how these "short cuts" can be better built for people with disabilities.
- Universal access requirements near services like schools, springs, health facilities, shops, markets, farms etc require specific consideration. It can be affordable and is very practical to pay particular attention to school and health centre zones in rural areas where pedestrian traffic intensifies.
- Ramps with gentle slopes across road side drains.
- Covers to span side drains for disabled access.
- Adequate provisions in the road design should be made to prevent vehicular traffic from encroaching onto footpaths and ramps or other access built for the specific purpose of disabled persons.

The promotion of road safety, including safer vehicles, safer road use and improvements to road infrastructure, is an important component of an inclusive transport strategy that conforms with Universal Design principles. Improvements in road design that can reduce disability and the loss of life that can be considered include the construction of safety/speed barriers, the improvement of intersections and the construction of pedestrian/bicyclist paths.

[185] Mobility for the Disabled Poor- Thomas Rickert. Access Exchange International September 2001.

[186] The examples given in this section of design considerations to enhance access for people disabilities is not exhaustive. Various other possible design considerations are provided in the Universal guidelines. Whether the application of specific design considerations is appropriate, depends on the local context (and constraints) and also needs to be discussed with the local communities and the people with disabilities and/or their representative organizations.

Road accidents can have a substantial impact on the community environment and may be reduced or increased as a result of road improvement projects. Measures and design alternatives, which may be considered for dealing with other environmental impacts, could also affect road safety and thus related to social safeguards. To ensure maximum safety of construction personnel and local residents measures that could be considered include:

- Ensure that all occupational health and safety requirements are in place on construction sites in work camps.
- Install lights and cautionary signs in hazardous areas.
- Include safety instructions for the construction activities in the contract documents.
- Ensure sufficient visibility along the road section according to standard specifications.

As the proposed rehabilitation and maintenance works will be carried out mainly within the width of existing road corridors[187] it is not foreseen that land acquisition will be required for rehabilitation and maintenance works. Measures to minimize the social impact of any necessary compensation of loss of crops or permanent structures due to rehabilitation works include:

- Works will be restricted to the 'right-of-way' of the existing road;
- Projected impacts and negotiate proposed measures have been discussed in advance with the affected community; work with local government officers and non-governmental organizations.
- Conduct surveys before activities commence to identify all members of affected populations.
- Identify other land-based natural resources, infrastructure, and services that will be lost to the affected community.
- Identify suitable land (if possible land having the same clan ownership) for resettlement/re-establishment of the natural resource base.

In those cases where new rural roads are constructed with GoTL funding, MoI/DRBFC will have to ensure that affected people are compensated properly – with R4D ILO staff overseeing that adequate compensation is being provided and that agreement with the affected people is reached about the compensation and resettlement. This would require MoI/DRBFC to prepare a resettlement plan which needs to comply with applicable GoTL laws and regulations. If an agreement is reached, civil works should only start after land acquisition has been completed. If however no agreement can be reached with the affected people, the sub-project should not be implemented.

AusAID's child protection policy articulates AusAID's zero tolerance approach to child abuse and child pornography. It provides a framework for managing and reducing risks of child abuse by persons engaged in delivering aid program activities. The policy's overall goal is to protect children from abuse of all kinds in the delivery of Australia's overseas aid program. The policy follows four guiding principles: 1) zero tolerance of child abuse; 2) recognition of children's interests; 3) sharing the responsibility for child protection, and; 4) use of a risk management approach.

Under the policy, AusAID is further enhancing its approach to child protection through risk assessment and risk management procedures for aid activities, clear procedures for raising concerns about child abuse, and training staff on child protection matters. In the context of R4D child protection is important as parents or guardians may bring children to work sites and this could put children at risk of injury or abuse. In line with the guiding principle of sharing responsibility for child protection, the ILO and its R4D staff will comply with AusAID's new child protection compliance standards.

During the inception period R4D will develop a strategy (as part of the SSF) on how to reduce risk to children. A possible mitigation strategy that will be looked into are ways to reduce the likelihood that

[187] It should be noted however that the legal foundation for the right-of-way (ROW) for roads has not been established in Timor Leste. When road works require additional land, the GoTL negotiates with the owners or users on a case-by case-basis. According to usual practice, when land acquisition required for project development, concerned parties under the direction of the local authorities will negotiate and reach an agreement on compensation rates, total compensation amount, and the procedures or mechanism for compensation and transfer. A preliminary draft of a new land law is currently on limited circulation within the Government.

children will be present at work sites or to ensure that appropriate and safe child care options are available. Another mitigation strategy that will be developed is to establish a child protection policy and code of conduct for R4D and to require that Program staff adhere to this code. Contractors could also be requested to sign a code of conduct relating to their child protection responsibilities but consideration would need to be given to what is practical for small Timorese contractors.

As part of establishing any policy/code of conduct for the program and for contractors, consideration would need to be given to what sort of recruitment processes can and should be applied to individuals who are likely to have contact with children, including an appropriate combination of criminal record checks, targeted interview questions and verbal referee checks.

For social safeguards activities at community level to be effective, it is important that communities are informed, trained and involved– using an inclusive approach, i.e. include women and other community groups in accordance with R4D's Social Safeguards Framework and its Gender Equality Strategy – about the planning and implementation of the works, and that a needs assessment on social safeguards issues (including gender, disability and child labour) is being conducted to understand prevailing issues at the community level. Also ensure that disturbances near living areas due to construction activities are minimized when possible.

The ILO R4D Community Development / Gender Specialist will have the overall responsibility for the design and implementation of these assessments. Implementation support will be provided by the ILO R4D District Coordinators and the district-level DRBFC Community Facilitators. It is estimated that per district 4-8 of such assessments (at Suco level) will need to be done per year. These assessments will be incorporated in the SSF. Based on such assessments, specific activities will be formulated to ensure adherence to the SSF in the planning and implementation of construction activities.

Awareness raising and training activities regarding social safeguards will form an integral part of R4D's activities at national and local level. Targeted groups for such activities include MoI/DRBFC and other government stakeholders[188], R4D staff and their counterparts, government recipients, contractors and the ultimate beneficiaries. Gender equality principles and guidelines will also be incorporated in the selection process for R4D staff to promote a gender-balanced composition of the staff and the program will also promote gender equality regarding the assignment of GoTL R4D counterpart staff. Specific responsibilities for integrating gender will be integrated in job descriptions of the Team Leader and other key staff. Activities will also be undertaken to ensure that contractors, R4D staff, GoTL counterpart staff and other parties involved in the implementation of R4D have clear standards, codes of conduct and protocols to ensure that women are protected from harassment.

It is equally important that social safeguard issues – including those on gender, child labour, decent work standards and disability – are being addressed in upstream activities, e.g. in policy dialogue, in the various coordination forums As MoI/DRBFC is the Government Executing Agency of R4D, activities that focus on building the capacity of MoI/DRBFC to mainstream gender concerns into its work will be incorporated in the SSF. To this effect – as part of R4D's capacity needs assessment activities – a rapid assessment on gender capacity of MoI and partners institutions will be conducted during the inception period.

Incorporating upstream activities not only means to aim at a balanced staff representation in key positions in the Ministry- both at national and a district level (e.g. any of the regional engineers or district coordinators are women)-, but also to encourage MoI to adopt specific gender policies (e.g. *Gender Equality Strategy/Action Plan*) to formalize its commitment to gender equality goals. This is particularly relevant considering that the Council of Ministers has passed on 24 Aug 2011 a Resolution establishing Gender Working Groups **(**GWG) in each Ministry. The GWG will be composed at national level by at least 4 directors nominated in each ministry. GWGs will also be created at the District Level. They will consist of representatives from the District Administrator's office, MED, MAF, MSS, MoE, MoH, the

[188] For example SEFOPE labour inspectors who may be included in the group of targeted trainees.

Ministry of Justice, MoI and the Police Vulnerable Persons Unit. It is also proposed to hold regular consultations with SEPI (Secretariat of State for the Promotion of Equality) of equality related issues.

6. Monitoring

To ensure the effectiveness of gender mainstreaming and the implementation of the SSF in R4D, measurable performance targets, indicators, and monitoring plans will be developed and integrated into the R4D M&E framework. Sex-disaggregated and disability-disaggregated data will be collected to monitor and evaluate the progress and performance of R4D with respect to the implementation of the SMF.

At a community level (where disability is being integrated) the collection of more detailed information on the prevalence of disability is planned for during the inception part to inform the finalization of the SSF. This data collection could be developed in consultation with the Disability Working Group and would need to develop an appropriate methodology that takes account of the difficulties in obtaining reliable data on disability. The Disability Working Group developed a set of question on disability for the census that could be adapted to this purpose. As required, the AusAID Regional Specialist, Disability Inclusive Development (Asia), will be able to assist in developing targeted needs assessments.

The development of the operational action plan under the SSF that will be prepared during the inception phase – and its subsequent implementation – is the responsibility of the ILO R4D Community Development / Gender Specialist. Field-based monitoring to ensure compliance is the primary responsibility of the District Coordinators. Additional support and spot-checking will be carried out by the R4D Community Development/Gender Specialist, in coordination with concerned local authorities.

An assessment of the performance of the implementation of the SSF will be carried out once a year by the joint AusAID/ILO Independent Monitoring Group (IMG) and the findings will be reported to the R4D PSC and will be used to modify the SMF as required

Annex 21: Draft Outline of R4D's Environmental Safeguards Framework

1. Institutional and Regulatory Aspects

This draft Environmental Safeguards Framework (ESF) is based on ILO's guidelines and procedures for environmental safeguards and provides general policies and guidelines to prevent environmental degradation as a result of either individual investments or their cumulative effects and enhance positive environmental outcomes.

The ILO requires environmental screening and environmental assessment reports (if necessary) of sub-projects to help ensure that the sub-projects are environmentally sound and sustainable, and thus improve decision making. Environmental assessment runs in parallel with the process of designing a sub-project and implementing it. The type and its detail of environmental assessment depend on the nature, scale and any potential environmental risks of the sub-project.

It will be the responsibility of R4D to support the GoTL in developing detailed environmental management procedures for this framework. An ILO R4D Environmental Specialist (one month of a consultancy input is foreseen for this purpose) will be responsible to finalize the Environmental Safeguards Framework (ESF) during the inception period.

Activities concerning environmental management will be carried out in close co-operation with relevant government agencies to ensure compliance with relevant laws, decrees, standards and procedures. GoTL's environmental review procedures, experiences gained with environmental safeguards procedures in on-going and past (rural) roads projects in Timor and ILO's and AusAID's[189] policies on environmental management will form the framework for R4D's approach to environmental screening and mitigation

The GoTL Strategic Development Plan (SDP) 2011-2030 includes the intention of better enforcement of current environmental laws and regulations and the preparation of comprehensive environmental protection and conservation legislation necessary to meet constitutional and international obligations. The SDP also mentions the importance of integrating environment and natural resource management across government and to improve institutional and staff capacity in environmental management.

The Directorate of the Environment (DoE) under the Ministry of Economy and Development's Secretary of State of the Environment has the responsibility to ensure that environmental impact assessments (EIA) or initial environmental examinations (IEE) are conducted by technical line ministries and that – depending on the outcome of such EIA's – Environmental Management Plans (EMPs) are prepared and implemented. EIA, IEE and EMP requirements are covered under the new Decree Law No. 5 / 2011 of 9 February on Environmental Licensing.

For road works, Decree Law No. 5 / 2011 stipulates that all new road construction (classified as category A sub-projects – these are sub-projects that may cause significant environmental impacts) require an Environmental Impact Assessment (EIA). For the construction of new rural roads however, only roads with a length of more than 30 km require an EIA[190].

[189] AusAID is bound as a Commonwealth (of Australia) agency to comply with the *Environment Protection and Biodiversity Conservation Act* (1999) (EPBC Act). Activities in foreign countries (and in Australia) which have significant negative environmental impacts require referral under the EPBC Act to the Department of Sustainability Environment, Water, Population and Communities (SEWPAC) for advice on appropriate environmental management.

[190] An EIA is defined as follows: *An environmental study comprising collection of data, prediction of qualitative and quantitative impacts, comparison of alternatives, evaluation of preventive, mitigation & compensatory measures,*

For the rehabilitation of existing roads (classified under the Decree as category B sub-projects – these are sub-projects that may cause environmental impacts) an IEE[191] is required. This excludes however community roads, for which no IEE requirement is stipulated in the Decree Law. At present Timor-Leste does not have clear definitions of rural roads and community roads and this is one of the issues that will need to be addressed by R4D – probably it would be most logical to do this within the context of the development of the rural roads master plan.

The supporting regulatory framework for the new Decree Law has not been completed yet and guidelines that were applicable under the old laws are still applicable. In the context of R4D, relevant guidelines are the following:

- *Guideline 1: S*tructures the EIA and EMP Reports.
- *Guideline 2:* Sets standards for mechanized sand and gravel extraction from rivers and borrow sites, which will be applicable for supply of material for road works.
- *Guideline 7:* Prescribes the preparation of an Environmental Management Plan (EMP).

2. Capacity Issues in DRBFC and DoE

Since 2008, ADB has taken several measures to strengthen the incorporation of environmental and social safeguards within DRBFC. These include strengthening relevant sections in roads design contracts concerning conducting EIAs and the development of EMPs, undertaking field trips to project sites, providing recommendations for how specific environmental/ social safeguards issues can be addressed within projects, etc.

DRBFC has expressed strong interest in creating an environmental safeguards position within DRBFC, to enable the Directorate to address safeguards in a more comprehensive manner. It appears that discussions within the MoI to request for such a position from the Public Service Commissions have commenced. Current capacities however within DRBFC to supervise whether an EIA is conducted and whether it is conducted to the required standards and to assess any EMP that has been developed, are still very weak

At present it is not usual practice for Ministries or individual Directorates (like DRBFC) to submit development proposal applications that seek DoE's advice on requirements for conducting an EIA, etc. There is no regular coordination between DoE and the technical line ministries regarding the implementation of DoE policies. Another factor that hampers the implementation of DoE's policies are DoE's cumbersome and time-consuming procedures for screening and assessment of development proposals – these have the potential to introduce large delays if introduced as a regular component of construction projects.

From discussions that the design team had with DoE it seems that environmental project issues are not always addressed. At district level the DoE District Focal Points are responsible for the implementation of Environmental Management Plans (EMPs). However, because of capacity constraints, actual monitoring and reporting is sporadic. During meetings with the district administrations of Baucau and Viqueque district, it also appeared that the district administrations are not well aware of environmental project requirements.

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formulation of environmental management and training plans & monitoring arrangements, and framing of recommendations and other components as may be prescribed.

[191] An IEE is defined as: *A preliminary review of the reasonably foreseeable qualitative & quantitative impacts of a proposed project on the environment to determine whether it is likely to cause an adverse effect for requiring the preparation of an environmental impact assessment.*

3. Environmental Issues related to Rural Road Works

The significance of environmental impacts of a proposed rural road sub-project depends on the type and scale of the intended intervention and the sensitivity of a given area to change caused by the intervention. Physical conditions such as topography, slope gradient, geological stability, rainfall and rainfall intensity play are important factors in determining sensitivity issues that can affect both the surrounding environment and road infrastructure investments. This section describes climatological and terrain conditions in general, and in Timor-Leste in particular, that are relevant with regards to the possible impacts of rural road sub-projects on the environment.

In addition, improved roads can also facilitate access to sensitive areas previously protected by no or difficult road access. These possible indirect impacts can be experienced after construction and need to be considered in the environmental assessment process.

Lands slides and erosion are one of the most common environmental impacts of road projects, resulting from interactions between water flow and soil, both of which can be disturbed by road construction. Geological instability of slopes is an important environmental sensitivity consideration for road works in Timor Leste. The country has a mountainous topography, stretching across the middle of the island from the eastern to the western tip. Timor-Leste is composed largely of limestone and other sedimentary deposits.

The island is geologically young with steep and unstable slopes and deep valleys, prone to flash floods. When roads are built in geological unstable areas with steep slopes[192], excavation works and necessary clearing of vegetation may induce erosion and slope failure, especially if drainage of the road section is poorly designed. A related impact is the loss of native vegetation and the opening of habitats to the invasion of weeds. A lack of proper road maintenance during operations aggravates environmental impacts in geological unstable zones more than in stable zones.

Timor Leste is a seismic active zone and earthquakes are frequent in Timor Leste. Nearly 80 earthquakes have been recorded between January 2008 and March 2009, ranging from 5 to 6.6 on the Richter scale in intensity. However, most of them had their epicentre at a far distance to Timor Leste or at sea and have not triggered tsunami warnings.

Roads can contribute to changes in the flow and quality of surface water and ground water, sometimes leading to increased flooding, erosion, siltation or drying up of natural groundwater levels. These changes can in turn have substantial effects on natural vegetation and wildlife and on human activities. Impacts on the water system can extend well beyond the immediate vicinity of the road and what appears to be a small problem may sometimes have substantial consequences.

Flooding is a common problem in Timor Leste, especially in the low-lying coastal plains along the southern shores. On a smaller scale flooding from overflowing rivers can also occur, especially in low-lying areas. Large amounts of sediments and gravel washed out from the upper catchments during high intensity rainfalls are deposited in low-lying downstream river sections. There, the deposits reduce the carrying capacity of rivers, often leading to overflowing and flooding of nearby low-lying areas. Deforestation and shifting cultivation and subsequent soil erosion are contributing to the increased sediment loading of rivers. This has a multiplier effect on flooding.

[192] It is estimated that more than 40 per cent of the land area of Timor Leste has a slope of greater than 40 per cent. In many places on Timor Leste extremely steep slopes are cultivated, often by shifting cultivation. High annual levels of rainfall in the central highlands combined with deforestation and clearing of land for agriculture on steep slopes – without soil conservation – produces land degradation and landslides occur often.

The climate of Timor Leste is hot and humid tropical, with large variations in rainfall and temperature over short distances due to the steep topography. Broadly speaking there are two annual seasons determined by the monsoon, which varies in length according to location, the monsoon lasting longer in the south (7-9 months; from December onwards) than in the north (4-6 months from December onwards).

Topography has a strong influence on rainfall quantity, with marginal to low rainfall observed along the northern coast of Timor Leste (< 1,000mm / year), low to moderate rainfall in the country's centre and on higher elevations (1,500-2,000mm / year), and relatively high rainfall (2500mm or more /year) on the highest mountains and plains mainly in the west of Timor Leste. In Dili more than 30 percent of the total annual rainfall may be received in a single day. This type of rainfall not only causes extremely high rates of erosion and infrastructure damage, it also runs off rapidly and may not effectively recharge groundwater sources. Very wet conditions in part of Timor-Leste (2,500mm) can also trigger slope failures. In many areas construction activities are only feasible during the dry season.

According to the National Adaptation Program of Action (NAPA) on Climate Change – which was prepared by the State Secretariat for Environment located within the Ministry of Economy and Development (MED) of the GoTL[193] - climate change in Timor-Leste is expected to lead to increases in rainfall patterns and intensity, more intense storm activity and increased temperatures and dry conditions. The effects of these climate changes that are relevant to the rural roads sub-sector include increased damage to infrastructure (including rural roads and associated appurtenant structures like bridges, culverts, retaining walls) because of increased flooding, increased surface water run-off, damage to road surfaces during extreme heat events and an increase in the occurrence of landslides.

A report of September 2010 on projections of future climate change in Timor-Leste, prepared by the Commonwealth Scientific and Industrial Research Organisation (CSIRO[194]) for the Department of Climate Change and Energy Efficiency of the Government of Australia also projects that average annual rainfall will increase over the long term. According to the projections these increases are likely to occur in those months with already relatively high rainfall. Extreme rainfall events are likely to become fewer but more intense. The report also mentions that Timor-Leste can expect an increase in temperature and an increase in the intensity of cyclone activity

4. Environmental Screening and Protection Measures

The main emphasis of R4D is on the rehabilitation and maintenance of existing rural roads where there are already established road alignments and where major road realignment and/or widening are not expected (also based on experiences of TIM-Works). As such it is not expected that R4D will cause significant irreversible and adverse environmental impacts. Possible environmental impacts are likely to be localized, short term and reversible.

In general it is actually expected that R4D will have a positive effect on the environment as the selection of appropriate design options (including adaptations to climate change), the use of local resource-based work methods, the quality control standards, and the inclusion of maintenance activities in R4D road works, will reduce erosion and minimize the risks of local environmental hazards (like landslides and flooding). Available information on climate change risks (in particular related to increases in the amount, intensity and duration of rainfall) will be taking into account to inform the design, including adaptation measures recommended by the NAPA that are relevant to the rural roads sub-sector (like improving physical infrastructure/civil engineering and natural vegetation methods to prevent landslides in hill sites, roads and riverbanks).

[193] An electronic version of NAPA is available on the website of UNFCCC: unfccc.int/resource/docs/**napa**/tls01.pdf
[194] An electronic copy of the report is available on the CSIRO website: www.csiro.au

Well-designed road works will also improve the surroundings environment by retaining water for human or natural benefits, or by reducing flooding and draining of unhealthy standing water (possible breeding grounds for mosquitoes for instance). With regard to erosion, drainage systems and soil stabilization measures (including bio-engineering stabilization measures) play an important role because of the considerable amounts of rain received in the mountainous areas and R4D is applying a unit cost rate for rural roads works (per km) that allows for the construction of adequate drainage structures, soil stabilization measures and the pavement of potentially highly erodable road sections (like steep road sections). The estimated costs for these measures are reflected in the unit-cost rate of US$ 50,000 per km for rehabilitation works in R4D's budget.

As explained above no significant adverse and irreversible environmental impacts are expected in R4D as the main focus of the Program is on the rehabilitation and maintenance of existing rural roads. With the focus on the rehabilitation of existing road alignments, it is also not expected that R4D rural road works will trigger indirect adverse environmental impact related to increased access to sensitive areas. In accordance with Decree Law 5 / 2011 an IEE is required for rural road rehabilitation works.

R4D has the provision for a very few new rural roads (up to a total length of 40 km). With typical roads lengths of individual rural road links in Timor-Leste varying in length between 5 and 15 km, these new rural road construction works under R4D do not require an EIA as Decree Law No. 5 / 2011 stipulates that only new rural roads with a length of more than 30 km require an EIA. New rural road construction will thus also be subjected to an IEE. As only GoTL funds will be used for new rural road construction through R4D, GoTL environmental decrees, regulations and guidelines will apply. For the construction of new rural roads it is proposed to impose zoning restrictions that outline construction limitations and conditions that need to be adhered to when (if at all) construction works are being proposed in environmentally sensitive/fragile areas and in protected areas.

The National Directorate for Forestry under the Ministry for Agriculture and Fisheries has prepared a list of a total of 30 protected areas (Status March 2009), which are in various stages of biological assessment and planning. Most of them have not yet been systematically surveyed and formal boundaries have not been established. These areas are likely to be managed in a way to allow activities in accordance with laws and tradition by local communities. R4D will establish and maintain a liaison with the National Directorate of Forestry to ensure that the Program will adhere to the directives of the directorate with regards to rural road rehabilitation and construction activities.

Considering the main focus of R4D on rehabilitation works and the assessment of possible environmental impacts, it is proposed to conduct an environmental screening of proposed sub-projects following a generic check-list. Such an approach is also suggested by the EC-funded draft rural roads master plan (financed under RDP-III) which included an assessment of possible environmental impacts [195]. This will ensure that environmental considerations are integrated into sub-project identification, planning, design and implementation.

During the planning of the sub-projects, R4D staff will include environmental considerations amongst the technical constraints and considerations that they will discuss with concerned Suco Councils and District Administrations, including zoning restrictions and design aspects of sustainable and environmentally-sound road construction.

[195] This was done through: i) a review of previous studies and work related to rural development, rural roads and environment issues; ii) discussions with a wide range of experts from various institutions in rural road development, environmental policies and implementation, and others, and; iii) In advance of the selection of roads for improvement under RDP III, environmental reviews of nine different districts and a sample of rural roads in Timor Leste was undertaken to provide an indication of the type of environmental characteristics of the areas through which roads pass and an indication of the overall impact of the potential rural road programme.

As part of the approval process for sub-projects, adherence to the zoning restrictions and technical guidelines will be verified by R4D staff. Technical requirements of construction, based on environmental considerations, will be included in contractor's specifications. Periodic checks on a sample of sub-projects will be carried out by the R4D staff, to verify that they comply with the zoning and construction quality requirements. The environmental management process should consist largely of verifying the inclusion of appropriate standards in the program design and implementation documentation. R4D will make use of relevant technical and operational manuals and other environmental best practice guidelines.

A proposed checklist to be used for the environmental screening of sub-projects is presented in table 9. This checklist will be reviewed and finalized during the inception period of R4D by an R4D ILO Environmental Specialist. The purpose of the environmental screening is to ensure the integration of safeguard considerations during the pre-construction, construction and operation & maintenance phase of sub-projects.

The outcome of the environmental screening will be reflected into Environmental Management Plans (EMPs) for individual sub-projects. Particulars of such EMPs will be reflected in instructions/guidelines for staff, in conditions and clauses in contractors' contracts, in specific designs, in construction approaches/technologies to be applied and in quality control & quality assurance systems and procedures. A format for a proposed standard Environmental Management Plan is presented in table 8.

R4D will disclose sub-project information, as part of the environmental assessment process and in line with the GoTL requirements for disclosure. In addition, all proposed sub-projects will be subject to participatory planning and appraisal, thereby providing for a significant local amount of disclosure.

Table 8: Proposed Format Environmental Management Plan

Sub-project Description:					
Brief Environmental Setting:					
Activity	**Impact**	**Mitigation Measures**	**Responsibility**	**Cost**	**Monitoring**

To ensure full implementation of the ESF measures, R4D will include environmental sensitization and training in its training and capacity building activities. Specific activities related to the implementation of the ESF will be identified during the inception phase of R4D and dedicated budget allocations will be made accordingly. The implementation of the environmental aspects (i.e. the EMPs) and adherence to environmental best practice standards is the responsibility of contractors, as set out in bid and contract documents. Field-based environmental monitoring to ensure contractor compliance is the primary responsibility of the DRBFC site-engineer assigned for each sub-project. Additional support and spot-checking will be carried out by the R4D ILO Regional Engineers, in coordination with local environmental authorities and DRBFC staff of the Regional DRBFC Offices.

The flow of reporting and advice that will be used regarding the preparation and implementation of the sub-project EMPs will be as follows:

- DRBFC site-engineers and supervisors – with support from ILO R4D Regional Engineers – will work closely with communities to provide guidance and advice on environmental risks of sub-projects and appropriate mitigation measures;
- R4D will integrate environmental considerations of rural road design and construction into the contracting and supervision responsibilities of the contractors;
- The ILO R4D Regional Engineers will provide technical advice and guidelines, as well as day-to-day guidance to DRBFC site-engineers and supervisors;
- The R4D Senior Engineering Specialist will provide an annual report on the key performance indicators to the CTA of R4D and the Director of DRBFC, and the latter will convey it to the Program Steering Committee and DoE.
- A review of R4D's performance in relation to the implementation of – and adherence to – the Environmental Management Framework will be conducted once a year by the joint AusAID/ILO Independent Monitoring Group (IMG). The findings of these reviews will be reported to the R4D PSC. During the inception phase specific indicators will be formulated to be able to capture R4D's performance in relation to the implementation of the ESF.

Table 9: Environmental Screening Checklist for R4D Sub-projects (Draft)

1	**Pre-construction phase screening:** Before actual construction starts, till the time the contract with the contractor is signed	
1.1	Protect potential environmentally sensitive areas and minimize negative impacts on sensitive ecosystems or the natural environment	• Confirm the location of environmentally sensitive or ecologically fragile areas, especially proposed protected areas, and locate construction sites/activities away from them or incorporate adequate safeguards in the design to mitigate possible adverse environmental impacts. • Ensure that DRBFC staff, ILO staff and contractors are aware of locations of sensitive areas and inform them to stay out of them. • Raise awareness among DRBFC staff, ILO staff and contractors about endangered species and their habitats and other relevant matters concerning the natural environment needs that have to be preserved. • If proposed construction must encroach onto or pass close to environmentally sensitive areas, construct temporary fences or permanent bunds or trenches to confine machines and activities. • Identify possible locations for the extraction of local construction materials in accordance with GoTL guidelines (these requirements will be worked out in the detailed design stage[196] and are governed by the GoTL Environmental Guideline no 2.[197]).
1.2	Appropriate designs that avoid erosion and damage to the road	• Ensure that roads designs have sufficient camber (5-8% cross fall) so that rainwater flows away from the road itself. • Ensure the provision of suitable erosion protection structures in the design (like retaining walls) to prevent erosion/landslides and/or to rehabilitate existing landslide areas and areas with obvious erosion problems. • Ensure in the design that road structures have effective drainage systems (side-drains, culverts and sufficient turnouts). • Ensure that crossing water flows are properly taken care of in the design (bridges, culverts). • Ensure in the design that appropriate compaction standards are set • Review alternative pavement scenarios, vis-à-vis traffic requirements, costs and erosiveness. • Incorporate – as appropriate – bioengineering solutions to prevent erosion/landslides and to encourage re-vegetation after construction. • Identify suitable sites/quarries to extract local construction materials in accordance with GoTL guidelines. • Determine suitable sites for stockpiling/disposal of materials. Preferably locate where long-term stockpiles can be stabilized by vegetation. • Allocate sufficient resources to ensure adequate site supervision during the implementation of the construction works.

[196] As per current regulations it is for example not allowed to extract local construction materials from borrow pits that cannot be obtained from riverbeds within 100 metres of large rivers and 50 metres of small rivers and no extraction within 50 metres of other surface water features or other sensitive sites (environmental or socio-cultural) is allowed.

[197] The guideline stipulates that: i) all works, undertaken by the contractor, shall not cause any damage to the vegetation or morphology of the stream bank; ii) any damage incurred by contractors shall require immediate rehabilitation to minimise the effects of erosion during the rainy season; iii)- No extraction work shall be undertaken within 10 metres from the riverbanks; iv) No stockpiling shall be undertaken on the bank of the river; v) Skimming of the river bed shall be preferable method of gravel extraction; vi) No washing of gravel material shall be undertaken within the river basin; vii) No gravel extraction shall be undertaken in actively flowing channels, to minimise the mobilisation of sediment downstream; viii) No artificial watercourses shall be dug by the Contractors which redirect water flow to the edge of the river bank; ix) Any alternative watercourses constructed on site shall be dug a minimum of 10 metres from the riverbanks; x) Channels dug shall be continuous so as not to restrict the flow of water; xi) The works shall not create any deep pools or deep channels; xii) Vehicle movement on the site and the nearby area shall be controlled; xiv) Adequate access to stockpiles of aggregates shall be given to residents

2	**Construction phase screening**: From time that contract is awarded until the time of issuing of Certificate of Completion to the contractor – including liability period	
2.1	Reduce erosion by minimizing the amount of materials and sediment lost from the site	• Reduce the time that surfaces remain bare and keep vehicles on defined tracks. • Avoid disturbance on steep slopes and keep vegetation clearing to a minimum. • Construct necessary temporary/permanent control structures. • Strictly enforce disposal of surplus material at designated, environmentally safe disposal/fill sites. If spoil heaps or stockpiles containing fine sediments remain bare for extended periods in high rainfall areas, cover them to prevent erosion and sediment runoff. Disposal sites have to be set back away from watercourses, drainage lines and also avoid steep or unstable slopes. The base of disposal/stockpile sites should be levelled and contained. If community groups plan to use spoil locally, a clear and level site must be prepared on which the spoil can be dumped. Where possible, use spoil to backfill quarry areas or waste disposal pits before they are re-vegetated • Implement engineering "best practices" like the use of appropriate local resource-based construction methods and technologies. • Include all drainage provisions suggested for construction sites in the site plans. • Ensure that defects in works are repaired quickly and adequately by contractors during construction period and liability period.
2.2	Minimize dust and sediment run-off	• Install control structures at the outset of construction phase, as necessary with silt traps along flow lines. • All disturbed areas that are not to be paved should be re-vegetated or prepared for natural re-vegetation after final land shaping. • Phase ground disturbance so that it is limited to areas of a workable size and schedule construction so that large areas of soil are not laid bare during wet seasons. • Contain construction areas using a bund or trench, or isolate them from other surface run-off, and clean and rehabilitate them when construction is complete. • If the road is on loose or unstable rock, slope the batters gently; high batters will need steps or horizontal benches, and re-vegetation and/or bio-engineering will be necessary. • Avoid discharging water on to unstable slopes or old landslips. • Ensure that stockpiles, spoil heaps and batters are managed properly.
2.3	Control storm water to minimize the impact of run-off water	• Divert run-off from non-construction areas (temporarily) around construction areas to keep natural flows separate from construction run-off. • Design drains and culverts to remove all run-off water without scour. On steep slopes culverts and side drains may need to be stepped.
2.4	Ensure appropriate selection and management of quarry	• The contractor can propose the quarry site, but R4D will need to approve the sites, the quality and suitability of the materials, the proposed extraction methods and the proposed extraction volumes - in line with GoTL guidelines. R4D's approval will also consider the environmental impacts of the specific quarrying site. • As required, the contractor needs to prepare the approved material extraction sites (quarries) like the construction of retaining walls and drainage facilities (to ensure for example bank/channel stability in the area to be quarried, to minimize erosion and sedimentation).
2.5	Waste disposal, handling of hazardous materials such as oils, and landscaping	• Contain all stores waste within construction sites and crush, burn, and bury all inorganic solid waste in an approved disposal area • During site cleanup, burn all spilled fuel oils and remove all disabled machinery from the project area. • Use above water-table pit latrines, septic tanks or composting toilets at construction sites. • Compost all green or organic wastes or use as animal food.

2.6	Occupational health and safety risks	• Ensure all occupational health and safety requirements are in place on construction sites and in work camps; • Install lights and cautionary signs in hazardous areas; • Limit time of exposure to dust particles, chemical, and noise; • Ensure that safety and inspection procedures are in place, including procedures for handling (toxic and hazardous) materials/substances and explosives, conducting tests, paving, operating heavy equipment, and constructing trenches
2.7	General health and safety awareness activities for construction workers	• Introduction to health and safety issues on construction sites including main areas of risk to workers and others • Education on basic hygiene practices to minimize spread of typical tropical diseases • HIV/AIDS and STD awareness, including information on methods of transmission and protection measures • Prohibition of drugs and alcohol on construction sites • Procedures for seeking medical assistance in emergency or non-emergency situations and procedures for seeking other health-related assistance.
2.8	Decommissioning of the used sites by the contractors.	• Establish a site re-vegetation plan. Where possible involve local women's groups to provide materials and implement re-vegetation. The re-vegetation plan could include: (i) name(s) of contact landowner/community group; (ii) summarized outcome of discussions, and decisions on what will be planted; (iii) list of seedlings/stock to be provided, by whom (people or group), agreed price, and (iv) agreement for planting and tending
3	**Operation and maintenance phase screening:** From time of issuing of Certificate of Completion by MoI/DRBFC to contractor until the end of the 20 year life time of the subproject	
3.1	Ensure that the roads are being maintained properly.	• MoI/DRBF needs to ensure that sufficient resources are allocated for the maintenance of the roads during their life-time, including a provision for emergency maintenance. • R4D needs to ensure that routine maintenance (annually) and periodic maintenance (every third year) is being undertaken as per specifications and standards.

Annex 22: Draft Outline Anti-Corruption Plan

An operational Anti-Corruption Action Plan (ACAP) for R4D will be formulated during the inception phase, in line with the ILO's Anti-Fraud Policy directive. It will be binding to all parties when agreed to.

Annex 23: Details of Proposed 4 Years R4D Budget

PROPOSED AusAID BUDGET FOR R4D	US$
Chief Technical Advisor	960,000
Institutional/Capacity Development Specialist	648,000
Senior Engineering Specialist	648,000
Database Specialist	168,000
GIS Specialist	168,000
M&E / Knowledge Management Specialist	648,000
Contract Management / Procurement Specialist	216,000
Community Development / Gender Specialist	462,000
Regional Engineers (5 positions)	3,108,000
Consultants	200,000
International Experts and Consultants	**7,226,000**
Finance/Admin Officer	120,000
Finance/Admin Assistant (2)	120,000
Drivers (13)	382,200
Support Staff	**622,200**
Local Travel and Allowances	220,000
Local Travel and Allowances	**220,000**
International Travel and Missions	240,000
Monitoring & Evaluation Missions	320,000
Missions	**560,000**
R4D District Coordinators	150,000
Consultants	40,000
National Staff and Consultants	**190,000**
Sub-contracts Works	13,198,000
Sub-contracts MOI	925,000
Sub-contracts surveys and LOAs	250,000
Sub-contracts	**14,373,000**
Fellowships	90,000
Fellowships	**90,000**
Training, Workshops, Seminars	160,000
Publications	50,000
Study Tours and External Training	60,000
Training and Workshops	**270,000**
Equipment	975,000
Expendable Equipment	40,000
Equipment	**1,015,000**
Operation and Maint. Equipment	310,000
Miscellaneous Operation and Maintenance	159,631
Operations and Maintenance	**469,631**
Sundries	244,333
Security	200,000
Media and Visibility	100,000
Sundries	**544,333**
Program Support Cost	3,325,421
Provision for Cost Increase	1,094,414
TOTAL PROPOSED AusAID BUDGET FOR R4D	**30,000,000**
RECOMMENDED GoTL CONTRIBUTION TO R4D	US$
Sub-contracts Works	**18,594,000**
Staffing inputs	**1,975,200**
TOTAL RECOMMENDED GoTL CONTRIBUTION TO R4D	**20,569,200**
TOTAL BUDGET PROPOSED FOR R4D (AusAID + GoTL)	US$
Sub-contracts Works	**31,792,000**
Staff, Equipment, Ops, Training, etc.	**18,777,200**
GRAND TOTAL R4D	**50,569,200**

Annex 24: Indicative R4D DRBFC Counterpart Staffing Plan and Cost-Estimate

		Year 1		Year 2		Year 3		Year 4		Total	
		WM	US$	WM	US$	WM	US$	WM	US$	WM	US$
	Central Level	**162**	**127,800**	**216**	**169,200**	**216**	**169,200**	**216**	**169,200**	**810**	**635,400**
1	OIC for Rural Roads	12	12,000	12	12,000	12	12,000	12	12,000	48	48,000
2	Head of KM Unit	12	10,800	12	10,800	12	10,800	12	10,800	48	43,200
3	Rural Roads Planner	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
4	GIS Officer	6	4,800	12	9,600	12	9,600	12	9,600	42	33,600
5	MIS Officer	6	4,800	12	9,600	12	9,600	12	9,600	42	33,600
6	Gender Focal Person	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
7	Website Officer	6	4,800	12	9,600	12	9,600	12	9,600	42	33,600
8	Data entry operator (2x)	18	10,800	24	14,400	24	14,400	24	14,400	90	54,000
9	Admin/finance assistant	9	5,400	12	7,200	12	7,200	12	7,200	45	27,000
10	Communication/KM Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
11	LB Rural Roads Engineer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
12	Community Dev. Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
13	Contract Manag. Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
14	Procurement Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
15	Reporting Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
16	M&E Officer	9	7,200	12	9,600	12	9,600	12	9,600	45	36,000
17	Capacity Developm. Officer	12	9,600	12	9,600	12	9,600	12	9,600	48	38,400
	Regional Level	**60**	**42,000**	**120**	**84,000**	**120**	**84,000**	**120**	**84,000**	**420**	**294,000**
18	Quality Control Officer (5)	30	24,000	60	48,000	60	48,000	60	48,000	210	168,000
19	Laboratory assistant (5)	30	18,000	60	36,000	60	36,000	60	36,000	210	126,000
	District Level	**90**	**63,000**	**468**	**327,600**	**468**	**327,600**	**468**	**327,600**	**1,494**	**1045800**
20	District Engineer (5-13)	30	24,000	156	124,800	156	124,800	156	124,800	498	398,400
21	Supervisor (5-13)	30	18,000	156	93,600	156	93,600	156	93,600	498	298,800
22	Community Facilitator (5-13)	30	21,000	156	109,200	156	109,200	156	109,200	498	348,600
	TOTAL	**312**	**232,800**	**804**	**580,800**	**804**	**580,800**	**804**	**580,800**	**2,724**	**1,975,200**

Notes: Staff costs need to be checked with DRBFC.

The cost-estimate only shows incremental staff costs for DRBFC. It has been assumed that current positions remain filled and financed by MoI/DRBFC.

Annex 25: Benefits from Improved Rural Roads Access in Timor-Leste and Elsewhere

The main benefits for women and men in rural Timor-Leste that are expected from the rehabilitation and maintenance of rural roads through R4D are social and economic benefits from improved rural road access.

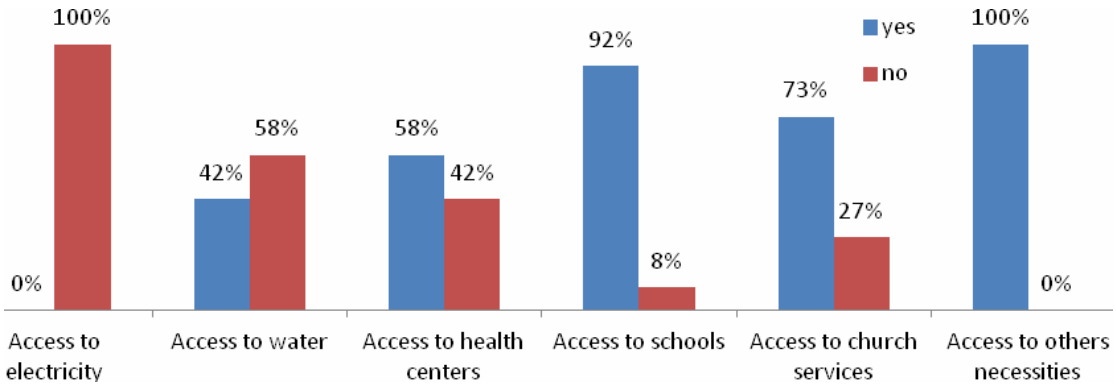
Impact evaluation studies of rural roads projects in Timor-Leste and elsewhere indicate that improved rural road access can have a wide range of livelihood benefits for the rural people who are using these improved rural roads. Impact studies show that a wide range of possible benefits can be expected from improved rural road access. These include the benefits of improved access, lower transportation costs and reduced travel times on: i) lower costs of agricultural inputs and services, increased agricultural productivity and increased agricultural outputs; iii) higher farm-gate prices for farmers; iv) improved access to health centres, basic education and local markets, and; v) an increase in local economic activity and an increase in off-farm businesses and employment opportunities.

This annex summarizes the findings of impact studies for selected rural road projects in Timor-Leste and elsewhere that show the benefits of improved rural roads access on the livelihood situation of the rural people living in the area of influence of the rural roads that were improved.

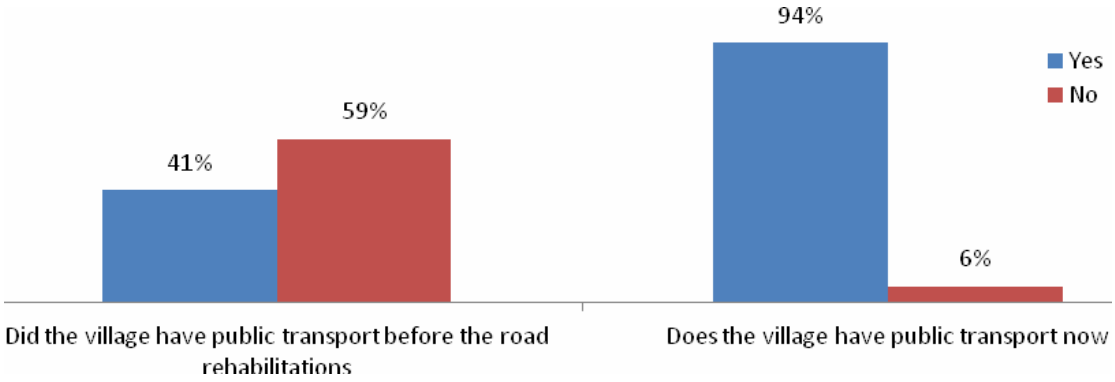
A. ILO TIM-Works Project, Timor-Leste

To assess the extent to which TIM-Works has contributed to the objectives of improving the social and economic livelihood conditions of local communities – through improvements in rural road access – an impact study that was commissioned by the ILO. The study was conducted in the period February – March May 2011 and covered a representative sample of the rehabilitated TIM-Works roads (50% of the roads that were rehabilitated at the time of the study). A total of 12 FGDs were held (including a total of 100 participants) and 162 structured individual interviews were conducted with local beneficiaries (including 27 interviews with small local business owners / service providers).

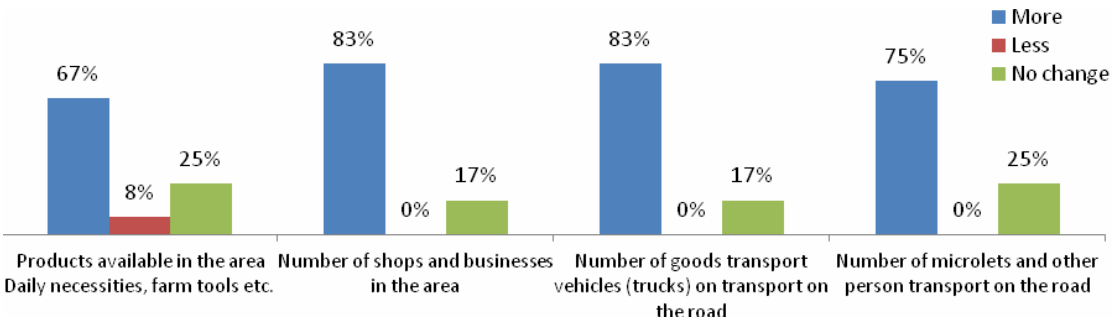
The findings of the study indicate that the roads rehabilitated and maintained by TIM-Works resulted in higher frequency of public vehicles, being it passenger or goods transport, moving through the communities. This in turn has provided improved mobility of the beneficiaries as well as improved business opportunities available to the local population. In particular the easier access to move goods in and out the communities has resulted in direct and immediate economic benefits in the areas where the road sub-projects are located. The chart below shows the percentage of people who reported improvements in access to various social and economic facilities and services (i.e. those who answered yes) due to the road improvement.



The main reason quoted for the improved access to the various social and economic facilities was the increased frequency and variety of public transport that became available after the roads were rehabilitated, as can be seen in the chart below.



The impact study also showed that there was a significant increase in economic activity in the communities that benefited from the improved rural road access, as is shown in the chart below.



About 90% of the respondents (from FGDs and from structured individual interviews) mentioned that the improved road access had resulted in decreased travel times, increased travel frequency and an increased availability of goods in the locality.

Among the interviewed persons who were operating businesses (27 persons), most of them had already operated a business before the Project. However, 4 of them (i.e. 15%) of the business people that were interviewed had started their businesses as a result of the improved road and associated new business opportunities in the locality. 59% of the interviewed business people were women. 3 out of the 4 business people who started their business after the completion of the road works, used the money that they had earned while working as a wage labourer in the Project to set up their business.

93% of the interviewed business owners mentioned that the improved road access – and associated with it the increased and improved availability of all kinds of public transport – had a positive impact on their business in particular and overall economic activity in the locality in general.

The survey respondents mentioned the importance of ensuring the continued maintenance of the improved roads to ensure that the benefits could be sustained. They also mentioned that more attention needed to be given to road drainage structures in the works.

B. UNDP/ILO Project: Capacity Building for Local Resource-Based Road Works in Selected Districts in Aceh and Nias - Indonesia

In response to the devastating tsunami that hit Indonesia in 2004, The UNDP/ILO project '*Creating Jobs: Capacity Building for Local Resource-based Road Works in Selected Districts in Aceh and Nias'* was formulated. The project is being implemented with funding from the Multi-donor Fund for Aceh and North-Sumatra and aims at contributing to the recovery and reconstruction of Aceh and Nias by integrating capacity building activities with road construction works in selected districts in Nias Islands and Aceh Province.

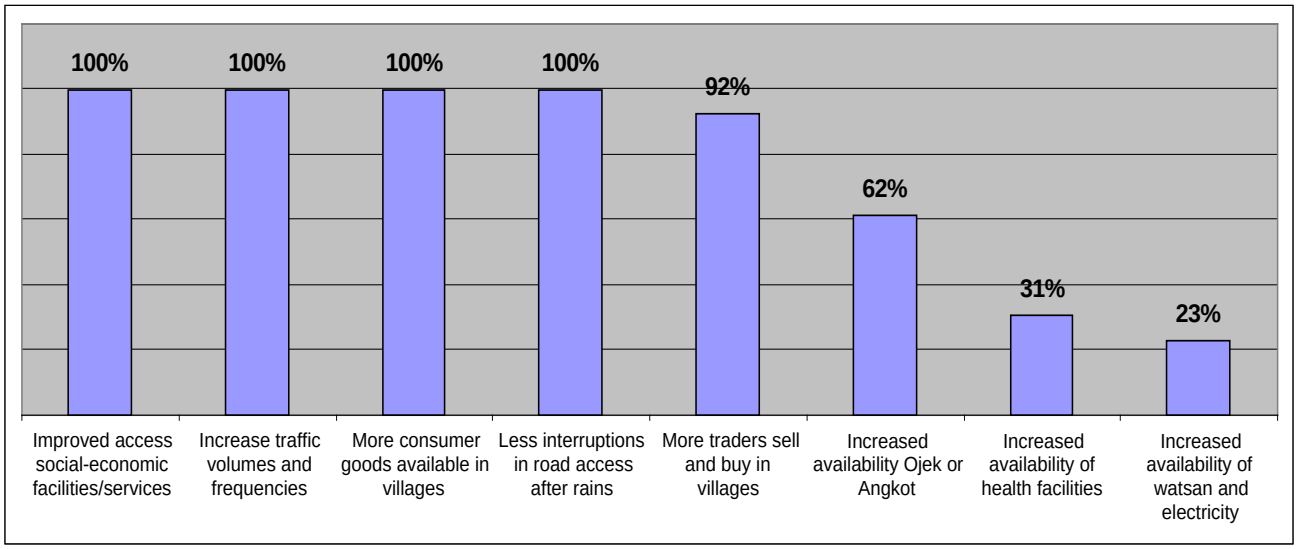
To assess the extent to which the Project contributed to the objective of restoring the rural livelihoods of communities of the disaster affected populations in Aceh and Nias – through improvements in rural road access to social and economic facilities and services – an assessment of the effect of the improved road access to the beneficiaries has been made through a study undertaken by the Project in May-June 2010. The study covered 13 rehabilitated road links (with a total length of 73 km), or 50% of the total length of roads that has been rehabilitated by the Project.

Semi-structured individual interviews and focus group interviews constituted the main elements of the survey methodology for data collection. Both qualitative and quantitative data were collected. Supplementary – quantitative – data were extracted from available Project records. Field observations and checks were used to cross-check information provided by the interviewed respondents (e.g. on travel times and on main origin-destination routes). 13 semi-structured FGDs were held and 34 individual structured interviews were conducted.

The findings of the study indicate that the improvements in road access to the district, provincial and national road network realized by the Project have provided all-year round road access for 75 villages (with a population of 61,500 people) located in the immediate area of influence of the 13 surveyed roads. It has resulted in substantial savings in travel times and travel costs, an increase in long-term employment opportunities, improved access to local markets, health centres, educational facilities, public transportation and public utilities like drinking water and electricity.

Due to a reduction of transportation costs, the profit margins of the sales of agricultural produce have also increased. With the improved road access, more products are available locally and the number of local businesses has increased. The value of agricultural land has also increased significantly since the road improvement works have been completed and in a number of areas agricultural activities have intensified and/or expanded. All above mentioned benefits have resulted in an increase of the net income of the targeted beneficiaries and have created additional spin-off employment opportunities (in particular through increased local business opportunities, agriculture-based employment opportunities and an increase in agricultural productivities).

The chart below shows the percentage of respondents who mentioned the different benefits of improved rural road access.



Specific benefits from the improved rural road access that were found from the impact study included:

1. An average reduction in travel time on typical origin-destination routes of 64 minutes (72%)
2. A reduction of 40-75% in operating costs of privately owned motorbikes;

3. A reduction in the transport costs of goods by 8 ton trucks with 50-75%;
4. A reduction in costs of public transportation of 30-50%;
5. Average increase in travel frequency to the local markets with 100%;
6. Increase in number of operators of public transport vehicles and private trucks, leading to additional employment opportunities for the operators of the public transport vehicles and trucks;
7. An increase in the areas under agricultural production and/or a diversification/intensification of agricultural production, leading to increased agricultural employment opportunities;
8. An increase in the annual turn-over and profits of existing small business owners, ranging between 10% and 150%;
9. Establishment of an additional 44 local grocery shops along the 13 roads that were covered under the study
10. Increase in sales of motorbikes (*In one village in the Nias cluster the ownership of private motorbikes increased from 7 to 127 as a result of the road improvements, thereby giving a substantial boost to the local motorbike sales agents and the motorbike workshops)*;
11. A few respondents mentioned that the skills that they had acquired while working as a construction worker on the Project had enabled them to find jobs after the completion of the work on the Project (e.g. in the case of masons). Others mentioned that they had used the money earned as construction worker on the Project to start their own business;
12. In 4 villages health centres were constructed and electricity or water and sanitation facilities were provided in 3 villages as a result of the road improvements;
13. Increased school attendance was reported in 6 out of the 13 villages due to improved road access to the schools;
14. 2 villages reported that the improved road access to the plantations had resulted in a reduction of theft from the plantations;
15. In 6 of the surveyed villages it was mentioned that prices of consumer goods decreased. In the other surveyed villages this was (not yet) the case;
16. In 10 villages it was reported that the value of agricultural land had increased with 75% to 500% due to the road improvement.

C. Findings from Impact Studies of Various Other Projects

This section provides an abstract of finding of impact studies of rural road projects on the livelihood situation of the rural people benefiting from improved rural road access.

C.1 A Background Note from the Overseas Development Institute (ODI) of August 2011 titled Achieving *pro-poor growth through investment in rural feeder roads: the role of impact evaluation* summarizes the findings from a number of impact evaluation studies of rural feeder road projects. According to ODI the results of those studies show that:

- Markets in Viet Nam are more likely to develop as a result of road improvements where communities have access to extended networks of transport infrastructure (see Mu and van de Walle, 2007)
- Benefits from improving access to basic education in Uganda depend, for example, on complementary investments in infrastructure (see Deininger and Okidi, 2003)
- Road improvements in Bangladesh, for example, led to lower input and transportation costs, higher production, higher wages and higher output prices (see Khandker et al., 2006)
- Access to roads in Nepal improves the productive capacity of poor households (see Jacoby, 2000)
- Road rehabilitation in Georgia increases the opportunities for off-farm and female wage employment (see Lokshin and Yemtsov, 2005)
- Rehabilitation and maintenance of roads in Peru improved some measures (access and attendance to schools and child health centres) but had no significant impact on others (agricultural production, income, poverty) (see Escobal and Ponce, 2003)
- The mean distance to services and community assets diminished significantly thanks to the rehabilitation of feeder roads in Zambia's Eastern Province (see Kingombe, 2011).

C.2 A DFID White Paper Submission to the INTERNATIONAL FORUM FOR RURAL TRANSPORT AND DEVELOPMENT in 2009 with the title *Improved Rural Transport is a Critical Catalyst for Change* includes summaries of findings of impact studies of rural road projects. These reported findings include:

- Thousands of villagers in Southern Zambia benefited from an innovative programme that constructed improved market access roads. Farmer groups selected the routes they felt were most appropriate, road construction was done through labour-intensive methods and gender dimensions ensured women's participation. The result was 700km of gravel road that halved travel distance related operating costs for farmers and other users, doubled the number of traders, improved food security, generated employment (25% of which was for women) and improved the safety of school journeys for children;
- Statistics drawn from the Pakistan Integrated Household Survey (PIHS) 2001 – 02, illustrate that villages accessible by all-weather motorable roads are much more likely to score highly for a selection of Human Development Indicators. The presence of an all-weather motorable road is associated with an increase of 50 % in girls' education rate and 75% increase in female literacy; and increases of 15% and 20% respectively for males. The survey also showed that good accessibility provided by all weather motorable roads leads to better health outcomes such as significantly higher rates of pre-natal consultation, immunization coverage, contraceptive prevalence, and births assisted by skilled attendants;
- A survey of a rural roads improvement program in four areas in Morocco found that women and girls especially benefit from providing all-weather road access. Not only did the better roads make delivery of butane more affordable and reduce the need for women to collect firewood, freeing up as much as two hours daily, but the new roads brought about an increase in the number of girls enrolled in primary school. The new roads made travel to school safer and encouraged parents to send their daughters to school. Primary school education enrolments in the study areas reached 68 percent, compared to 28 percent prior to the improvements, and the enrolment of girls more than trebled;

C.3 An impact study done in March 2010 of the social and economic benefits of the EU-funded Community Access Programme (CAP) in the Tsunami affected district of Ampara in Sri Lanka showed that CAP had a positive effect on the livelihood conditions of the rural people livening in the catchment area of the 200 km of rural roads that were reconstructed or rehabilitated (and subsequently maintained) by the Programme in the period January 2007 to December 2009. 63 km of the completed roads were covered by the impact study, involving structured interviews with 481 households and FGDs with local community leaders. The impact study revealed that the following benefits had materialized due to the improved rural road access:

- Increase in paddy production due to an increase of the area under cultivation with 200 acres;
- A reduction of paddy production costs of 12% due to reduced costs of transportation of fertilizer and paddy and reduced labour input requirements;
- An increase in the number of small businesses with 275% along the improved roads and an increase in the turn-over for 1/3rd of the already existing small businesses along the improved roads;
- Increased income from increased milk production/collection;
- An increase in the property value of agricultural land of 60% within the catchment of the roads related to the improved road conditions and the improved accessibility to the agricultural land. Due to the road improvements the lease rates of agricultural land doubled;
- Due to road improvements and related increase in economic activity, an estimated 326 extra jobs have become available during the first year after the completion of the road works;
- Due to improved rural road access, an additional health centre was established, the availability of public transport increased, accessibility to health and school facilities improved, the frequency and volumes of the transportation of goods and people increased, transportation costs decreased and more goods were available locally at lower prices.

Annex 26: Abstract of Draft EC-Funded Rural Road Master Plan

With funding from the EC, a draft Master Plan for Rural Roads (MPRR) in Timor-Leste was prepared for MoI through the EC-funded Rural Development Programme III. This Master Plan was prepared in 2010 and the final report was submitted by the Consultant in November 2010. The MPRR complements the Master Plan for National Roads (MPNR) that was completed in 2009, under ADB TA 7100, and which covers the period 2010 – 2019. The MPNR includes the appraisal of some 258 km of District roads, of which 78 km is recommended for upgrading during the period 2010 – 2017. The MPRR integrates the appraisal of the works options on those District Roads not included in the MPNR with the appraisal of Rural Roads.

The MPRR includes a condition inventory of 787 km of rural roads. This represents about 26% of the total estimated length of the rural road network in Timor-Leste of 3,025 km. No condition inventory could be carried out for the remaining rural roads (an estimated 2,238 km) because these roads were either inaccessible by 4-wheel vehicle or could not be located (no map is available showing all the rural roads in Timor-Leste, nor is there a comprehensive database with all the rural roads and coordinates providing information about their geographic location).

The MPRR includes maps of all the surveyed roads and a detailed database with an inventory of these roads, including bridges and culverts. GIS coordinates of all the surveyed roads have been collected and photographs have been taken at 25 meter intervals. All these data have been submitted to DRBFC as hardcopy and electronically. Based on the survey, the condition of the rural roads has been classified as good, fair, bad or very bad.

The MPRR prepared draft design standards for rural roads, based on standards developed by the on-going ADB funded TA to DRBFC and by the GtZ developed standards under the EC-funded RDP-II Project. MPRR supports the standards recommended by the ADB TA and GtZ but recommends that – to prevent excessively high construction costs – compromises need to be made, especially in mountainous areas. The strategy recommended by MPRR is to keep the current road width for the rural and district roads in mountainous area and concentrate on basic accessibility. The MPRR also recommends that the GOTL should focus the effort on improving the drainage system and support structures as mainly crucial side ditches were found missing. It is also recommended by MPRR to improve the road sub-base & base courses and to construct pavements using low cost methods and restrict asphalting to short steep sections only.

MPRR has identified a number of work options and estimated the costs for the rehabilitation and maintenance of rural roads. The rehabilitation/improvement costs are estimated road by road and ranged from about $30,000 to $70,000 per km. Annual maintenance costs for rural roads are estimated at US$ 750 per km by MPRR.

In appraising the priority of the rural roads, MPRR has used a method developed by the World Bank for low traffic roads as described in “Design and Appraisal of Rural Transport Infrastructure”. This method estimates the total potential volume of trip making and the gross time saved by improvement of the subject road. It does not discriminate or value the value of the savings in time nor does it embrace travel for social, family and other travel of the rural community, or use of the road by visitors to the area from outside of influential zone of the roads. However, because access improvement to essential services is of the most significance to improve the way of life of the local population, it has become an accepted approach to comparative evaluation of rural road improvement schemes where conventional cost-benefit analysis based on traffic would not generate EIRRs sufficiently high to justify inclusion in international lending programmes, as mentioned in the MPRR.

The MPRR includes a prioritization of the surveyed district and rural roads. For rural roads two priority groups are distinguished, with the higher priority given to those roads for which the surveyed length (or estimated length if most of the road could be surveyed) exceeded 4 km: that is about 1 hr walking distance. Within each of the two priority groups, the rural roads have been ranked for improvement priority according to an “Accessibility Index” divided by the estimated improvement cost (inflated by

25% in the case of roads which served Sucos considered by MED to have high development potential). A ranked priority of 89 rural road links is provided by the MPRR, covering a total road length of 724 km of rural roads.

Based on an assessment of the current and expected future capacities in the public and private sector for the planning and delivery of investments in rural roads, the MPRR proposes a target funding for 2011 for investments in rural road works of US$ 5 million, increasing to US$ 8 million in 2012 and further one, annual increases in investment levels of 15%. These recommendations are well aligned with the recommendations of the R4D design mission.

The MPRR includes a proposed work plan and budget for rural roads for the period 2011-2015 and an outline of a work plan and budget for the period 2016-2020. For the period 2011-2015 the MPRR targets the rehabilitation and improvement of 637 km of rural roads, and for the period 2016-2020 another 1,012 km. The total length of rural roads in good condition and that would be maintainable in 2020 would thus be 1,649 km according to the MPRR, or 55% of the estimated total length of the rural road network in Timor-Leste. The MPRR estimates that total investment requirements for these 1,649 km – including routine, periodic and emergency maintenance – over a 10 years period would be US$ 133.5 million. In comparison, the R4D design mission estimates that an investment of US$ 143.7 million would be required over a period of 10 years for the rehabilitation and maintenance of 2,175 km or rural roads.

The difference in investments costs for rehabilitation and maintenance costs between the MPRR (estimated at US$ 81,000 per km) and the R4D design mission (US$ 66,000 per km) are explained by the fact that for the estimates as presented in the MPRR, a sample of contractors in Timor-Leste was contacted and data were obtained from DRBFC and the Master Plan for National Roads. The MPRR report acknowledges that there were wide variations and a lack of consistency in the data obtained. The R4D design mission used information from the TIM-Works project on cost-estimates and made necessary adjustments to accommodate the need for adequate and robust drainage and soil stabilization structures, the inclusion of sealed pavement on short-steep road sections, and the adaptation to required 'climate proofing'.

The MPRR used unit-cost rates based on equipment-intensive construction methods whereas for R4D labour-based (and light equipment-supported) methods were assumed in estimating costs. For the types of works envisaged under R4D, labour-based methods are usually considered to be more cost-effective for many operations, and this is also a reason that explains the difference in rehabilitation costs.

The MPRR includes cost-estimates for improving/rehabilitating all the individual road links that were surveyed and their maintenance costs. Information is also included about the type of activities to be carried under the different categories of maintenance work (routine, periodic, emergency).

Useful information is included and recommendations and recommendations are provided regarding design standards, rural road improvement options, material standards and specifications, construction standards, and environmental issues. The MPRR includes for example information on:

- Recommended design principles for low volume rural roads in Timor-Leste;
- Recommended geometric road design standards;
- Required standards and specifications for aggregate road construction materials;
- Design recommendations for sub-base and gravel wearing course;
- Locations of available quarries for construction materials and an inventory of the quality of these materials;
- An outline of a recommended environmental safeguards framework and an environmental monitoring and mitigation plan;
- Recommended slope stabilization measures (including bio-engineering);

The MPRR recommends that no land acquisition or resettlement will be required as the type of activities envisaged for the reconstruction, rehabilitation or minor works for rural roads is unlikely to involve any widening of carriageways or right of way. In addition the surveys conducted within the framework of the

preparation of the MPRR showed that all buildings and uses, including agricultural uses, are set back some distance from the carriageway, at least 5 meters as a general rule.

As social impact assessment is part of the MPRR and includes an assessment of the benefits that can be expected from improved rural roads access. Data from the 2007 Timor-Leste Standard of Living Survey (TLSLS) have also been used for this assessment. According to the MPRR the impact of improved rural road access through rural road rehabilitation and maintenance on poverty reduction can be derived through (but not necessarily measured by)

- Increased access of rural communities to basic social services such as education, health care, and local markets;
- Increased employment opportunities for unskilled workers in the area;
- Indirect and induced economic growth in the project-affected regions and the nation as a whole; and
- Anticipated reductions in transportation costs to road passengers, freight users, and vehicle operators.

According to the MPRR benefits to the agricultural sector in Timor-Leste from (rural) road improvements will be longer-term, rather than, immediate. The MPRR acknowledges the fact that roads are a pre-requisite for development and that better roads will lead to better access which in turn will facilitate development and contribute to poverty reduction. The MPRR mentions however that, in the context of agricultural production in Timor-Leste – which for both livestock and crop production is the lowest in the region – contingent actions and investments are required before significant improvements in poverty reduction will be manifest and until agricultural productivity is increased there will not be substantial reductions in poverty.

The MPRR mentions that according to the 2007 TLSLS that inter-urban and rural transport services are constrained by the poor road infrastructure. Some rural routes are impassable and others are very expensive in terms of operating costs. Improving and maintaining the roads is the most important requirement for extending road transport services. The main factor according to the 2007 TLSLS that limits the access and impedes mobility (quality and quantity of road transport services) in Timor-Leste is inadequate and poorly maintained roads and river crossings. Therefore, there is need to;

- Maintain existing infrastructure;
- Ensure funding availability for future maintenance;
- Prioritize spots needing most urgent attention; and
- Replace failed bridges.

The MPRR mentions that, according to the 2007 TLSLS rural road improvements and maintenance are strongly supported by rural people. According to the TLSLS, overall some 72% of survey respondents (males 92% and females 78%) considered that their household would be directly benefit form improved rural road access. Between 54% and three-quarters of respondents considered the project would create benefits in terms of improving transportation and travel. Making travel safer and more comfortable, and providing opportunities for improved bus services, were identified as benefits by 76% of respondents.

Benefits for economic activities were considered as potential benefits by between 49% and 78% of respondents, including improving market access, increased opportunities for trade and marketing, and an increased opportunities for a wider range of goods to be available locally. Social benefits were identified by 80% of respondents including improvement in access to important facilities and services (70%), improving the communication between Sucos (80%), and improving access to Dili. Some three-quarters of respondents identified benefits to be derived during road construction work periods by the creation of employment opportunities (78%) and opportunities to sell goods (food etc) to construction workers (73%).

The MPRR also includes a section with guidelines and recommendations regarding the participation of local communities in the selection, planning and implementation of the works. Guidelines and criteria are suggested on how candidate rural roads could be identified, prioritized and ranked, with participation of local stakeholders.