

Case study 3: Indonesia⁹⁶

Name: Basis Data Terpadu (BDT) (translated as Unified Database, UDB).

Overall classification: social registry

Data collection approach: census survey of households pre-identified as poor (but may be moving to on-demand system)

Breadth of integration: integrates data collection and eligibility determination across selected social assistance programs and community health insurance scheme (but data from these schemes is not shared back with UDB, so comprehensive overview of beneficiaries across programs is not possible); increasing integration with national ID database

Depth of integration: integration primarily for targeting purposes; uses external data from national ID database for data verification

Number of individuals registered: 93 million (40 per cent of population)

Indonesia's Basis Data Terpadu (BDT, known as the Unified Database, or UDB) can be classified as a social registry that unifies information for poverty targeting across the country's largest social assistance programs. The UDB database now covers 25.7million households (93million individuals) located in 82,464 villages nationwide (2016), making it one of the largest databases of its kind in the world.⁹⁷ Moreover, Indonesia's publicly available Management Standards define international best practice for accountability in this field.

This case study provides a fascinating example of the heavy challenge that countries face when attempting to develop a new social registry. It is also a good example of how political will and flexibility in design (adopting an iterative trial-and-error approach) can drive the process of integration. This case study was drafted in 2016 and describes how Indonesia's registry was set up at that point in time.

Background and historical evolution

The UDB was established to unify approaches to targeting social assistance programs in Indonesia. The initial proponent of the UDB was the then Vice President, who saw it as a requirement to reach the target of reducing poverty by 8–10 per cent by 2014, as stipulated in the country's Midterm Development Plan 2009–2014. Specifically, the creation of a UDB was expected to:

- » improve program targeting (see for example Presidential Instruction No. 1/2010 on the National Development Priority⁹⁸), as analysis of Susenas (national socioeconomic survey) data showed that many poor families did not receive social assistance programs that they were entitled to
- » lead to better complementarities between social assistance programs — for instance, beneficiaries of the Family Hope Program (PKH) could also receive free health services.⁹⁹
- » The UDB was officially launched in 2011. The evolution of institutional arrangements and data collection approaches for the UDB is described below.

96 Information for the Indonesia case study was collected through (i) key informant interviews with staff at TNP2K, including a phone interview with Julia Tobias, who was formerly involved in setting up the country's UDB (we thank all who participated in the study for their help); (ii) in-country mission by Richard Chirchir between 17 and 30 April 2016; (iii) a review of the relevant literature, including the TNP2K (2015) Unified Data Base Management Standards, available at www.socialprotection.org. The case study was primarily authored by Richard Chirchir.

97 BISP's poverty database in Pakistan includes information on 27 million households and 108 million individuals.

98 'By using the updated data [of UDB], our poverty program can choose the right target with minimum data error and maximum benefit' (Vice President Boediono in the opening ceremony of the Regional Development Planning Meeting).

99 These objectives were also fully in line with World Bank recommendations: 'the current non-unified collection of initiatives may not be the most effective way to protect households' (World Bank 2012b).

Programs that are supported by the UDB

Since the formulation of the UDB, at least five national programs have utilised UDB data:

- » National Health Insurance–Jaminan Kesehatan Nasional (Healthy Indonesia Card–Kartu Indonesia Sehat (KIS)). Launched in November 2014, the program delivers community health insurance cards to the poorest households to receive free treatment in government hospitals. By 2016, the program is set to reach the bottom poorest 40 per cent of households.
- » Cash Transfers for Poor Students–Bantuan Siswa Miskin (Smart Indonesia Card–Kartu Indonesia Pintar (KIP)). KIP provides transfers from central education agencies directly to students or schools once enrolment, attendance and other criteria have been verified. In November 2014, KIP were launched and distributed to 160,000 children of school age.
- » Family Hope Program–Program Keluarga Harapan (PKH). This is a conditional cash transfer providing direct cash benefits conditional on household participation in locally provided health and education services. It is targeted at the poorest 8 per cent of households.
- » Rice for the Poor–Beras untuk Rumah Tangga Miskin (RASKIN). This is a rice subsidy program with the broad aims of strengthening food security and reducing the financial burden on poor and near-poor households.
- » Temporary Unconditional Cash Transfer–Bantuan Langsung Sementara Masyarakat (BLSM) (Family Welfare Card–Kartu Keluarga Sejahtera (KKS)). This is a temporary unconditional cash transfer to compensate for the increase in fuel prices. The program is designed to protect the poor and vulnerable households from socioeconomic risks posed by the changes in national economic policies. KKS were issued to the beneficiaries of BLSM (the poorest 25 per cent of households).

Some of these programs are explicitly envisioned as complementary, with households targeted for some eligible also for others.

Institutional arrangements for the UDB

From 2012–2015, data for the UDB was managed within the Tim National Percepatan Penanggulangan Kemiskinan, known as TNP2K (or the National Team for the Acceleration of Poverty Reduction) — a team under the office of the Vice President, established through the issuance of Presidential Decree No. 15/2010 and receiving extensive financial and technical donor support. However, over the course of 2016, the UDB is being transitioned to PUSDATIN (Data Centre) at the Ministry of Social Affairs (MOSA). This is part of the implementation of a legislative requirement (Law No. 13) which vests in MOSA the responsibility for the collection and maintenance of data on poor households. A task force consisting of the Ministry of Human Development and Culture, TNP2K and MOSA has been established to steer the transition process.

- » Within TNP2K, the UDB was managed by a special unit called UPSPK (Unit Penetapan Sasaran Penanggulangan Kemiskinan or Unit for Targeting and Poverty Reduction). The functions of the TNP2K's UDB unit were fourfold: (i) provide UDB data to line ministries, (ii) provide technical assistance on data use to local governments, (iii) generate M&E reports on data utilisation, and (iv) maintain the website portal. To deliver on these functions, UPSPK was staffed by a team consisting of one data and dissemination officer, one infrastructure and security specialist, one GIS specialist, two on-demand application officers, one administrator and two senior programmers.
- » At MOSA, PUSDATIN is managed by 37 staff: nine employees, 12 staff technicians, three statisticians, one expert who handles maintenance of the data centre, and the rest general staff. MOSA plans to deploy more expertise to manage PUSDATIN. MOSA also plans to develop a comprehensive capacity development strategy to ensure that PUSDATIN has full capacity to (i) ensure the security and administration of the UDB and (ii) provide analysis of the UDB data to stakeholders.

How the UDB is structured in practice

Data sources and linkages

The main data source for Indonesia's UDB is the data collected by the UDB itself (see below). This has become the only source of data for poverty targeting in the country.

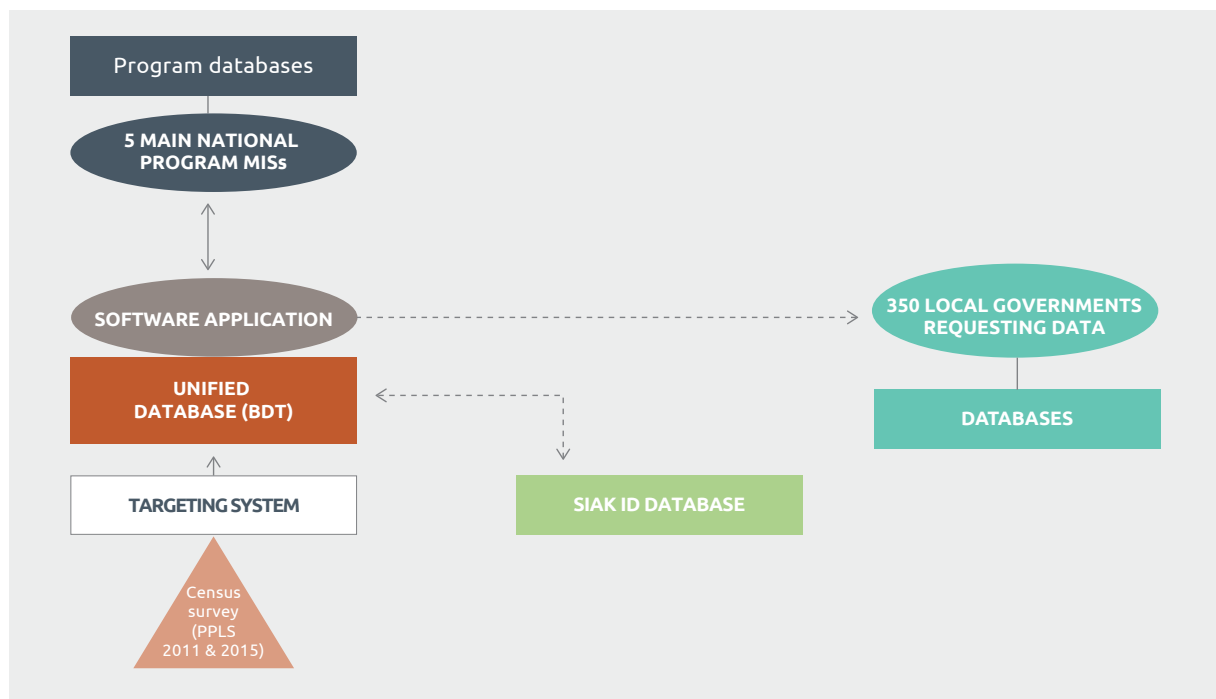
Currently the UDB is not actively linked with any other government databases. However, efforts are now in place for linkage with SIAK, the national ID database at the Ministry of Home Affairs, and its national ID number (NIK). This is a process that has evolved over time.

- » Only 74 per cent of the 2011 UDB data was integrated with NIK, using an algorithm consisting of names and addresses (because NIK was not collected in the 2011 round — see below).
- » In the 2015 data collection round, NIK was collected as a data variable. Some 80 million individuals surveyed had a NIK.
- » The entire database of 93 million records was transferred to SIAK in February 2016 and is due to be linked by August 2016.
- » Going forward, further updates on the UDB database will be run using web services that will be set up between SIAK and UDB.

Currently, Indonesia is also reviewing the MISs of its core social assistance schemes with the aim of enhancing them so as to fully manage and coordinate core operational processes. The strategy will also entail integration with the UDB, given that its data will be dynamically updated in the future.

Figure 14 below summarises the key inputs and outputs of the UDB as discussed above.

Figure 14 Overall structure of the UDB



Source: Developed by authors based on discussions with the Ministry.

Note: Boxes indicate databases; circles indicate MISs; bold lines indicate direct link (e.g. web service access); dotted lines indicate indirect link (batch process, CDs etc.); arrows indicate where information flows in one direction or two directions.

How data is collected and updated

Unlike in any other country, data for the UDB in Indonesia is currently collected by the National Statistics Agency (BPS), which regularly conducts basic statistical data collection through censuses, Susenas national surveys¹⁰⁰ and PODES village potential surveys.¹⁰¹ Despite the potential risks of BPS taking on this role¹⁰², the decision was taken as no other agency or institution would have been capable of collecting data at a national scale.

The first time the BPS was explicitly tasked with systematically developing a 'census' of poor households (Pendataan Sosial Ekonomi) was in 2005, when the reduction of fuel subsidies led the government to develop a temporary unconditional cash transfer, the BLT, aimed at all poor households in the country. BPS conducted another large-scale survey (Pendataan Program Perlindungan Sosial, PPLS) to update the data when the government was preparing to implement a second round of the BLT program in 2008. This data collection effort verified information for the 19 million households listed in the 2005 BLT database (Tobias 2013).

The data source for the first UDB was the 2011 data collection for social protection programs, PPLS 2011, which collected data from a significantly greater number of households: 24 million (40 per cent of the population) against 19 million. Given that it would not be cost-effective to do a census of all households in the country (as the UDB focuses on the poor and vulnerable), the households interviewed were selected on the basis of the 2010 census,¹⁰³ which was triangulated with other sources including PODES 2010, Susenas 2010, the 2008 PPLS database, program listings, and local knowledge from communities.

The UDB was updated again in 2015 using a comprehensive PPLS 2015 conducted through a census process. BPS visited and collected data from 25.7 million households (old ones already in the database and new ones identified). The 2011 PPLS and PPLS 2015 survey questionnaire were designed to collect information on variables that are the strongest predictors of consumption (poverty), while maintaining brevity (two pages). Different government agencies implementing social programs were also consulted to ensure that the information collected in the database would accommodate their needs. The PPLS 2011 overall cost of about 20,000 IDR (2 US dollars) for each home interview — conducted by 120,000 BPS enumerators — is in line with international standards (Tobias 2013), as is the comparison between data collection costs and annual program costs of the three largest programs, which amount to less than 1 per cent (World Bank 2012c).

After four rounds of massive data collection (2005, 2008, 2011 and 2015), the Government of Indonesia intends to perform future updates of the UDB following a dynamic, on-demand application (ODA) process (see also Section 4.2.1). A pilot for ODA was commissioned in July 2016 to test how the dynamic update of UDB could work in a decentralised institutional set-up where applications and inquiries are received, verified, and digitised at the local level, closer to people's place of residence. The rationale for setting up ODA is threefold: (i) to identify any exclusion errors; (ii) to facilitate the dynamic updating of UDB data, which makes it more current; and (iii) to enhance the effectiveness of social protection program targeting.

Data processing and targeting

To date (2011–2015), after the database is subjected to extensive validations and consistency checks, BPS transfers the dataset to TNP2K's National Targeting Unit, where data is processed using a proxy means test (PMT) targeting index aimed at categorising households into four levels based on the PMT welfare index. These levels are then used when targeting individual programs, but combined with program-level criteria in practice. For example, RASKIN 'validates' lists within communities,¹⁰⁴ while PKH only targets extremely poor households with elementary-school-age children or pregnant mothers.

100 The National Socioeconomic Survey (Susenas) is conducted every two years.

101 The Village Potential Statistics (PODES) provide information about village characteristics for all of Indonesia.

102 For example, collecting data for the purpose of social protection provision could undermine the statistics agency's perceived independence. Moreover BPS taking on additional data collection responsibilities presents a risk to the quality of core collections due to constraints on resources (e.g. overburdening of the BPS permanent and temporary field force).

103 This is of course a controversial decision and Indonesia is the only country in the world where such an approach has been taken.

104 This process, in practice, often results in distribution of less rice to a much higher number of households. For example, around 55 per cent of all Indonesians report receiving RASKIN rice, even though it is targeted at the poorest 25 per cent (see World Bank 2012c).

How data is transferred

The UDB data is stored using a Microsoft SQL server but it does not currently link to other servers or web services for remote access. Up to now, transfer of data between TNP2K and other government institutions has been done manually using CDs. Ministries or local governments send written requests to MOSA detailing the type of data needed; UPSPK retrieves the data and sends it back in Excel format by email or on disk. For the new ODA system, UDB is building an ad hoc application software. The application will run on an Android platform and will operate offline and online.

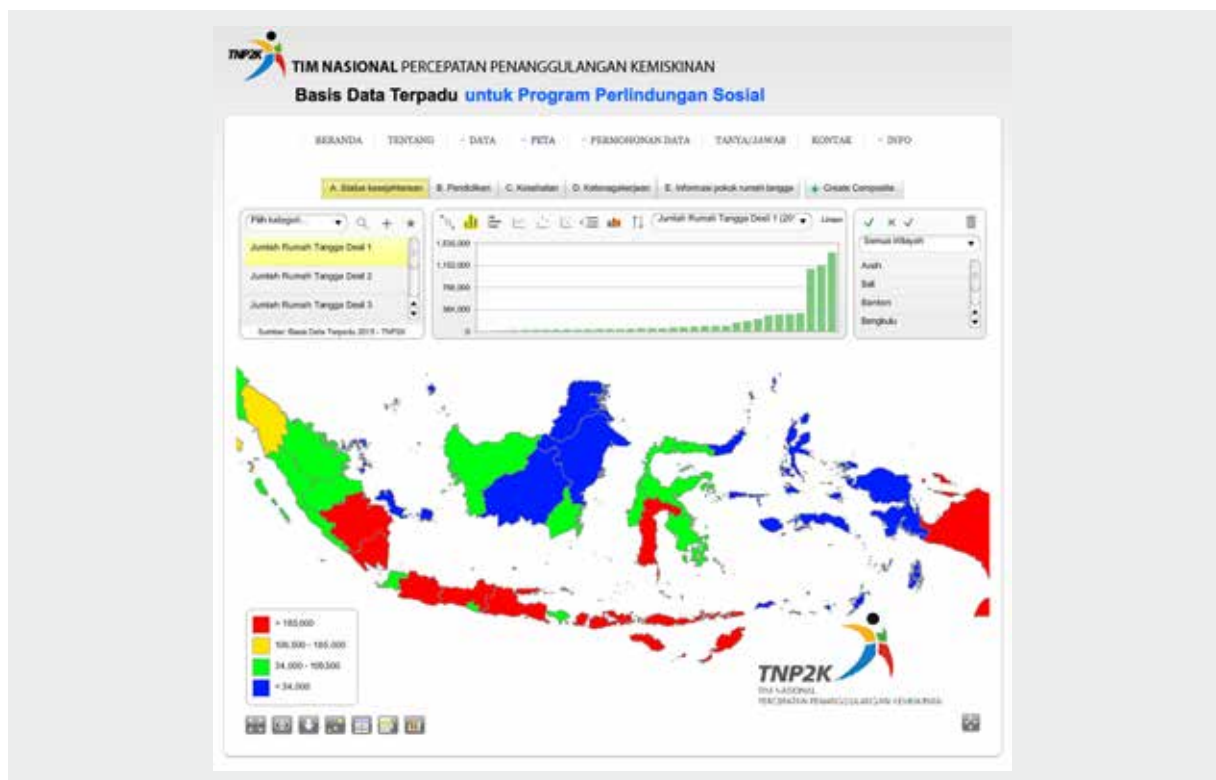
How information from the UDB is used

To promote the use of UDB data, TNP2K and MOSA have put in place an elaborate procedure for requesting, processing, extracting and use of data by stakeholders, outlined in detail in the UDB's Management Standards (2015). Data and information available in the UDB is mostly used to determine the beneficiaries of social protection programs, both at national and local levels. However, since the inception of the UDB in March 2012, UPSPK has handled more than 700 requests for data and more than 1000 requests for technical support — including for new programs and initiatives (e.g. the Programme for Expanding and Accelerating Social Protection (Program Perluasan dan Percepatan Perlindungan Sosial, or P4S). TNP2K staff and researchers from other institutions have used the database for poverty-related research. Independent evaluations of the Unified Database's effectiveness by other research institutions are also being encouraged.

Since January 2012, TNP2K has provided open web access to the data on national, provincial and district distributions for 16 UDB indicators. Summary reports can be downloaded from a publicly available TNP2K web portal.

Moreover, a few initiatives are now being implemented to move to using UDB as the basis for M&E and grievance mechanisms during program implementation. For example, since 2013, TNP2K has been collaborating with the Presidential Work Unit for Monitoring and Control (Unit Kerja Presiden Bidang Pengawasan dan Pengendalian, UKP4) to utilise an existing online complaint-handling website called LAPOR.

Figure 15 Sample of UDB online data



Data security and privacy

For data requests that require personal data, an applicant is required to submit an application letter. This previously went to the head of the TNP2K. However, as of January 2016, the data requests are approved by MOSA, which conducts an interview with the applicant to clarify the details of the data requests. Data is then extracted and packaged in CD format for submission to the applicant with an accompanying cover letter. Overall, to regulate security and privacy of the data, TNP2K uses existing laws and regulations, such as Law No.11/2008 on information and electronic transaction and Law No. 14/2008 on public information disclosure. Data that is considered sensitive is only shared with other government institutions upon request.

Main challenges and lessons learned

Indonesia's efforts to improve and consolidate its system for managing information for poverty reduction programs through a social registry have been successful but still face various challenges, from data collection to utilisation.

With regard to data collection, Indonesia made improvements in the 2011 and 2015 data collection waves compared to those in 2005 and 2008 — most significantly increasing the overall number of households surveyed, using existing data to only survey the poorest households in each community. This approach is innovative but is not risk-free, which is why the government is now exploring ODA data collection. This new approach may also mitigate the current risks of having the BPS lead data collection for the UDB.

Data updating is possibly the biggest challenge faced by the UDB, especially for those programs that target categories or people with 'volatile' status, such as PKH (school-aged children and pregnant women). Even when implementing agencies at program level update their beneficiaries' data, these changes are not fed back into the UDB. This challenge may be soon resolved with the dynamic update and ODA process.

Regarding data use, the future is still hard to predict. Although UPSPK's activities and resources have been largely allocated to serve over 500 local (district and province) government institutions, a lack of formal institutional arrangements and memoranda of understanding with individual program implementers and other government bodies means that data exchange is managed on an ad hoc basis and is not systematic. Moreover, program managers and local governments have shown attitudes of 'complacency' and resistance to the changing approach to targeting in the country (Nazara 2012). Still, the 700 different requests for data from local governments and 1000 requests for technical support (TNP2K 2015) are a good indicator that there is a strong demand for such data — even if the UDB is often seen as a starting point for tailored approaches to targeting.

Interviews with staff involved in the process of creating the database revealed five key learnings based on their experience:

- » Recognising that developing such a system requires an enormous amount of work and extensive capacity (technical, administrative and financial) that is not always available in a country, meaning that donor support can be essential in the development phase
- » Recognising the importance of having a culture of learning that is flexible enough and open to ongoing adaptation. Piloting can take time and money, but it can be essential to creating a shared and commonly accepted approach that is effective and sustainable over time
- » Not fearing, and in fact embracing, complaints and criticism, which are inherent to any system that has targeting as an ultimate goal
- » Getting staffing right, including competitive salaries to attract competent staff with less incentive to move to the private sector
- » Dedicating energy to communications alongside implementation, to increase ownership and transparency.