PROPOSAL

COMMUNITY DEVELOPMENT PROGRAM THROUGH AGRO-SILVO-PASTORAL IN TIMOR TENGAH UTARA AND NAGEKEO DISTRICTS OF NUSA TENGGARA TIMUR

(Program Pengembangan Masyarakat melalui Sistem Agro-Silvo-Pastoral di Timor Tengah Utara dan Nagekeo, Nusa Tenggara Timur)

SUBMITTED BY

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PROGRAM 2011 – 2013

TO

AUSTRALIAN INDONESIA PARTNERSHIP

AUSTRALIAN DEVELOPMENT AID (AUSAID)

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PROJECT SUMMARY

Project Name	:	Community Development Program Through Agro-Silvo-Pastoral in Timor Tengah Utara and Nagekeo Districts of Nusa Tenggara Timur Program Pengembangan Masyarakat Melalui Sistem Agro-Silvo-Pastoral di Timor Tengah Utara dan Nagekeo, Nusa Tenggara Timur
Goal	:	Poverty reduction of rural communities by increasing incomes and improving food security in marginal areas through sustainable agro-silvo-pastoral systems and equitable development in Timor and Flores Islands in Nusa Tenggara Timur Province – Indonesia
End of Program Outcomes	:	Outcome 1: Improved agro-silvo-pastoral production, consisting of • Improved farm management practices (food crops, tree crops and livestock) • Improved access to inputs • Improved access to finance • Improved access to information on agriculture technology Outcome 2: Profitable agriculture enterprise, consisting of • Improved access to markets • Increased price and quantity of product sales • Increased availability of quality products by improving post harvest management and processing
Beneficiaries	:	A total of about 12,500 farmer families in 90 villages or approximately 62,500 people as beneficiaries (approximately half are women) of whom: • Forty seven villages are in North Central Timor District (Timor Tengah Utara), NTT, continuing work with the existing 5,000 farmer families in 40 villages plus expansion in seven villages with an additional 2,000 HH (totalling of 7,000 HH). • Ten expansion villages are in Belu district with 1,300 farmer families. • Three expansion villages are in South Central Timor (TTS) district with 200 families. • Thirty villages are in Nagakeo, Flores Island - NTT, continuing work with the existing 2,500 farmer families plus expansion to an additional 1,500 families[1].
Location	:	North Central Timor District, Timor Island Expansion of the YMTM program in Nagakeo, Flores Island Expansion into other Timor Island Kabupatens (Timor Tengah Selatan and Belu districts) Collaboration with, and training of, NGOs undertaking similar agro-forestry upland activities elsewhere in NTT plus in NTB province.

[1] By the end of the project YMTM will be working with 65% of total HHs population of project village area.

Duration	:	Three years, from 1 January 2011 – 31 December 2013
Cost Estimate	:	AUD2,500,000 (two million and five hundred thousand AUD)
Implementing Organizations	:	Yayasan Mitra Tani Mandiri (YMTM), Timor Island, NTT, Indonesia, Consulting, advisory and services provided by Staff London School of Economics.

I. BACKGROUND

The ANTARA-AusAID and YMTM-TTU program of 'Sustainable Agriculture and Fair Marketing' will come to an end in December 2010. Data analysis of the program achievements undertaken using the internal M&E system and an external independent evaluation by an ANTARA consultant found strong evidence that the program was well implemented and achieved significant outcomes. Such outcomes were improved sustainable incomes among more than 5,000 poor farmer families, increased agriculture production, increased value added, higher farm-gate prices and strengthened farmer organisations.

After the three-year (2008-2010) program implementation, there are still strong interests and needs from the communities to continue and to expand the program into new areas. This is reasonable because the program was able to deliver real benefits for them. Such benefits can become sustainable if the program provides support for a period of a minimum of five years. The success of the activity conducted by YMTM has been acknowledged and awarded an Equator Prize 2010 by United Nations Development Programme for poverty reduction and biodiversity. Some critical features of the program need to be strengthened, including increasing capacity of formal farmer organisations as agents for change to sustain the increased incomes and development of new innovations for scaling up of the program benefits to reach more communities. This proposal design went through four development stages namely; analysis of achievements and what areas can still be improved, identification of community priority needs through literature review and community consultations, proposal draft design and consultation with District Government and communities. Based on the identified priority needs and vulnerabilities of the communities, the proposal design took a *holistic approach* integrating the use of available assets to reduce poverty, to increase incomes and ensure environmental sustainability.

II. PROBLEM ANALYSIS, POTENTIALS AND CHALLENGES

Nusa Tenggara Timur is one of the poorest provinces in Indonesia. In 2008, the poverty rate reached 25.7% (*NTT in Figures 2009).* In particular, the total number of poor families in TTU was 32.7%, or the 7th rank, among the districts in NTT. This condition becomes more threatening as the resource poor region faces the current climate change patterns. Therefore three key problems to be addressed by the program are:

- Food insecurity problem is chronic and seasonal in the poorest areas in TTU and Nagekeo, and seasonal in better agricultural areas. The problems are exacerbated periodically by shocks such as crop failure, pests and diseases and erratic rains.

- Communities are vulnerable to environmental degradation and climate change impact. Both the short rainy season and the long dry season are becoming more pronounced; plus erratic timing of rains, now more subject to destructive variation.

- Poor agricultural production and management (especially post-harvest storage) and low cash incomes amplify the communities' vulnerability to environmental degradation and climate change impact.

Food insecurity remains a dominant issue in East Nusa Tenggara. The high cost of basic staples food and the unavailability of stored food supplies during the months just before the annual harvest at the end of the rainy season have become major issues for rural people in East Nusa Tenggara. In more highly developed areas of the world, only 15% to 30% of a household's budget is typically spent on food. All Indonesians (poor and non-poor) spend a much higher percentage of their total expenditure[2] just on food. The range in Indonesia's better-off provinces is from a low food budget-share of 40% (Jakarta) to a middle range of 55%-60% (Java provinces for instance). The poor, especially those in the eastern islands, must allocate a very high percentage of their total expenditures to food. The food portion of the household budget of the poor, by province, was as follows in 2004: NTB (71%), NTT (70%), South Sulawesi (74%), SE Sulawesi (73%), and Papua (69%). This frequently used key indicator, called the Engel coefficient[3], is a surprisingly accurate indicator of poverty; the higher the allocation to food, the poorer the family. For those who cannot afford sufficient food, the result is malnutrition, especially for children under the age of five. When so much is spent just on food, there is little left for expenditures on health, education, shelter, clothing or transportation. The high cost of obtaining food is still certainly a major concern of all Indonesians. It is especially important for the rural poor of East Nusa Tenggara.

There are both potentials and problems facing agriculture and food supply in East Nusa Tenggara. These potentials can be exploited and can support the success of the program. Some of these potentials include experience and lessons learned from the achievements of the now-finishing ANTARA-AusAID program, existing natural resources, available water sources, land ownership of around 3 hectares per family (although much of this is steeply sloping, with thin top-soil cover, and low nutrient status), current strong collaboration with various stakeholders, regional autonomy for districts and village governments, support from the private sector, international concerns about climate change impact and the strong internal management and technical skills of YMTM as an organisation.

By way of contrast, some challenges that may inhibit the success of the program include the following: unfair market monopoly practices by collection traders for farm produce, poor policies such as local levies and taxes (called "retribution" in Indonesia) many of which are illegal, regional climate patterns that have been changing from year to year, poor public infrastructure development and maintenance, and mining concessions for manganese that leads to destruction of the environment.

Present existing subsistence farming in Timor is based on slash and burn cultivation of maize and cassava, with some upland rice, peanuts, pumpkins, mungbeans, and other vegetables. Existing farmer practices cause environmental degradation in NTT. Floods and erosion are commonplace, but streams dry quickly because there is little remaining vegetation to catch or hold moisture in the catchment areas. The agro-silvo-pastoral introduced by YMTM in TTU has been proven to improve soil and water management systems by terracing the slopes with tree legumes (calliandra, leucaena and gliricidia) and minimum tillage. The legume trees planted at the edge of

[2] Expenditure is used, not income. The Central Bureau of Statistics measures expenditures on all items. For the poor, expenditure is usually identical to income (cash and in-kind) in that all income earned is expended (i.e. no savings).

[3] Named for Friedrich Engel

terrace stabilizes the soil and prevents gully and surface erosion. Biomass from the tree legumes is then fed to the cattle and some put back into the soil to enrich its organic content. Animal manures is used for organic fertilizer to increase crop productivity. Acknowledgement of this initiative has been made by the Governor of NTT during his speech on the commemoration of National Independence Day 2010.

III. What YMTM has Achieved and Justification of Expansion

The integrated livelihoods activities implemented to the community in Timor Tengah Utara and Nagekeo districts clearly demonstrated that support provided by YMTM TTU and YMTM Flores reduces poverty. The 5,493 households (HH) in 40 villages in TTU have benefitted through several activities such as sloping land tree cropping, cattle fattening and saving, loans groups and collective marketing. The program demonstrated that farmers who adopted cattle fattening livelihood systems (forage legumes production, cut and carry feeding system, improve cattle management and collective selling through farmer's groups) received a gross margin income of approximately IDR2 million/HH/year for the cattle enterprises alone. Whilst, sloping land livelihood systems based on tree crops (candle nuts, mahogany, Gmelina) were adopted by more than 5,000 households on 1,600 hectares, with anticipated return exceeding those of cattle fattening. In October 2010, more than 1.3 million income generating trees had been planted under this activity.

Most farmers work comparatively small plots, or own very small numbers of livestock, and are unable to market small surpluses profitably. Collective marketing offered farmers the possibility of selling their goods at higher prices. Typically, farmers' organisations with assistance from YMTM, selected marketing cadres to collect information on current prices from traders, and negotiated for higher prices on farmers' behalf. In Nagekeo, for example, joint marketing of established tree crops (cashews, copra and candle nuts) increased combined earnings for the participating five villages by 20% (up to IDR1.0 billion (AUD125,000) from IDR0.8 billion (AUD100,000).

Justification to extension – an Independent Completion Review of ANTARA Program and a cluster evaluation conducted by an economist with a technical understanding of agriculture concluded that income generating activities implemented by YMTM would be sustained. For example, the financial analysis showed that the return from sloping agriculture livelihoods systems is almost 14% for the vegetable crops. Also, field evidence showed that neighbouring communities that were not participants in ANTARA were adopted the community development building approach by YMTM. This evidence showed that there are still strong interests and needs from the communities to continue and to expand the program into new areas. This is reasonable because the program was able to deliver real benefits for them.

IV. Program Logic

How the program will deliver its End of Program Outcomes is structured in a logical framework as shown in the Table 1.

IV.1. The goal of the program is: Poverty reduction of rural communities by increasing incomes and improving food security in marginal areas through sustainable agro-silvo-pastoral systems and equitable development in Timor and Flores Islands in Nusa Tenggara Timur Province – Indonesia.

In this context, agro-silvo-pastoral systems mean a land use systems developed on marginal agricultural land where woody perennials (silviculture) are used on the same land-management units as agricultural crops and/or animals, in some form of spatial arrangement or temporal

sequence. These systems are an integrated model of production and conservation based on silvicultural practices complementary to pre-existing agricultural activities.

It is important to note that the increased incomes of rural communities are measured by changes in net income and changes in food security through changed agriculture production. This reflects the focus of many farmers who are on subsistence farming rather than producing for markets.

VI.2. End of Program Outcomes (EOPO)

The End of Program Outcomes are (i) Increased agricultural production and larger cultivation area and (ii) Profitable agricultural enterprise and increased added value of agricultural product. In order to achieve the End of Program Outcomes, the program will be differentiated into two layers, namely intermediate and immediate outcomes, as follows:

VI.3. Intermediate Outcomes

Intermediate Outcome 1.1 is: Adoption of better faming skills and technology

This outcome will be achieved if farmers get better access to information and technology and utilise quality agricultural inputs.

Adoption of better farm practices is a key factor in increasing farm productivity. Various channels can trigger better adoption including farmers themselves, public and private extension and research institutions, as well as traders or supply chain actors. The program will attempt to work through all channels to develop efficient information delivery. Key considerations for selection of the channels are: effectiveness, efficiency, outreach (particularly to the marginalised) and sustainability, as well as gender equity.

Table 1. PROGRAM LOGIC

WHO	Outputs (refer to ANNEX 1)	Outcomes			Goal (Impacts) (Refer to ANNEX 4)
		Immediate	Intermediate (Refer to ANNEX 2)	End of Program Outcomes (Refer to ANNEX 3)	
Farmer's cadres in the target areas Field staff	1.1. Trained Farmers in agriculture management and technology 1.2. Farmer access to agriculture inputs	Utilise quality agricultural inputs (seeds, fertiliser, etc)	Adoption of better farming skills and technology	Increased agricultural production, yield and larger cultivation area	Increased incomes Improved Food Security (Availability, Accessibility and Utilisation)
	1.3. Linkages with agricultural information, research institutes, university and other NGOs	Better access to information and technology			
	1.4 Saving and Loans (UBSP) groups and cooperatives established	Utilise available resources (Finances, Saving and loan groups)	Better access to finance		
Field Training Centre participants	1.5. Trained farmers and NGOs staff supported by various Knowledge information produced • Leaflets & modules for farmers • Various knowledge products (references for AusAID use on other rural development program/policy	Better capacity of farm activity planning and skills Available Trainers	Demonstrated adoption of farming practice of YMTM business model		
Marketing cadres Farmer Associations	2.1. Market information available 2.2. Trained marketing cadres 2.3. Marketing groups and networks established 2.4. Trained farmers in post-harvest management and processing	Established linkages between farmers and traders/buyers and government information agency	Better farm gates price and farmer's groups are able to bargain and to market their products collectively Quality of product sold (grading, measurement) Increased added value of agricultural product	Profitable agricultural enterprise	• Improved health status • Improved wealth • Reduced Poverty

The following activities will be delivered in order to increase adoption of better farming skills and technology.

- Providing training to trainers (village cadres and field facilitators) and then both of them can work together with farmers/farmers groups to apply:
    - Stabilising steep upland slopes through introduction of agro-silvo-pastoral farming systems. These will lead to a gradual transition from dependence upon annual food crops (grown under slash-and-burn farming technique on the steep slopes) to dependence upon longer term tree crops. Organic composted and enriched farm-yard manure are used.
    - vegetable growing using farm-yard manure,
    - water harvesting (small *embung* check dams),
    - fattening of beef cattle and improved its marketing,
- Facilitate the linkages to agricultural inputs providers for seeds, fertilizer, livestock, etc.
- Facilitate the linkages to information on agricultural technology, includes improved systems of communicating and extending agricultural information and strengthened local agricultural institutions and services (research and extension), private and government.
- Providing appropriate, applicable demand driven agricultural technology results through a series of trainings.

Intermediate Outcome 1.2 is: Better access to financial services

Saving and loans groups (UBSP) activities protected household's income from loan sharks. Small loans borrowed by the member of saving and loans groups are used to cover household expenses relating to education, housing, health and social needs as well as for productive purposes. Money lenders (loan sharks) typically charged between 20-30%, so that repayments became a significant burden on household accounts. This made increasing the number of households with access to affordable savings and loans services critical.

The following activities will be delivered in order to have better access to financial services:

- Establishing new saving and loan groups (UBSP) and strengthening the capacity of existing UBSPs and cooperatives to reduce dependence upon money-lenders who charged interest rates of 20% to 30% per month.
- Providing training on household management economy, microfinance, entrepreneurship and financial management UBPS/cooperative.
- Marketing networks and groups are established, including improved linkages between farmers and buyers, resulting in higher farm-gate prices.
- Marketing cadres are trained.
- Better access to market information by collective marketing groups, including market price dissemination information systems developed.

Intermediate Outcome 1.3 is: Demonstrated adoption of farming practice of YMTM business model

During 2008 and 2009, the activities of YMTM drew the attention of surrounding villages and other less-experienced NTT NGOs who asked YMTM to train their people. These impacts were unintended and were quite positive. For instance, at no extra cost to the expiring project, eight surrounding villages picked up some of the YMTM techniques and organised the sale of their livestock through farmers' associations that sought higher prices. Other NGOs from around NTT have sent staff members for training – by early 2010, a total of 90 people (including 25 women) had attended training sessions. These include people from YTNF, Delsos in Ruteng, Yakines in

Labuan Bajo, Plan Indonesia in TTS, Oxfam's partners and even from foreign countries: World Neighbours in Oeccusi (East Timor, *Timor Leste*) sent their people to be trained. A field training centre will be established to accommodate the demands to train farmers.

Trainees will be invited for short courses from other parts of East Nusa Tenggara and other provinces such as West Nusa Tenggara, Sulawesi, plus the neighbouring independent country of East Timor as appropriate and practicable. Socially oriented training will be offered on motivation, group formation, participatory planning and monitoring methods, participatory decision making among other topics. Technical training will be conducted on upland agricultural techniques, cattle breeding and husbandry, livestock feed types and seed sources, agro-forestry techniques for both fast-growing timber species and plantation/estate tree crops, post-harvest processing and storage techniques to prevent current unacceptable high loss rates.

Intermediate Outcome 2.1 is: *Increased price and quantity of agriculture product.*

Most of the farmers cultivate small plots, thus producing small amounts of quantity to sale or raising small numbers of livestock. Consequently, they are unable to market small surpluses profitably. Collective marketing through farmer association offered farmers to have better bargaining position and the possibility of selling their goods at higher prices. Farmers' associations, with assistance provided by YMTM selected marketing cadres to collect information on prevailing prices from traders, and negotiated for higher prices on farmers' behalf. Currently, collective marketing is organising marketing of cattle, cashews, tamarind, candle nuts, copra and others. The joint marketing is able to increase the prices of commodities received by farmers at 6 – 10% higher than the prevailing prices.

The following activities will be delivered to achieve the increased price and quantity of agricultural product.

- Strengthening farmer groups and farmer association members by providing training to marketing cadres to be able to do market investigation and collective marketing
- Facilitate the linkages to local and interisland traders/buyers

Intermediate Outcome 2.2 is: *Increased added value of agricultural product* by post-harvest/ processing management

The majority of farmers in NTT are subsistence farmers. Maize is a key crops and the staple food of the population. The traditional practice of storing of maize by farmers in NTT causes a substantial loss of about 30-40% of the harvest eaten by weevils, mildew and rats. Storing shelled maize in sealed, airtight containers can keep the maize for two years with minimum loss due to weevil and rat attacks.

Increased availability of quality product by engaging post-harvest management and processing is required to achieve increased added value. The followings outputs are expected to achieve the outcomes.

- Trained village cadres and farmer groups member to apply post-harvest management (storing agriculture products and food processing of banana chips, cassava chips, etc and packaging of the product)
- Facilitate the linkages with university, research institution and other NGOs who work for post harvest technology Improved access to post harvest technology (storing, processing)

All of these outcomes will contribute to the improvement of the socio-economic condition of target communities.

Approach and Strategy

Two of the four pillars of the Australia-Indonesia Partnership (AIP) are in-line with the proposed program, namely Pillar 1 – Sustainable growth and economic management and Pillar 3 – Investing in People. Of the five provinces identified by the AIP as priority provinces, NTT is one of the priority areas to be supported.

The program approach is pro-poor, aiming to reach rural and marginalised communities and to put sustainability as the main priority of project implementation. The starting point of the project is taking into consideration and understanding the local systems and raising the question why the system does not come up with a solution. The next step of approach is searching for opportunities through local systems together with other stakeholders who have a stake in the development of rural communities for replication and scaling up.

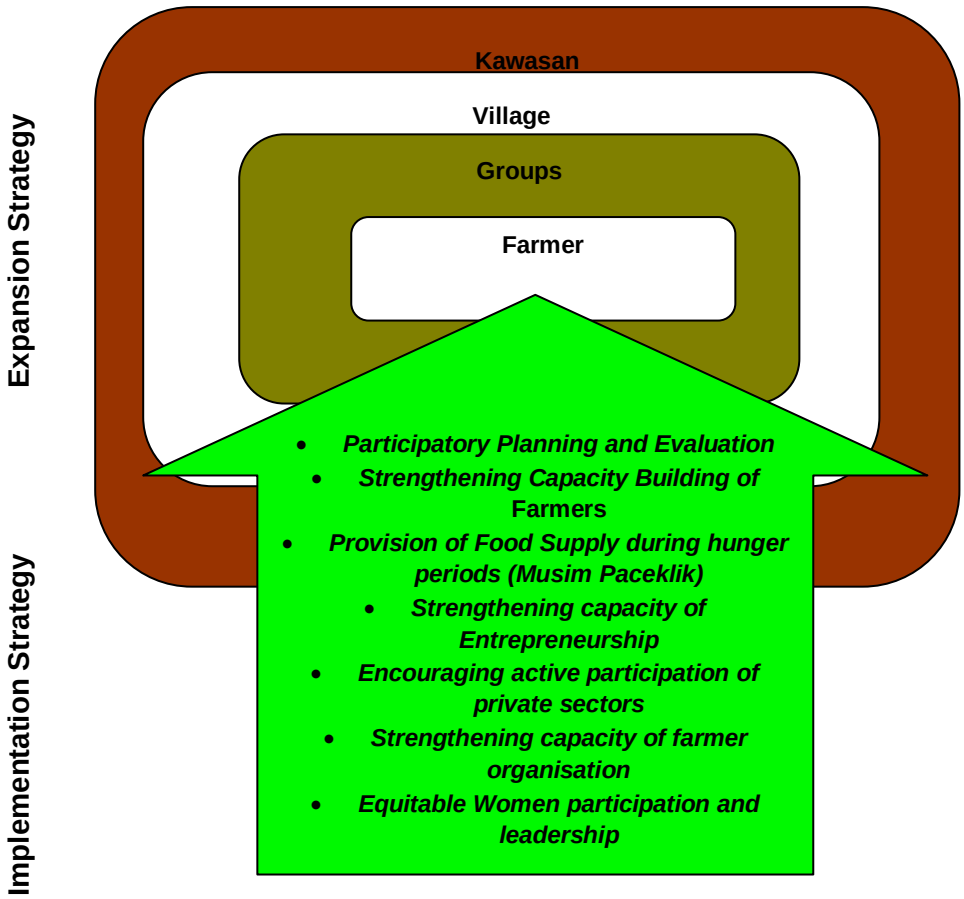
Based on the success and experiences of the on-going program funded by AusAID – ANTARA, strategies adopted are: (i) continuing program implementation and (ii) expansion strategies into new areas. The first is an implementation strategy, which has now been thoroughly piloted and tested and shown to be effective. It includes participatory planning and evaluation, strengthening farmers' capacity, providing various food assistance during emergency situation, strengthening farmers' entrepreneurship, involvement of private sector, strengthening and formalising farmers' organisations, promoting gender equality particularly women participation, leadership and economic status, increasing village government officials' capacity and promoting multi-stakeholder collaboration. The proposed expansion strategy consists of individual approach, group approach, village-wide approach and regional approach. During implementation, these four approaches will be integrated and become mutually supportive to address the farmers' needs in a practical and strategic way. Figure 2 showed the mechanism of program strategy.

Consulting, advisory and training services will be developed in collaboration with the London School of Economics who have, in the past, on a repeated basis provided such services to YMTM, other NTT NGOs and ANTARA. Skilled upland agriculture and agro-forestry economists from the LSE will develop and carry out an information exchange program together with Nusa Tenggara implementers of this activity.

V. RELEVANT RELATED PROGRAMS

The Paris Declaration and Jakarta Commitment require the harmonisation of aid to achieve successful and effective development programs. Therefore, this program will coordinate and build synergy with other existing programs in TTU district that are implemented by the government or other non-governmental organisations. Such programs in TTU include (i) National Community Driven Development Program (*Program PNPM*), (ii) Village Fund Allocation (*ADD*) from Bureau of Village Development (*BPMD*) of TTU district, (iii) natural resource development program by World Neighbors (WN) around Mt. Mutis area, (iv) integrated village development program by Caritas Australia with YMTM, and (v) provincial government's own priority program to develop maize and cattle.

Figure 2: Diagram of Program Strategy



- Program PNPM (National Community Driven Development Program. PNPM program has been implemented in TTU focussing on community health services, education and infrastructure. YMTM, supported by ANTARA-AusAID, conducted an activity in collaboration with PNPM on food security in 3 villages at Sub-district of Miomaffo Barat in 2009. The result showed that this activity increased food security of the community and eventually improved community health.

- Village Fund Allocation (Alokasi Dana Desa – ADD) funded by Bureau of Village Community Empowerment (*BPMD*) of TTU district. YMTM has been working closely with this program since 2009 to provide assistance to the government staff at village level on Planning and Budgeting at village level (APB-Des). The budget allocated to each village varies, ranging from IDR50,000 to IDR100,000,000. The ADD funds in the area where YMTM is helping the village community were also allocated to support collective marketing activity as well as saving and loan activity.

- Value changes of Peanut supported by VECO Indonesia. This program is focussing on value changes of peanut cultivation. YMTM has been engaged into this activity since 2008. The integration of peanut cultivation into tree-crops supporting the agriculture systems introduced by YMTM.

- Natural resource development program by World Neighbors (WN). This activity has been conducted in Mt. Mutis area in collaboration with YMTM. The program is in-line with the proposed program to improve natural resources surrounding the farming areas.

- Integrated village development program by Caritas Australia in collaboration with YMTM. This program is focussing on climate change mitigation to the livelihood of village community. The program conducted the assessment in collaboration with various universities across Indonesia. The result of the study can be used to gain knowledge to climate change and farming system adaptation.

- Provincial Government of NTT priority program on agriculture. The local government developed maize and cattle for its agriculture development priority in 2009–2014. The proposed YMTM program is in-line with local government program by increasing the production and productivity of maize and cattle.

VI. LOCATION AND SELECTION

The program will be conducted in Timor and Flores Islands of Nusa Tenggara Timur Province. YMTM's field work on two islands will focus on a total of 80 villages. The total participants will reach about 12,500 families or 62,500 individual beneficiaries, about half of whom are women. The program will work to strengthen farmer organisations in Belu, TTS and TTU districts as well as West Timor region-wide farmer forums to disseminate lessons learned and reach out to more farmers. The program will also continue the ongoing activity in Nagakeo in western Flores Island and will expand from the current 2,500 participating farmer families to about 4,000 households. By the end of the project YMTM will be working with 65% of total households population in the project village area. The program will also establish links and information exchanges with similar agro-forestry and upland agricultural NGO programs in NTB province[4]. In particular, trainees will be brought from NTB's social agro-forestry sites to NTT for training.

Selection of target locations was made on the following criteria;

- Expressed commitment from communities and government (district and villages)
- Villages with high number of poor families.
- Villages that receive limited support of agricultural technical assistance.
- Poor marketing access but with high potential for market development.
- Availability of natural resources and potential development of infrastructure.
- No overlapping of similar programs with other organizations.

[4] On Lombok Island, these are undertaken by Samanta, Konsepsi and Pusat Studi Pembangunan. A fourth local NTB NGO (Koslata) has worked directly with local government on drafting a local regulation (Peraturan Daerah) which would authorise share-cropping agro-forestry. Samanta and Konsepsi indicate that for large area plantings of agro-forestry, (more than 1,000 contiguous hectares), a *Hutan Tanaman Rakyat* permit would have to be obtained from the central Forestry Ministry in Jakarta. But for smaller plantings, a local *Hutan Kemasyarakatan* (HKM) permit can now be issued directly by a Bupati. Konsepsi stated that in Lombok Tengah such permits for local agro-forestry permits have been processed first by the Bupati and then by the Dinas Kehutanan for 42 agro-forestry groups. This is an important legal development and is relevant for NTT because of large areas of completely denuded uplands still controlled by the Forestry Service and not yet made available for social forestry to villagers.

VII. IMPACT AND SUSTAINABILITY

The impact of the program would be beyond the life of the program, but the program will contribute to a number of long term impacts, which are::

- Poverty reduction of the poor families' in-line with Millennium Development Goals.
- Reduced vulnerable months of food unavailability (just before harvest) for adults and children alike. This predictable, almost annual, shortage leads to malnutrition (wasting, stunting, reduced weight-for-height).
- Reduced malnutrition rate among children under-fives (both wasting, as above, and stunting, reduced height-for-age).
- Reduced infant mortality rate.
- Farmers are able to send their children (boys and girls) to schools.
- Improved communities' health status.
- Farmers improve housing conditions
- Sustainable agricultural model is adopted by other organizations
- Slash and burning farming practice is gradually replaced by sustainable sloping-agricultural-land-technology, leading to agro-forestry farming with diversification of cultivation.

At the end of the program timeframe, it is expected that the communities and YMTM are able to sustain the activities through self supported farmer organisations, application of simple technologies with minimum agricultural inputs, stronger social capital, financial self support, sustainable environment, food security and favourable policies for the communities' interests.

Ownership of the program intervention is crucial to sustainability. Adherence to the strategic approach and principles will go a long way to ensuring that ownership of interventions is achieved. Working closely with government agencies associated with agriculture and community development will be integrated to ensure that interventions are aligned with the Government priorities and building on existing opportunities.

VIII. Budget

The proposed budget is AUD2,500,000 (two million and five hundred thousand Australian Dollars). With number beneficiaries of 12,500 farmer families, the operational expenses for each beneficiary are approximately AUD240 over 3 years project duration (AUD80/HH/year). The budget breakdown of the program is presented in the followings Table 1.

Table 1. Proposed budget of the Development Program for Agro-Silvo-Pastoral in NTT (2011-2013)

Logframe Ref	ITEMS	Cost (AUD)			
		PY1	PY2	PY3	Total
	I. CORE PROGRAM COST				
	A. Salary and insurance (72 field staff, 3 years) + Consulting / advisory services	392,765	392,765	384,735	1,170,266
	B. Field travel cost (supervision, monitoring, etc)	26,140	26,140	26,140	78,419
	G. Procurement (motorcycles, computers, etc)	33,084	-	-	33,084
	C. Procurement - field activities:				
Outputs 1.1-1.3	- Output Objective 1 (Agricultural inputs)	65,868	30,539	26,946	123,353
Outputs 2.1-2.3	- Objective 2 (Marketing, micro finance)	5,389	4,491	4,491	14,371
Outputs 3.1-3.3	- Objective 3 (value added, post harvest, strengthening farmer organisations)	47,904	5,988	5,988	59,880
Outputs 1.1-3.3	D. Training	212,655	198,503	201,497	612,655
	SUB TOTAL PROGRAM COST	**783,806**	**658,426**	**649,797**	2,092,029
	II. MANAGEMENT/OVERHEAD COST				
	E. Salary and insurance (12 admin & management staff)	51,523	51,523	51,523	154,570
	F. Travel cost (Management staff)	3,449	3,449	3,449	10,347
	H. Operational (Office running, car rents, stationery, audits, etc)	81,018	81,018	81,018	243,054
	SUB TOTAL MANAGEMENT/OVERHEAD COST	**135,990**	**135,990**	**135,990**	**407,971**
	TOTAL PROPOSED BUDGET	**919,796**	**794,416**	**785,788**	**2,500,000**

Note: PY = paying year.

IX. MONITORING AND EVALUATION

The M&E system will have three main purposes; continual improvement, assessment of merit and achievements, and promoting lessons learned. The M&E system will combine internal and external approaches. It will integrate *results based performance monitoring*, and *other evaluative approaches* such as participatory evaluation and mixed method evaluation (e.g. survey and rapid qualitative assessment). Performance monitoring (see ANNEX 1-4) is intended to track selected quantitative performance indicators at a periodic intervals (e.g. 6th monthly and annually) and be used for decision making to strengthen performance and accountability to specified audiences such as AusAID and District Government. The approach to the implementation of the M&E system will build on YMTM monitoring and evaluation capacity.

Internally, YMTM will apply a participatory M&E methodology and a result based performance monitoring system, and measurement of baseline and end line condition using either one group evaluation design without control group comparison, or comparison of outcomes between old and new target villages (see ANNEX 5).

External evaluation is expected to provide an objective assessment of merit/achievements as well as exploring what particular conditions and mechanisms that allow the program to achieve (or non achievement) of its intended (and any unintended) outcomes and impacts. All data collected

will be gender disaggregated. The M&E system will be aligned with AusAID's M&E standards[5]. For effective implementation of the M&E system, the program will designate a staff member with extensive experience and skills to manage the YMTM program M&E activities. The program will support the implementation of M&E system by allocating 5% of the total program budget.

X. IMPLEMENTATION ARRANGEMENTS

The program will be implemented by YMTM TTU and Flores with responsibility designated as follows:

The Program Director will be responsible for the overall program management supported by his two deputy directors for economic management and enterprises, and training services, as well as a program coordinator. In implementing the activities, the Program Coordinator will be assisted by program supervisors and field workers. Administration and finance will be managed in a transparent and highly accountable way in order to ensure trust and confidence from staff and donor agencies. Internal and external audit are conducted periodically.

Field facilitators. All field staff should reside in the village with the communities. For efficiency, each field staff will handle 2 – 3 villages. Monthly meetings are conducted to assess field staff performance. Technical assistance will be provided to farmers, groups, and farmer associations according to activity plans proposed on a six monthly basis in farmer forums. In addition to technical assistance, other support includes provision of seeds/seedlings, food storage facilities, post harvest processing and cattle management tools. To support agriculture enterprises, financial support will be provided to farmer groups, cooperative group and well performing farmer associations.

Collaboration and cooperation will be undertaken closely with the various agricultural services present in East Nusa Tenggara to ensure the sustainability of the program in the long run. These include (but are not limited to) the district level Agricultural Service (Dinas Pertanian), the sub-district level agricultural extension offices (Balai Penyuluhan Pertanian), the Flores Island agricultural high school, *Sekolah Pembangunan Pertanian St. Isidorus*[6], located in Boawae, Kabupaten Nagekeo, a number of Timor Island based agricultural NGOs including Alpha Omega, Tananua, and Lensa Mandiri. Links will be established to the de-concentrated (not decentralised) agricultural research system, which, in NTT, consists of the Kupang based main *Balai Pengkajian Teknologi Pertanian* technology testing/research station in Naibonat, which has a branch Sub-Balai in Maumere at the eastern end of Flores. The vehicle for establishing such cooperation and collaboration with local government and the agricultural support system of the Nusa Tenggara islands will be through participating in training courses to be conducted at the training facility to be funded under this grant. The program will support the Medium term of budget planning at village level (RPJMD) to allocate budget for Government taking over the program.

XI. Cross cutting issues

There are ranges of cross cutting issues to be addressed across program interventions. Primary cross cutting issues are linked to the AusAID policies on gender equity, HIV prevention, environment and climate change, child protection and anti-corruption. The following provides a brief overview of the issues related to cross cutting issue.

[5] AusAID Indonesia Country Program – Standards for Monitoring and Evaluation (version 2) – 11 Nov 2010

[6] Contact person: Father (*Romo*) Edy . HP 085 292 752 740

Promotion of gender equality will be a major focus of the program. There is currently substantial inequality of access and opportunity for the number of women working in the agricultural sector. The program will be taken into consideration to ensure that gender issue will be mainstreamed into the overall activities. With support from ANTARA's Gender Technical Assistance Team (GTAT) YMTM took a number of concrete actions to address gender inequality in the community. YMTM undertook to prepare and secure more women's leadership positions in existing micro-finance and farmers' associations. This will see more women in decision-making roles in district-level fora.

The incidence of HIV in NTT is currently relatively low, although there are areas of higher risk. HIV prevention is an issue which require attention and resources of this proposed program. All staff who will be involved in the program must have basic understanding of HIV and the means of its transmission.

The management of the program will ensure the team members who are involved in the activity are fully aware of AusAID's Anti-Corruption Policy. The management will be responsible for developing and maintaining transparent and accountable systems to minimise the risk of misuse of funds.

The management and staff should also be made aware of AusAID Environment Policy, and where relevant ensure that environmental standards are upheld. The management will be responsible for ensuring adherence to AusAID's Child Protection Policy, in particular ensuring that procedure are in place in recruitment of staff management to reduce risk of child abuse by people involved in the program.

XII. RISK MANAGEMENT STRATEGY

The risks associated with Agro-Silvo-Pastoral Project have a wide range of sources included internal and external factors. The internal factors include project management, design of the intervention program, communication and staff management (Annex 4). The external factors include donor actions, political situation and socio-cultural. All of these risks were considered as not having an extreme rate. The focus of the proposed strategies to address these risks is on reducing the likelihood of the risk occurring.

ANNEXES: RESULT FRAMEWORK

ANNEX 1. OUTPUT (PRODUCTS)

No	Statement	Indicator	Current achievement (2007-2010)	Target (cumulative)		
				Yr 1	Yr 2	Yr 3
Output 1.1.	Trained farmers in management and technology	# of farmers	11,425 farmers (40% women	17,000 farmers (42% women)	22,000 farmers (42% women)	25,500 farmers (42% women)
Output 1.2	Farmer access to agriculture inputs	• Amount of quality seeds used • Amount organic manures produced by farmers • # of calves produced/raised (notes: the project only provides approx 50% of the seeds and seedlings as a stimulant to the farmers, and 50% are procured by farmers themselves).	• hedgerow seeds 5000 kg; Food crops 5,000 kg; tree crops 2,000 kg & 40,000 seedlings, 10 species vegetable seeds/year • 120 ton organic manures/year • 200 head/year	• Hedge row seeds 5,000 kg; Food crops 5,000 kg; tree crops seeds 2,000 kg & 40,000 seedlings, 10 species vegetable seeds • 150 ton organic manures • 300 heads	Hedge row seeds 10,000 kg; food crops 5,000 kg; tree crops seeds 4,000 kg & 80,000 seedlings 350 ton organic manures 500 heads	Hedge row seeds 15,000 kg; tree crops seeds 2,000 kg & 40,000 seedlings 650 ton organic manures 700 heads
Output 1.3	Linkages with agricultural information, research institute, universities and other NGOs	# extension workers # of farmer receiving the information on agriculture technology # and type of technology disseminated	• 43 extension workers (8% women) • 11,425 farmers (40% women) • 5 types of technology*	• 60 extension workers (10% women) • 6,000farmers (42% women • 6 types of technology*	• 70 extension workers (10% women) • 10,000 farmers(42% women • 8 types of technology*	• 80 farmers (10% women) • 12,500 farmers (42% women 8 types of technology*

No	Statement	Indicator	Current achievement (2007-2010)	Target (cumulative)		
				Yr 1	Yr 2	Yr 3
Output 1.4	Saving and loans and cooperatives established	# saving and loan groups	• 40 UBSP	• 50 UBSP*	• 65 UBSP*	• 80 UBSP*
Output 1.5	Field Training Centre: Trained farmers and NGOs staff and Knowledge Information produced (leaflets, modules, etc) and Various knowledge products (references for AusAID use on other rural development program/policy	# of trained participants	In average the centre trained 200 pax per year	• 300 trainees	• 500 trainees	• 700 trainees
Output 2.1	Access to market information by marketing groups	• # farmer associations providing updated commodity price information on regular basis	5 associations	6 associations*	7 associations*	8 associations*
Output 2.2.	Trained marketing cadres	• # of cadres trained • # of farmers trained	324 marketing cadres (40% women) 4,600 farmers (41% women)	400 marketing cadres (42% women) 5,500 farmers (42% women)	500 marketing cadres (42% women) 5,500 farmers (42% women)	600 marketing cadres (42% women) 5,500 farmers (42% women)
Output 2.3	Marketing groups and networks established	• # marketing associations for collective marketing • # farmers participating in collective marketing • # traders involved	5 associations 4,600 farmers (41% women) 6 traders	6 associations* 6,500 farmers (42% women)* 7 traders*	7 associations* 9,500 farmers (42% women* 9 traders*	8 associations* 12500 farmers (42% women* 11 traders*
Output 2.4	Trained farmers in post harvest management and processing	• # of farmers trained • # of farmers using recommended post harvest technologies	893 farmers (50% women) 693 farmers	1,100 farmers (60% women) 900 farmers	1,500 farmers (60% women) 1,350 farmers*	2,000 farmers (60% women) 1,800 farmers*

ANNEX 2. INTERMEDIATE OUTCOMES

Statement	Indicator	Baseline	Target
1.1 Adoption of better farming skills and technology	• Farm size per family • # and % of farmers applying applicable technology (assessment using pre-determined checklist – see Annex 6)	• 0.3 hectare per family • 7,500 families	• 0.45 hectare per family • 12,500 families (increase by 66%)
1.2 Better access to financial services	# members # and amount of saving per person • Loan Performance	• 3,821 (41% women) • IDR195,000 • 88%	• 5,100 (45% women)* • IDR400,000 • 95%
1.3 Demonstrated Adoption of farming practice of YMTM business model	• % of trainees applying the newly taught technology	• Sample from Nagekeo (60-70% are applying the newly taught technology)	• 70-80%
2.1 Increased price and quantity of agriculture product	• Price gain • Total sale of key commodities	• Prevailing market price (e.g.: Cattle IDR16,000/kg, Tamarind IDR1,200/kg, Peanut IDR7,000/kg) • Rata-rata 200 ton per year for 5 commodities in 40 villages (Peanut, Tamarind, Candlenut, Cashew, and Maize), 400 cattle per year in 40 villages	• In average increase by 5% from the prevailing price. • 450 ton in average per year in 90 villages, 600 cattle per year
2.2 Increased quantity, quality of post harvest product and added value of agricultural product	• Percentage of price difference between commodity and post harvest managed product (including processing. • Total processed commodity • Total commodity stored	• Commodity price (Taro IDR1,000/kg, peanut, IDR7,000/kg, corn IDR1,500/kg, banana IDR4,000/tandan) • 2.8 ton per year (average in 40 villages) • (not started yet)	• 15% price increase • 4 ton per year (90 villages) • 20 ton per year

ANNEX 3. END OF PROGRAM OUTCOMES (EOPO)

Statement	Indicator	Baseline	Target
1. Increased agricultural production and larger cultivation area	• Crops Yield (2 commodities) • Weight gain yield for cattle • # of grown tree crops	• Maize (1.7 t/ha/ yr), Peanut (0.9 t/ha/yr) • 0.2 kg/hd/d • 6.5 million trees	• 30% Increase • 0.35 kg/day • 7.5 million trees
2. Profitable agriculture enterprises	• Benefit Cost Ratio (BCR) • Return on Investment • Net present value		BCR ranging from 0,50 - 0,99 or > 1. < 2 years

ANNEX 4. IMPACT

Statement	Indicator	Baseline	Target
Increased incomes	% increase of households annual incomes against the baseline	IDR4 million /family/year	30% increase of incomes
Improved food security	• Number of food secured month in a year • # and % of malnourished child < 5 y.o	• 8 month per year • 35% of malnourished child	• 11 month per year • Reduced 25% of malnourished child
Reduced Poverty	# and % of people living under poverty line (using government standard)	TTU: BELU: NAGEKEO: TTS:	No target set

Annex 5. M&E Methods

Level of Logic	What Data	Data Collection Methods	By Who	When
Impact	Poverty Level	• Quantitative data on poverty rate using government existing measurement (BPS)	• YMTM Data Officer	Early implementation and final year.
		• Participatory poverty assessment	• YMTM Field facilitators	Early implementation and before activity is completed
	Incomes	• Simple Rapid Rural Appraisal Method	• YMTM team	(3 times) Early, mid and end of implementation.
	Food security	• Simple Rapid Rural Appraisal Method	• YMTM team	(3 times) Early, mid and end of implementation.
End of Program Outcomes (EoPO)	1. Increased agricultural production 2. Profitable agriculture enterprises	• Performance Monitoring System managed by YMTM • Participatory evaluation by farmers (forum petani) • Impact evaluation of trainings (KEQ - what do farmers think is getting better and why?) • Lessons learned evaluation (KEQ - what causes farmers to change behaviour in farming practice)	• YMTM data officer • Farmer Groups • Consultants (External Evaluator)	Participatory evaluation by farmers conducted annually Impact Evaluations of trainings by consultants conducted in the 1st semester of Year 3 of implementation
Intermediate Outcomes	1.1 Adoption of better farming skills and	• Performance Monitoring system • Participatory evaluation by farmers	• YMTM Data officer • Farmer groups	Annually

Level of Logic	What Data	Data Collection Methods	By Who	When
	technology	(forum petani)		
	1.2 Better access to financial Services	• Performance Monitoring system • Review of UBSP financial performance	• YMTM Data officer • UBSP and Cooperative members	Six monthly
	1.3 Demonstrated adoption of farming practice of YMTM Business Model	• Survey from sampled trainees	• YMTM Data officer	Annually
	2.1 Increased price and quantity of agriculture product	• Performance Monitoring System • Time series data	• YMTM Data officer • Field Facilitator	Six monthly (timing with crop season)
	2.2 Increased quantity, quality and added value of post harvest product and added value	• Performance Monitoring System • Participatory evaluation by farmers (forum petani)	• YMTM Data officer • Field Facilitator	Six monthly (timing with crop season)
OUTPUT (PRODUCTS)	All Outputs (quantitative measures see annex 1)	• Performance Monitoring System	• YMTM Data officer • Field Facilitator	Six monthly

Annex 5. Risk Management

Source of risk	Risk event	Impact on activity	Risk Level	Risk Treatment	Responsibility of whom to address
Internal Organisation					
Capacity	Low capacity of the implementers to manage grants	Lack of financial accountability	M	Provides up-front training on financial management prior to mobilisation, monitor finances and undertake regular audits	YMTM Director and Finance Manager
Design project	Design of the program is not suitable to the area	Outcomes adversely impacted	M	Prepare other alternative design (B-alternative)	YMTM Director and Deputy
Management	Lack of ownership among stakeholders	Sustainability adversely impacted	M	Establish win-win situation with stakeholders at the commencement of program and formalise into agreement	Program Manager and Advisory Panels
Management	Inadequate resources in term of competency or number of team to provide effective management	Outcomes and sustainability adversely affected Quality of program intervention adversely impacted	H	Better planning in resources, review and monitor the resources regularly	YMTM Director and Deputy
Management	Poor communication with other stakeholders	Constrains not addressed, loss opportunities	M	Included communication adviser focuses on this aspect	Program Manager
Management	Staff turn-over causes discontinuity in staff roles and activities	Loss strategic direction	M	Clear documentation of strategic approach and principles of the program. Briefing of new team members	YMTM Director
External					
Change in Political situation	Local Government withdraws the support or a	Loss of support for the intervention program. Adversely impacts	H	Need to build close relationship and to ensure effectiveness of	District Leader

	change in leadership in the district	outcomes, scale-up opportunities and sustainability		communications	
Social	Women are unable to participate equally with men in activities due to existing socio-cultural values	Men and women do not equally benefit from the program and inequities not addressed	H	Gender analysis studies to be included in the program prior. Provide briefings and training on gender analysis to staff involved	YMTM Director Program Manager
Poverty	Intervention activities provided are not appropriate in particular geographic area for poor farmer	Poor farmers do not benefit from the program	M	After initial intervention, review the intervention activities and expand to other locally relevant activities in that particular area suit to the poor.	Program Manager

Annex 6. Checklist of technology adopted by farmers

No	Agricultural technology adopted	Score				
		1	2	3	4	5
1.	Sloping agriculture technique (terracing, hedgerows, alley cropping)					
2.	Integration of tree crops into sloping agriculture (seed selection, type of tree-crops, seedlings and spatial arrangement)					
3.	Minimum tillages technique and organic manures application for horticulture and annual crops.					
5.	Manures utilisation, composting, and organic liquid fertilizer					
6.	Temporal and Spatial planting arrangement technique (rows, alley and relay crops)					
7.	Cattle management (feeding technique, block supplement, health management, animal housing, breeding)					

Notes: this assessment is done by farmer group members (cross assessment among groups) regularly (6-monthtly assessment)