ISSN: 2598 - 0807
Caturwulan/Trimesterly

Jurnal PERENCANAAN PEMBANGUNAN

Bridging Knowledge to Policy

The Indonesian Journal of Development Planning

Vol. I No. 3 - Dec 2017

Kementerian PPN/ Bappenas

ISSN: 2598 - 0807

Jurnal PERENCANAAN PEMBANGUNAN

Bridging Knowledge to Policy

The Indonesian Journal of Development Planning

Vol. I No. 3 - Dec 2017

Jurnal Perencanaan Pembangunan (The Indonesian Journal of Development Planning)
Volume I No. 3 – December 2017

Address
Ministry of National Development Planning/BAPPENAS
Jalan Taman Suropati Nomor 2, Menteng – Jakarta Pusat, 10310

Email
jpp@bappenas.go.id, jpp.bappenas@gmail.com

ISSN: 2598 - 0807

Jurnal PERENCANAAN PEMBANGUNAN

Bridging Knowledge to Policy

The Indonesian Journal of Development Planning

Vol. I No. 3 - Dec 2017

Contents
Volume I Number 3 December 2017

Special Issue Indonesia Development Forum 2017: Fighting Inequality for Better Growth

Inequality is an issue that continues to be a concern in the midst of rampant and incessant development in various fields. When a country's economy is in high growth, the quality of its success will be seen from the equitable distribution. In the event of a substantial imbalance behind the high economic growth, development can be said to decrease significantly from success rate.

Ministry of National Development Planning/BAPPENAS Republic of Indonesia with Australian Government through Knowledge Sector Initiative held Indonesia Development Forum (IDF) 2017 with theme of "Fighting Inequality for Better Growth" on 9-10 August 2017 in Jakarta.

Bambang Brodjonegoro, the Minister of National Development Planning/ Head of BAPPENAS in his opening speech stated that IDF's objectives are: (1) to accommodate development actors to create innovations in strengthening planning and implementation of policies; (2) Providing policy recommendations based on evidence, knowledge, and quality research; (3) Strengthen multi-stakeholder collaboration in promoting governance and sustainable development practices.

According to Brodjonegoro, the IDF should become a better quality forum through: (1) Searching for new breakthroughs for improvement of national development; (2) As a communications platform, IDFs feature graded practices that are tested at the grassroots level; (3) Sharing international experience relevant to Indonesia's development context; (4) Bring together development stakeholders and be part of development planning.

Call for Papers from May to July 2017 resulted in 555 papers submitted in abstract, extended abstract and full paper. Then the selection team took 44 papers to be featured in an international conference, Indonesia Development Forum 2017.

The Journal of Development Planning (JPP) provides an opportunity for selected authors of papers to submit full papers to be re-selected and displayed on JPP.

Here are 5 papers that have passed the qualification for JPP Volume I Number 3 - December 2017.

The first paper is written by Nugraha Pukuh and Hayu Fadlun Widyasthika entitled "When Growth is Inclusive in Indonesia". The paper analyzes inclusive growth rate in Indonesia by using per capita expenditure data from Indonesian population. Inclusiveness of growth is observed from the Growth Incidence Curve and pro poor growth approach using Poverty Equivalent Growth Rate (PEGR) method. It also sees the effect of growth and income redistribution on poverty change using Decomposition of Poverty through Shapley value.

Palupi Anggraeni, Peter Daniels, and Peter Davey delivered a paper entitled "The Contribution of Natural Resources on Economic Welfare In Indonesia". They try to examine the relationship between natural resources abundance and economic welfare at the national level of Indonesia. Four variables of institutional quality, investment level, education level, and industry value added are considered in the study as moderating variables between economic welfare and natural resource rents.

Ichsan Zulkarnaen presents a paper entitled "Socio-Political And Economic Determinants Of Income Inequality In Indonesia". This paper aims to examine the causes of highly persistent income inequality in Indonesia. In contrast to other previous studies that investigated income inequality focusing only on economic factors, this paper also looks at social and political elements.

Fourth, David Soukhasing, Valencia Dea, and Christie Ruslim delivered a paper entitled "Social Finance and Social Enterprises: A New Frontier for Development

in Indonesia". They try to explore and identify the unique challenges of social investment in Indonesia. There are three key players in social investment ecosystem in Indonesia. Social enterprises, which aim to solve social or environmental problems, are mostly at their early stage and not investment ready. Meanwhile, many investors, with or without intention to invest for social mission, are not willing to fund early-stage enterprises.

Arthur Glenn Maail wrote a paper entitled "Linking Open Data and the Fight Against Corruption in Indonesia". This paper tries to assess the extent to which Indonesia is meeting its commitments towards fighting corruption by applying and implementing the principles and actions set out in the G20 Principles. Hence, the G20 Anti-Corruption Open Data Principles is used as an analytical framework to guide the analysis.

In addition to the 5 papers from IDF 2017 above, JPP also featured a paper written by Sidayu Ariteja who wrote "Demographic Bonus for Indonesia: Challenges and Policy Implications of Promoting Universal Health Coverage". This paper tries to answer the question of how UHC's demographic dividend affects the promotion of UHC of Indonesia. Then, this paper analysis of the effects of demographic bonus based on two specific policies, supply side policy and demand side policy.

This edition is complemented by Mohamad Ikhsan Modjo who wrote an essay entitled "Poverty Reduction in Indonesia: A Brief Institutional History". This essay tries to capture in a limited space the important information about a unique institutional experiment in the policy making process, to address the challenge of poverty in Indonesia. The initiative has been underway for a few years only, and the fact that it has been known that it needs to be a number of guide posts to future reforms of the policy making machinery in Indonesia.

This is a note from the editorial board, with a hope that the papers will enrich the public policy repertoire in Indonesia in the special context of fighting inequality for better growth.

Muhyiddin
Editor in chief
Jurnal Perencanaan Pembangunan
(The Indonesian Journal of Development Planning)

Poverty Reduction in Indonesia: A Brief Institutional History

Mohamad Ikhsan Modjo[1], UNDP - Indonesia Secretariat

I. Introduction

This report tries to capture in a limited space the important information about a unique institutional experiment in improved policy making, to address the challenge of poverty in Indonesia. The initiative has been underway for a few years only, and while those involved are clear in their own minds about what they did and what happened, that knowledge needs to be solidified and kept because it can provide a number of guide posts to future reforms of the policy making machinery in Indonesia. If the information is not written down now it could be lost, and with that an opportunity for significant institutional learning would also be lost.

The challenge of reducing poverty remains one of Indonesia's most pressing issues. Although poverty rates have declined from 23.4% in 1999 to 11.25% in 2014, the number of the population living in extremely poor condition remains high at around 28 million people. That is a relatively large fraction of the population in severe poverty when compared with neighbouring countries.

In addition, a further 30% of Indonesians are considered vulnerable to poverty, which means not only that living standards are very low for a large group of people above the poverty line, of Indonesia, but their vulnerability also implies that a relatively small shock to income and consumption can send those in this group back below the poverty line. Various measures indicate a high degree of "churn" in the numbers of families moving into and out of poverty. The high incidence of chronic poor and the number people vulnerable to poverty shocks underlines the important of both good poverty reduction programs as well as the need for systems of social protection.

The Government of Indonesia (GoI) at national and local levels has developed various anti poverty and social protection programs. However, the increasing numbers of programs have not always corresponded to better welfare and protection for the poor. Many policies were not coherently designed, resulting in gaps of coverage, and also in redundancies where one policy may have crowded out another.

Furthermore, implementation of poverty programs has become more difficult to coordinate. As the numbers of those in poverty have fallen, the efforts needed to address the remaining poor have become more difficult, requiring more complex planning and solutions.

The National Team for the Acceleration of Poverty Reduction (TNP2K) was formed in 2010 as a temporary institutional innovation, to address these problems. TNP2K aimed to develop policy options to improve the coherence of poverty alleviation and social protection policies. It was also mandated to coordinate and oversee the implementation of various poverty reduction and social protection programs as well as apply more advanced techniques for improving their targeting. The idea was to enhance or "supercharge" the whole apparatus of policy making and policy management in an area of high political importance. By implication, key features of the design of TNP2K can be related to the shared understanding of senior officials as to what inhibited and undermined policy management within the traditional bureaucracy. TNP2K was therefore itself the result of earlier "institutional lessons", as well as being itself a likely source of such lessons, for the future.

[2] Mohamad Ikhsan Modjo is a Technical Advisor United Nation Development Programme - Indonesia Secretariat. Email address: mohamad.modjo@undp.org

This report traces the history of the TNP2K, beginning in 2009 when a small group of scholars in Indonesia proposed a special coordinating body to accelerate poverty reduction. It examines the political economy background and context as well as the rational of this specific form of intervention. It then identifies challenges it has faced and the steps taken to respond them. By analysing the nature and the evolution of TNP2K this report will try to contribute to a deeper understanding of how to formulate more effective poverty reduction strategies in Indonesia.

II. The Political Economy Background and the Origins of TNP2K

As stated above, the National Team for the Acceleration of Poverty Reduction (TNP2K) was a GoI institutional innovation intended to analyse and set out policy options to improve the coherence and coverage of poverty reduction and social protection programs. This section presents an overview of the history of TNP2K. It discusses some of the political economy background, the actors and origins of TNP2K, and also explains some of the reasoning behind the initial design of the institution.

2.1 The Political Economy Background

Despite Indonesia having a relatively high number of poor households, the technocratic discourse around poverty issues and "poverty reduction" was not common in the public media prior to the general election in 2009. Poverty alleviation discussion was largely the domain of technocrats and planners at the Ministry of National Development Planning (Badan Perencanaan Pembangunan Nasional – Bappenas). These were the officials responsible for designing policies and coordinating the implementation of poverty reduction programs. Inputs and discussions were provided by limited numbers of research institutes, universities and donors that were helping Bappenas in developing an anti-poverty strategy.

The discourse on poverty issues began to get more public attention when the GoI took steps to raise subsidised fuel prices by an average of 125% in 2005. As a net importer of oil since 2004, the GoI needed to increase domestic fuel prices in order to prevent budget deficit explosion caused by a large step change in the prices of crude oil. For the same reason, the subsidised fuel prices were raised again in early 2008, although later downgraded several times before the 2009 general election.

In order to offset the adverse impact of fuel price increases on the poor and near poor households, the GoI prepared a variety of social compensation programs funded from budgetary saving arising from the reduction of fuel subsidies. These programs included an unconditional cash transfer (Bantuan Langsung Tunai–BLT), a rural infrastructure program and a set of social programs in education and health. In the education sector, the GoI issued School Operational Assistance (Bantuan Operasional Sekolah – BOS) which provided block grants for schools. Correspondingly, in the health sector, the GoI introduced Health Insurance for the Poor (Asuransi Kesehatan untuk Masyarakat Miskin – Askeskin)[2].

However, the rise in subsidised fuel price happened simultaneously with significant increases in prices of some staple food, most notably rice, driven to some degree by the energy-related rise in production costs. The combined price increases of fuel and basic foodstuff caused a double-digit inflation of 17.11% in 2005. At the same time, the compensation programs were only partially effective in protecting the poor and preventing the vulnerable from falling to poverty. This was partly due to problems of coordination in policy implementation by multiple actors, along with problems of targeting the poor. Despite the interventions, the official poverty

[2] BOS later became a permanent social protection program, while Askeskin developed into the Public Health Insurance (Jaminan Kesehatan Masyarakat-Jamkesmas) in 2008. Others social protection programs developed in the first SBY presidency included the National Program for Community Empowerment (Program Nasional Pemberdayaan Masyarakat Mandiri – PNPM Mandiri) and the Family Hope Program/Conditional Cash Transfer program (Program Keluarga Harapan – PKH) (Perdana and Maxwell, 2011).

rates increased significantly from 16.0% in 2005 to 17.8% in 2006. This may not have been the failure that it appears, as the counterfactual is impossible to estimate: we just do not know what levels poverty would have gone to without the interventions that were made. But the result was politically seen as a failure or at least inadequate, and therefore it became a compelling necessity for GoI to do better in future.

At the same time the increase in the number of poor and the subsidised fuel price triggered a public debate on poverty alleviation in the lead up to the 2009 presidential election. It was during this election that a small team of scholars supporting the SBY (Susilo Bambang Yudhoyono)-Boediono's campaign proposed the establishment of a special body to consolidate and improve Indonesia's social assistance and poverty reduction programs to reduce poverty rate to 8% in 2014. The team also proposed that this special body should be placed at the Office of the Vice President in order to increase its effectiveness. From this location at the centre of government it was felt that the group would be more free to generate new ideas on improving social protection programs as well as more able to build cooperation and support from other members of the cabinet for more coordinated implementation.

2.2 The Initial Design of TNP2K and Its Rationale

This idea of a poverty policy coordinating body at the national level was not a completely new concept. During the Megawati Sukarnoputri presidency in 2001, a special committee to coordinate poverty alleviation efforts was first established under the leadership of Jusuf Kalla as Coordinating Minister for People's Welfare. A Coordinating Team for Poverty Alleviation (Tim Koordinasi Pemberantasan Kemiskinan – TKPK) was also in existence throughout the first SBY's presidency. Nevertheless, these earlier bodies accomplished little as far as policy and practical outcomes were concerned. In addition, the idea of placing a poverty policy coordinating body at a very high level had also been previously proposed. According to one of TNP2K's founders, this arrangement was actually suggested at a cabinet meeting during the first term of SBY's presidency, by the Secretary of TKPK at that time[3]. However, it was dismissed as the cabinet was at that time coming to the end of its working life.

Unlike previous bodies, TNP2K was deliberately designed from the outset to be housed within the Office of the Vice President. As stated above, this was intended to expand its convening power and its ability for cross-ministry coordination. This way it might be possible to solve the problem of competing vested interests, as well as the overlapping or conflicting responsibilities between ministries. To some degree this arrangement was also justified by the personality and reputation of Boediono. He was viewed not only as a political Vice-president but also as an able technocrat who understood what had to be done to address poverty issues. Placing TNP2K within the Vice-president's office thus not only facilitated policy coordination but also enhanced its public profile.

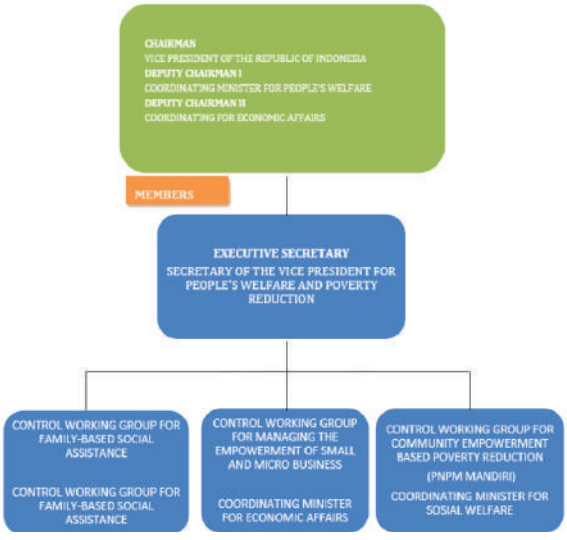
2.3 Structure of TNP2K

The structure of TNP2K is shown diagrammatically in Annex 1. TNP2K is chaired by the Vice of President and assisted by Ministers and Head of Agencies involved in poverty alleviation efforts. As set forth in the Presidential Regulation Number 15 of Year 2010, the Coordinating Ministers for Welfare was appointed as the First Deputy while the Coordinating Minister of Economy and Finance was made the Second Deputy of TNP2K (See Figure 1).

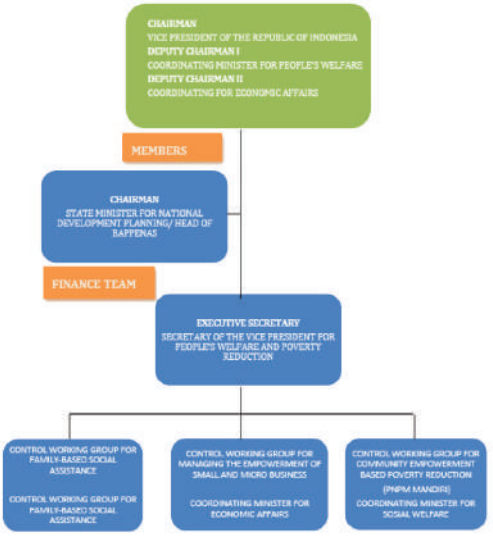
[3] The original idea was to place the poverty alleviation policy coordinating body within the Office of the President instead of the Office of the Vice President.

Figure 1. *Structure of TNP2K*

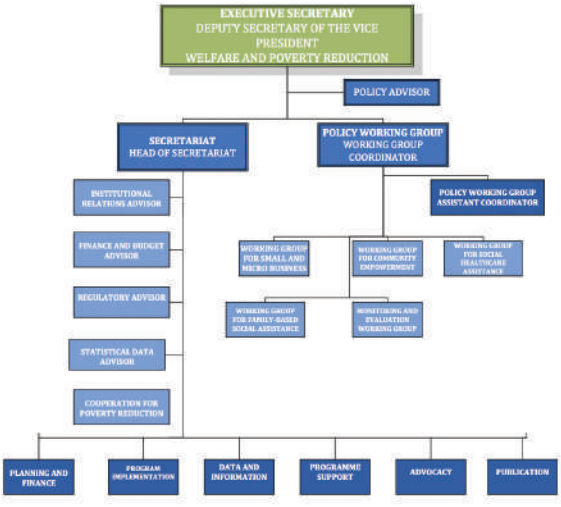
Structure of TNP2K Before 2011



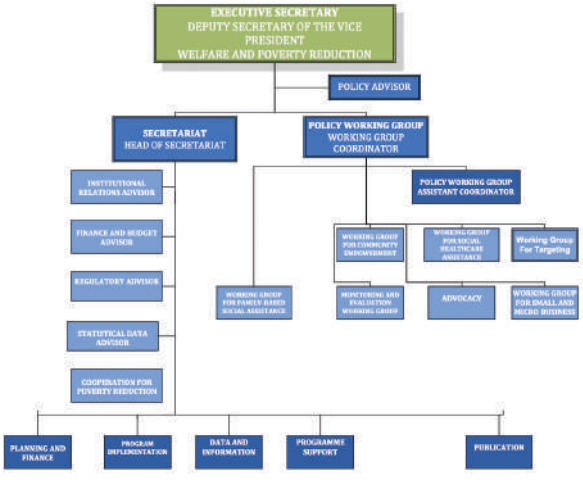
Structure of TNP2K Post 2011



Structure of TNP2K's Secretariat Before 2011



Structure of TNP2K's Secretariat Post 2011



This high level structure has remained relatively unchanged overtime. The only important change made was when the Head of Bappenas was given the role of chairman of the Finance Team. This decision was based on strategic considerations that Bappenas is the government agency responsible for foreign cooperation and has a veto power in foreign funding decisions[4]. Moreover, Bappenas had also closer working relations with donors, and could source and access donor fund more effectively than others.

The high level TNP2K described above is supported by a secretariat headed by an Executive Secretary who is also the Deputy Vice President for Welfare and Poverty. The Executive Secretary runs TNP2K's secretariat on behalf of and reports to the Vice President.

Within the TNP2K's secretariat, there are three basic types of working units, or departments: the Policy Formulation Working Groups, the Taskforce and the Support Secretariat. The Policy Formulation Working Groups are the core professional units of TNP2K. Their purpose is to provide policy advice to the Executive Secretary of TNP2K and through him to the Vice President's[5] Office.

The division into three Policy Working Groups was based on the three "poverty reduction clusters", with a group for each cluster. Clusters reflect the way GoI originally formulated its poverty reduction acceleration strategy with a tripartite division into focus on the individual and family, focus on the community, and focus on poverty alleviation through market organisations.

- Cluster 1–social assistance programs;
- Cluster 2–community based programs, under the umbrella of the national program for community empowerment (PNPM);
- Cluster 3– micro and small medium enterprises (MSMEs) programs.

Within the TNP2K's secretariat structure framework, Cluster 1 was further divided into Family Based Social Assistance Working Group and Health Social Assistance Working Group .This division was intended to simplify the work load and simplify the effort to get buy-in from specialised implementing ministries/ agencies.

In addition, in support of all the working groups there were special technical units for (a) Targeting of Poverty Reduction Programs (Unit Penetapan Sasaran Penanggulangan Kemiskinan-UPSPK) and (b) the Monitoring and Evaluation Working Group for setting up performance measurement systems.

Special Taskforce units were also created in the TNP2K to link the policy advice produced by the Working Groups with the relevant line agencies or local governments and help them convert that advice into operational programs for implementation. For functional reason, the Task Force for Cluster 1 (Family Based Social Assistance) was placed at the Vice President Office under the Deputy Vice President for Welfare and Poverty. Nevertheless, it has coordination line with the Working Group Coordinator and co-located with other TNP2K Secretariat staff in the same building. Cluster 2 Taskforce was located in the Kemenkokesra and Cluster 3 Taskforce was placed under the Coordinating Ministry for Economic Affairs (Kemenkoekuin).

There are also Control Working Groups, which drew members from the relevant inter-ministerial staff for each Cluster of Policy Working Group. The purpose of these Control Working Groups is to facilitate the coordination and engagement between staff at TNP2K's secretariat and relevant staff at the ministries. Except for Cluster 1 which was headed by the Executive Secretary of TNP2K, the head of the Control Working Group is normally the Deputy Minister of relevant ministries. For instance, the head of Cluster 2 Control Working Groups is the Deputy Menkokesra for Poverty Reduction and Community Empowerment.

The Secretariat Support provided both traditional secretariat activities such as

[4] See Perpres Number 82 Year 2007 and Government Regulation (Peraturan Pemerintah, PP) Number 10 Year 2011.

[5] This strategy was first used as a poverty alleviation strategy grouping in Bappenas in 2007 which thereafter adopted in the official Medium Term National Development Plan (Rencana Pembangunan Jangka Menengah–RPJMN).

logistic and personnel support to the TNP2K as well as important coordination roles with national and regional agencies. Specifically the secretariat was tasked to:

- Coordinate with government and non-government organisations, including the private sector and state-owned companies (BUMN) on their poverty reduction support;
- Coordinate with the provincial and district poverty teams and promote the work of TNP2K at the regional level;
- Maintain the database of poverty reduction programs supported by the government (including by sector ministries);
- Maintain the database of poverty reduction programs supported by the non-government organisations;
- Maintain complaint handling mechanisms;
- Provide technical support and administration to the national team;
- Undertake strategic communications and external relations for poverty reduction programs.

This initial structure is shown in Annex 2A, and the structure which evolved from it over time, as is discussed in the following sections, is shown in Annex 2B. It is clear from the task list above that the original TNP2K set out with a broad vision, as well as some particular ideas, of how it would accomplish poverty reduction. This contrasts quite sharply with some of the more recent statements from TNP2K that have defined it more narrowly, and with less range of policy making, as having a mandate simply to improve poverty targeting and the efficiency of some important existing anti-poverty programmes.

In addition to and in parallel with the TNP2K Secretariat, there was created a special donor-funded Poverty Reduction Support Facility (PRSF) designed to enable the TNP2K's organization to be implemented speedily and effectively.

2.4 The Poverty Reduction Support Facility (PRSF)

The PRSF was set up to support TNP2K, in line with the Vice President's request. The PRSF core team included a Team Leader, a Deputy Team Leader for Technical and a Deputy Team Leader for Financial. PRSF staffs were co-located with TNP2K in the same building (but on different floors.) PRSF provides financial and administrative support for TNP2K, as well as support to the commissioning of research activities, surveys, evaluations, pilot studies, conferences and grants as approved by the Facility Steering Committee (FSC).

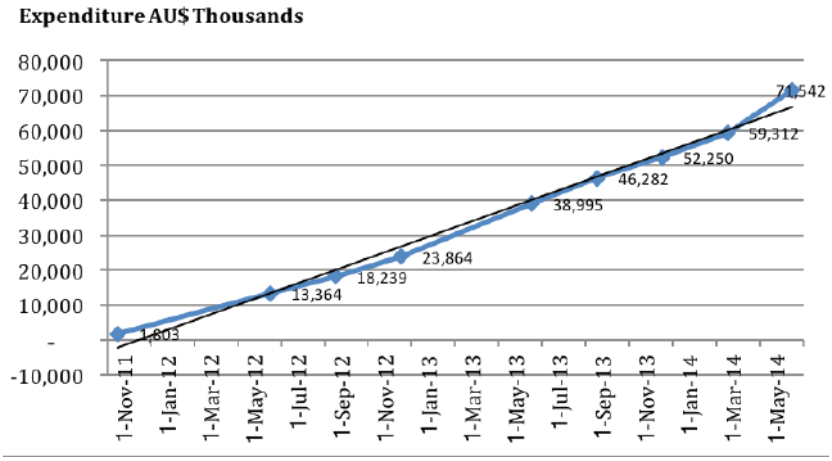
The FSC is co-chaired by DFAT (The Australian Department of Foreign Affairs and Trade) and TNP2K. It was established as a forum for strategic review and decision making on the scope, direction and focus of PRSF. The Steering Committee has to review the major achievements, themes and directions of PRSF, address specific issues and challenges, and formalize the plan for future activities.

In theory, the PRSF was expected by some to be a multi donor support facility but to date it has mainly operated as a conduit for the DFAT (The Australian Department of Foreign Affairs and Trade) funding and technical support[6]. The amounts in support of TNP2K that were offered to the GoI by DFAT were significantly increased early in the life of the project (Figure 2). As a result, there was no strong pressure on GoI or Bappenas to source additional funding from other donor sources[7].

[6] Previously the DFAT funding for TNP2K was channelled through Australian AID (The Australian Agency for International Development - AusAID). AusAID was the Australian Government agency responsible for managing Australia's overseas aid program until 31 October 2013, when it ceased to be an executive agency and was integrated into DFAT.

[7] The United States Agency for International Development (USAID) and the International Labour Organization (ILO) have nevertheless funded some TNP2K activities, mainly for the Cluster 3 Working Group activities. Similarly, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) provided co-funding for some activities to to support BPJS analysis of the Health Working Group.

Figure 1. *PRSF Expenditures*



On one level the relationship between PRSF as a support facility and TNP2K as a reform group operating within the GoI system is quite straightforward to describe and understand; on other levels it is subtler and thus harder to give a crisp picture.

As a general rule, one may say that there are five resources any agency needs to have, to be operational in a government bureaucratic context, and they are: budget, personnel, assets, information, and the mandate or the authority to act. These are the five key "enablers" of an effective organisation. Essentially, PRSF provided "three and a half" of the five key resources namely: budget, personnel, assets, and some of the information requirements. The Presidential mandate and the location in the VP's Office provided the other key asset, which was authority to act. And of course the highly qualified and experienced staff recruited for TNP2K by PRSF themselves embodied a great deal of practical and relevant information. In practice the PRSF strategy was critical to the success of the TNP2K, as the whole scheme would probably have collapsed within a year if TNP2K had been required to go through standard GoI procedures to source the personnel, the operational budget and assets like offices, furniture and computers. From time to time PRSF was able to provide other support of an intellectual and professional nature, but the really important strategic support to the whole venture was in the way PRSF allowed TNP2K to operate successfully outside the system from some aspects as well as being at the same time fully operational inside the system. In comparison with this absolutely necessary support in terms of operational resources, the rest of the PRSF's professional and technical support to TNP2K was an optional extra. From an institutional perspective it was the operational support that was truly strategic in its impact. Without it there would have been no breakthrough.

2.5 Adaptation and Change

TNP2K's secretariat organisational structure proved flexible enough to change over time with organisational needs. For example, in 2012, TNP2K underwent some restructuring. The Secretariat Support was split into three divisions: Publication and Communication, Policy Advocacy, and Office Secretariat. The Division of Publication and Information was devised as dissemination strategies for TNP2K's research

as well as a public relation unit for TNP2K and the government's anti-poverty programs, particularly in the wake of the government plan to cut fuel subsidies in 2012. Further, the policy advocacy unit was created mainly to engage and educate local governments on poverty alleviation policy designs and the unified database (UDB). At the onset, TNP2K' secretariat had also devised a special multi-stakeholder cooperation unit to cater for resources and initiatives from businesses and non-government organizations to participate in accelerating poverty reduction. It was previously thought this unit would become the focal point of coordinating corporate social responsibilities programs, particularly those related to poverty programs. However, it never took off and eventually it was abolished. TNP2K was proving to be a rigorous test bed for fresh institutional thinking. Not every good idea works out, and then the question is what we may learn from that.

As will be discussed in the later sections, the changes in the TNP2K's secretariat structure were a rational adaptation in response to challenges of the poverty reduction efforts particularly the significant implementation challenges represented by the capacity of existing agencies of government. The Vice President took a close interest in the evolution of the TNP2K, its work programme, and its coping responses in the face of implementation difficulties.

PRSF also changed in the course of time. Initially the support facility just provided an absolutely essential basic service to TNP2K in provision of personnel, budget and assets. However, after a review in the second year DFAT altered the support concept in several fundamental ways. The core PRSF staff was expanded to include advisors on Quality Assurance, Change Management, and Social Protection who could provide further intellectual input to TNP2K work[8].

DFAT also reinstated the importance of a second funding window (DFAT Window) to be operated by PRSF in support of poverty related activities in ministries and Bappenas. DFAT Window was actually set up at the very beginning of PRSF as a way for DFAT to be able to give support to poverty programs that might not be covered by the TNP2K work-plan. As far as possible, these activities should be nevertheless closely related to TNP2K's work. The shift here was that in the Strategic Plan PRSF was allowed to interact directly, instead of through TNP2K, with line ministries and Bappenas, in order to support a wider GoI social protection agenda. AS TNP2K focused down on the practical problems of achieving results in some key areas of poverty redressal DFAT at the same time gave itself some capacity to widen the scope of policy impacts through the second window arrangement.

Neither of the above changes was particularly welcome to TNP2K; this change of emphasis was not support they felt they needed. However, the changes in PRSF clearly reflected DFAT concerns about the direction of the project. DFAT wanted to ensure that the operation remained true to the original high level TNP2K concept of including other ministries and Bappenas, hence the second window, and also wanted to ensure that standards of good practice were maintained by TNP2K in areas of policy design and implementation, many of whose staff were highly trained academics, but had little actual experience of policy management. DFAT had legitimate concerns but the way these were met, through the changes in PRSF, may represent an institutional "second best" approach. The first best approach would have involved a more strategic level of discussion between DFAT and TNP2K, and an agreement on revised aims and approaches. But the institutional mechanism or platform for such a discussion had not been created in the design. The FSC arrangement was for steering PRSF only.

The next section discusses the stages of development, challenges and responses of TNP2K.

[8] PRSF core team was restructured twice. Once following the budget increase in Amendment 2 in July 2012 with more operations staff. Then after the inception phase in May 2013 when PRSF strengthened its technical capacities in Change Management, Social Protection and Quality Assurance.

III. TNP2K: Stages of Development, Challenges and Responses

The poverty rate (the percentage of Indonesia's population below the arbitrarily set poverty line) declined from 13.33% in March 2010 to 11.25% in March 2014, covering the first four years of the SBY administration. TNP2K's direct responsibility for this result is hard to assess, although with time it may become clearer. The number of poor people declined from around 31 million to 28 million, meaning that an average 750 thousand people moved out of poverty each year. While positive, this result was below the targets that had been announced by SBY in 2009. However, this result was achieved despite the slowing down of Indonesia's overall economic growth over the period, as well as some specific economic challenges that confronted the economy. It is also evidently harder to maintain any given rate of poverty reduction as the overall numbers in poverty decline, leaving behind a shrinking pool of those families and households that are more embedded in poverty[9].

TNP2K was forced to build both its structure and its activities in accordance with the changing and dynamic requirements of poverty alleviation in Indonesia. The first major challenge was of course to build the TNP2K Secretariat organisation itself, starting from practically zero in early 2010. The TNP2K's secretariat led by the Executive Secretary responded to this challenge by quickly setting up and staffing the organisation, inviting the best talents to strengthen the organisation and seeking assistance from external donors. Here the support of PRSF was critical to the speed of the process. The second major challenge was to develop a unified database (UDB) as the basis of a system for targeting, followed by outreach to obtain the necessary cooperation and buy-in from relevant ministries and agencies already implementing poverty reduction programs (TNP2K Key dates is provided in Table 1).

A third major exogenous challenge was encountered in 2013 when the GoI decided to reduce fuel subsidies, forcing TNP2K to shift some of its resources to help prepare the social compensation for this plan. In all three cases, the management of TNP2K succeeded in coping with the challenges and preserving the momentum of poverty reductions.

Table 1. *TNP2K's Key Dates*

Event/Key output	Date
Presidential Regulation 15/2010	Feb-2010
Launch of interim PRSF	Jun-2010
Launch of PRSF	Jun-2011
UDB development – starting date	Sep-2011
PPLS 2011 data availability	Oct-2011
BPJS Law passed	Dec-2011
UDB data availability	Feb-2012
Use of UDB data for Raskin, PKH, BSM, Jamkesmas	Apr-2012
Raskin reform 1 (use of cards)	May-2012

[9] Over any run of years the ideal rate of reduction in poverty cannot be expressed arithmetically in the way the original SBY goals were, because that actually implies constantly increasing effort, which cannot be indefinitely sustained. The more realistic representation would be in terms of some constant rate of shrinkage of the remaining pool of poverty, which of course will produce the non-linear and 'asymptotic' closure on poverty goals that we have seen actually occurs in practice.

Employment Strategy and National Financial Inclusion Strategy	Jun-2012
BSM reform 1 (cards)	Aug-2012
Integrated MIS development	Oct-2012
PNPM Road Map and Action plan	Nov-2012
Social Protection Food Security and Nutrition Strategy (SPFSNS)	Nov-2012
Distribution of 86m Jamkesmas cards	Dec-2012
Creation of Communication Unit and KM Unit	2012
BSM reform 2 (cards, M&E, socialization)	Mar-2013
PKH 2007/2008 recertification	May-2013
PKH endline	May-2013
PKH Transformation and graduation Strategy	May-2013
Launch of fuel subsidy reduction compensation package (P4S/KPS)	Jun-2013
PKH payment strategy	Jul-2013
Socialization campaign of P4S/KPS	Sep-2013
Youth employment strategy	Sep-2013
Village Law passed	Dec-2013
Raskin grievance and MIS	Sep-2014
BSM grievance and MIS	Sep-2014
PPLS 2015 consultations	Nov-2014

A fourth endogenous challenge (to the policy apparatus of GoI as a whole) emerged as TNP2K proceeded to implement its policy reform agenda. It had been assumed by DFAT and other external stakeholders that the power difference created by the location in the VP's Office, the association of other key ministries and agencies in the higher level structure of TNP2K, and the ability through Bappenas to direct the use of funds, would provide adequate "leverage for cooperation and change". TNP2K also felt that the intellectual superiority of their policy analysis, combined with the proper use of evidence, and especially the persuasive power of an integrated data base o(registry) on individuals, households and families in poverty (the UDB), gave them all the levers to ensure that there would be ready cooperation and coordination from implementing agencies and ministries. All these assumptions were tested, and it turned out that the compliance of key agencies

and ministries was not automatic. The Task Forces responsible for coordinating the implementation of the policy reforms designed by the Working Groups had a much larger job to do in practice than could have been anticipated. This was one of the most significant institutional lessons that to be learned from the whole TNP2K intervention. Not only is it necessary for the policy designers to use superior methods and best practices in policy preparation, and to exploit their power difference at the centre of government to convene the various actors and demand their participation; but when it comes to implementation of policy another set of issues come into play related to the necessary agency and independence of other actors involved. They cannot simply be overridden or instructed. They do have agency. For this reason the process of translating policy designs into operational programmes that will actually work requires intensive staff time, and coherent strategies and techniques. TNP2K had to develop this as a kind of "action research", and it was still working its way along the learning curve in 2014[10].

3.1 The Formation Period: October 2009–May 2010

From October 2009 to June 2010, TNP2K was in the formation period which was characterised by the preparation of a formal legal basis for TNP2K's existence, the finalisation of the structure, the recruitment of key staff as well as forging a good working relationship with potential donors.

The idea for a poverty alleviation policy coordinating body was immediately followed up after the election. The Vice President mandated the Deputy for Monitoring and Evaluation of the Bappenas, Mr. Bambang Widianto, to carry out all the necessary preparations for the establishment of TNP2K. Mr. Bambang was the most senior official of the small team of scholars proposing the national team. In carrying out the preparations, he was always able to work in close consultation with the Vice President and was helped by a team of bureaucrat who came from the office of the previous TKPK at Kemenkokesra, as well as several highly qualified personal assistants recruited from universities[11].

The first step was preparing the name and the legal foundation of TNP2K. At the direction of the Vice President, the new body was named the National Team for the Acceleration of Poverty Reduction, which abbreviated as TNP2K. This name was taken simply to acknowledge that its main mission was to accelerate poverty reduction in Indonesia. As for the legal foundation, it was agreed that the Presidential Regulation (Peraturan Presiden – or "Perpres") was the most suitable form of legislation for TNP2K. The previous poverty alleviation coordinating bodies used a Presidential Decree (Keputusan Presiden – or "Keppres") as legal foundation. Perpres was more in accordance with the law number 10 of year 2004 (Law No. 10/2004) about the hierarchy of legislation in Indonesia[12]. Second, it would have required a considerable time as well as political negotiation with the house to legislate a special law as the basis of a Keppres.

The next step was to design the initial structure both for the National Team as well as the TNP2K's Secretariat. At the National Team level, the structure was intentionally designed to include all ministers and head of national agencies involved in poverty alleviation. At the Secretariat Level, it was decided to align the organization with the strategy for accelerating poverty reduction, i.e. the"cluster strategy"already adopted during the SBY administration. By structuring the Secretariat according to the current prevailing policies and systems, it was expected that the team would be more easily focused on the task at hand as it would simplify direct engagement between TNP2K's staff and relevant ministerial staffs. Moreover, this arrangement

[10] DFAT's mid-course alteration of PRSF included the addition of Change Management skills as an additional support for TNP2K, in recognition of this emerging issue.
[11] Most of the bureaucrats involved in this team were later accommodated as staff in the office of Vice President as well as in the secretariat of TNP2K.
[12] Perpres is included in the official hierarchy of Indonesia legislation, while Keppres is not.

also facilitated a more straightforward monitoring and evaluation of the progress of each poverty reduction programs and its implementing agencies[13].

The legal preparations and designs of the initial structure culminated with the legislation of Perpres Number 15 Year 2010 on the Acceleration of Poverty Reduction in February 2010. Other activities at this period included logistic preparations such office and hiring key staff for Coordinator of the Policy Working Group, Advisor to the Policy Working Group and Head of the Monitoring and Evaluation Working Group. In total there were 10 full time consultants and staff working at the TNP2K's secretariat. All of these initial activities were funded by the GoI budget through the Office of the Vice President, and not by the PRSF, which had at this point not yet come into operation.

Another important step made by the Executive Secretary during this period was to approach potential donors. This was agreed from the onset by the team of initiators, after consultation with the Vice President. TNP2K needed donor partners to back up its operations as it could not rely on government budget and its usual procurement process, if it were to be responsive, fast and flexible. A donor partner's funds could facilitate the use of external consultancy and research services, which are often difficult to access under the very strict government procurement rules. In addition, at the stipulated government rates, it was difficult to attract the best available talents[14]. These constraints of the system created incentives for outside support to ensure that TNP2K could swiftly procure the expertise and equipment needed to make rapid progress.

In addition, TNP2K would have been subjected to more political scrutiny from house members and political parties if it was funded by the government. As poverty received wider public attention, politicians would naturally have become more interested on understanding and discussing the issues and the approaches being employed. On one hand, a more open architecture of policy making and greater public participation and political voice on poverty issues should result in better policies. On the other hand, too much voice at the early formative stage of TNP2K's creation would have been an unwanted distraction, negatively affecting its poverty alleviation efforts.

In forming partnerships with donors, a pragmatic but nevertheless strategic approach was adopted. Donors were approached based on two practical criteria: the personal relationships with key donors of the Executive Secretary, who had previously been the Head of Monitoring and Evaluation at the Bappenas; and the current involvement of specific donors in poverty alleviation projects in Indonesia. At that time, an example of a well-established cooperation between the GoI and donors on poverty alleviations was the PNPM Mandiri project, where DFAT directly financed and engaged in the management of the World Bank's based Poverty Support Facility (PSF). Therefore it was both a matter of common sense and strategic intelligence to request support from DFAT for TNP2K. Supporting both PNPM and TNP2K was a way to help each program build lessons and achieve some synergy on what works in terms of poverty alleviation efforts in Indonesia. From DFAT's perspective supporting TNP2K was very much in line with its stated goal of helping to encourage and shape processes of evidence-based policy-making within GoI, as was captured by the mantra: "Evidence into Policy"[15], which was often repeated in discussion by key DFAT advisers

At the request of the Vice President working primarily through the Executive Secretary, DFAT agreed to provide financial, technical and logistical support for TNP2K. It took only about three months from the issuance of Presidential Regulation

[13] Nonetheless, one may argue that it can also cause losing sight of the bigger picture by ignoring other alternative strategies to accelerate poverty alleviation.
[14] One of the TNP2K's initiators described how it was difficult to obtain government funding for a BLT research implementation in 2005 which required hiring a foreign expert.
[15] For DFAT's perspective on the development of evidence based policy-making in Indonesia see Brown, Rudland and Bazeley (2012).

Number 15 Year 2010, officially marking the founding of TNP2K, for DFAT to launch the Interim Facility (Poverty Reduction Interim Facility - PRIF) for TNP2K in June 2010. This was the precursor for the more fully considered PRSF, which came later. The development of TNP2K with the support of the Interim Facility is discussed next.

3.2 The Interim Period: June 2010– June 2011

The establishment of the PRIF (Poverty Reduction Interim Facility) in June 2010 marked the beginning of the second stage of TNP2K development. This facility was set up by DFAT as an interim facility for assisting TNP2K until the tender process for the PRSF completed in June 2011. PRIF initially focused on rapidly establishing the TNP2K office and recruiting the staff for it. It was initially authorised to recruit 60 staff for TNP2K as well as providing financial support for office rent and the acquisition of office equipment.

During this Interim period, TNP2K was relatively occupied with the process of finding the ideal form of structure and activities. Development plans and work agenda were being formulated by the Working Groups. Research activities were quite limited at this point as the funding for activities was still mainly coming from the GoI budget through the office of Vice President. Relationship building with relevant program implementing ministries or agencies was very much based on existing personal networks of recruited personnel and the prior working relationships of individual consultants.

In line with directions that were specifically given by the Vice President to the Executive Secretary, the TNP2K's Secretariat's operational strategy was initially focused on improving targeting of benefits, and improvements in the delivery processes of family-based social protection programs in Indonesia. Accordingly, its activities in this period centred on two strands of activity: the implementation of the Unified Database (UDB) and the assessment of the implementation mechanisms of specific Cluster 1 (Family Based Social Assistance) programs, especially: PKH, Jamkesmas, Subsidised Rice for the Poor (Beras untuk keluarga miskin - Raskin), Scholarship for Poor Students (Beasiswa untuk Siswa Miskin - BSM), as well as emergency social support measures such as BLT.

These two strands were interwoven, as the first step taken by TNP2K to improve targeting for Family Based Social Assistance was to construct the single UDB, and then to develop applications of the UDB data for identifying the poorest households. The use of the same database for all programs was expected to facilitate the consolidation of the various programs and improve the overall consistency of targeting. Previously, the line ministries responsible for implementing the so-called 'Cluster 1 programs' had tended to work in isolation from one another. Each ministry developed its own methodology separately from the others, even though they were in principle supposed to be targeting the same set of poor families. This gave rise to differences of approach that in turn led to wide discrepancies in the selection of beneficiaries from one program to another. For instance, although ideally the BLT, Raskin and Jamkesmas were intended to reach the poorest 30% of all households in Indonesia, in practise considerably fewer than a third of these households were simultaneously receiving all three programs in the period before TNP2K began work.

The UDB included socio-economic information on the poorest households in Indonesia covering all those who currently are, or who in future may be potentially eligible for poverty reduction programs. By the application of specific criteria across the data set this database can be used to extract lists of beneficiaries (by name and address) eligible to receive social protection benefits from any programs targeted at the poor. The development of the system was coordinated by TNP2K working in close partnership together with the BPS, Bappenas, government ministries involved in social protection, and was supported by technical assistance from the World

Bank[16].

The primary data source for the UDB was the PPLS 2011, a survey of roughly 26 million households conducted by BPS in July-October 2011. In this case, the development was not started from scratch. The basis for designing PPLS 2011 already existed in the form of PSE05, which was the data the BPS had collected in preparation for the BLT in 2005, and this was also underpinned by an earlier PPLS 2008. These databases were merged, improved and modified so as to produce the first single registry for beneficiary selection of social assistance programs in Indonesia.

In this Interim period, TNP2K focused mainly on designing the targeting methodology that would guide the PPLS data collection, in partnership with the BPS. It did so through providing technical inputs on the survey design/instruments/ operational manuals, by coordinating a poverty mapping exercise using census data as the starting point for PPLS 2011, and by collecting information from different social protection programs to inform the process. This work exemplified the evidence–based approach, at an operational level. It was not "evidence into policy" as the DFAT mantra expressed it – the policy choices having already been made; but it was "evidence into programming" in regard to the implementation of policy. At the same time, during this period TNP2K also started on socialisation and coordination efforts to the levels of the Local Governments, and the relevant Ministries. This was in order to build awareness and secure commitments that social assistance programs would use the new database, particularly the family based programs such as PKH and Jamkesmas.

The task of building awareness of the UDB was carried out concurrently with the empowerment and capacity building of the local Poverty Alleviation Policy Coordinating Body (Tim Koordinasi Pengentasan Kemiskinan – TKPKD) at provincial and district level. Local governments play a pivotal role in ensuring successful implementation of many national poverty alleviation programs. Throughout the life of TNP2K there has been a focus on capacity building of Regional TKPK, and this has been one of the central themes of the periodic directives of the Vice President to the TNP2K Secretariat.

In order to satisfy these instructions from the Vice President, the Advocacy Unit at the TNP2K's Secretariat was established as a separate unit in April 2011, and subsequently upgraded as a full working group in early 2012. The unit had previously been part of the Support Secretariat responsible for liaison with the TKPK team at the provincial and district levels. Nevertheless, it was soon realised that TNP2K needed not only to liaise but also to enhance and increase the capacity of regional governments. This realisation was found out at the National Technical Coordinating Meeting of Poverty Reduction between TNP2K and regional governments at TNP2K building in June 2010. Subsequent to this, a Minister of Home Affairs regulation (Permendagri) Number 42 Year 2010 on Regional Coordination Team for the Acceleration of Poverty Reduction was enacted.

As a result, it was given more importance, and a full time officer was recruited to head up this unit; he was supported by three other staff re-assigned from the Secretariat Support team to support him. The Advocacy unit was mandated to build capacity and support the institutional strengthening of TKPKD at the provincial and district/city level. In particular, its objectives were to promote evidence based planning, budgeting and policy-making processes for poverty reduction at the local level and to provide capacity development support services to TKPKDs.

[16] The statistically informed reader will recognize that this is an old-fashioned registry containing data in a cartesian structure, allowing structured enquiries. In the yeasr since the UDB was created the profession has developed new systems and algorithms permitting unstructured data bases to be precisely interrogated. Future UDB design could well reflect such advances in methodology, permitting a more "big data" approach base don the merging of data sets from various levels of gogovernment, and other sources. However, a central registry will remain a fundamental feature of any new UDB for some time to come.

The Cluster 1 Policy Working Group undertook an initial assessment of the family based social assistance programs with a careful look at their short and medium term impacts on poverty reduction. The purpose of this exercise was to analyse the current coverage and identify systematic gaps in the existing social assistance program. The initial emphasis was restricted to issues of coverage and the benefits delivery processes of PKH, Raskin and BSM programs. As part of this assessment the Cluster 1 Policy Working Group reviewed the effectiveness of using different targeting criteria for current social assistance programs, including geographical, categorical, life-cycle approaches and means-testing.

In this period, the Health Social Assistance Group had started to perform a review of the Jamkesmas program and was making some initial recommendations for improvement. At this stage, the operations of the Health Working Group (HWG) were not covered as part of the PRIF, as they were being funded by the Deutsche Gesellschaftfür Internationale Zusammenarbeit (GIZ). Although it did not receive funding from the PRIF at the outset, the HWG was eventually adopted by TNP2K and received funding from PRSF when it replaced the PRIF, and in due course it received co-financing from GIZ.

Cluster 2 Policy Working Group had also started its work by supporting the preparation of a roadmap, in this case to define the future of PNPM Mandiri, with recommendations regarding integration, decentralisation and transition. During this period, the Cluster focussed on drafting these recommendations, particularly the recommendations on mechanisms and protocols for integrations of PNPM Mandiri program at various level of government. As with Cluster 1's work the emphasis was on making improvements in the efficiency and effectiveness of an existing complicated set of policy activities, but not on revising the basic policy.

In parallel with this work by the Cluster working Groups, and in support of their search for improvements in efficiency and effectiveness, the Monitoring and Evaluation Working Group (MONEV) begun regular monitoring for poverty reduction programs to analyse their effectiveness and the quality of implementation. The responsibilities of MONEV embraced the work of all the clusters, and staff from the Monitoring and Evolution Working Group were often required to work directly with the staff of other units.

Unlike the other Working Groups, the Cluster 3 Policy Working Group did not become operational during this interim period, and similarly, the Task Force unit whose mandate was to assist relevant ministries/agencies to translate cluster 3 policy recommendations into action was not immediately or fully activated. Nevertheless, two initial personnel for this Taskforce Unit were recruited in the first half of 2011. At this early stage of TNP2K development, much of the liaison with relevant poverty implementing ministries, in order to get buy-in for the Working Group program reform recommendations, on program implementation was being carried out directly by the Policy Working Group coordinators and staff themselves. The increasing "specialisation" of the Task Forces in handling this translation of ideas into routine practice was something that emerged over time in response to the unexpected challenges in this area.

3.3 UDB Implementation Period: July 2011– December 2012

This was the period where the UDB was first used as a targeting tool in poverty reduction programs. By the end of the period, i.e. within eighteen months, the major family based programs of Raskin, PKH, Jamkesmas and BSM were regularly (if not always systematically) using the UDB data for improved targeting. It was also a period marked with increases in research activities and evaluations on poverty reduction programs. These increases were made possible by the availability of funding provided through the PRSF, which officially began full operation in June

2011. Many of the research programs needed, and designed in the previous period could now be carried out. Similarly, evaluations on the current program targeting and delivery processes were undertaken which required several surveys and pilots to be implemented. As the data from these studies began to come in, it was possible to use the information to make course corrections, resulting in specific recommendations for better targeting and delivery of the anti-poverty programs.

Research and evaluation activities in this period were a particularly visible feature of two of the working groups: the UDB team or Targeting Unit, and the Cluster 1 Policy Working Group. In the second semester of 2011, the PPLS 2011 was undertaken by the BPS. This survey formed the basis for the UDB data set containing socio-economic information from 40% of the poorest families in Indonesia. TNP2K worked closely with BPS to oversee the conduct of the survey in the field and supervised the data analysis process in order to produce the list of beneficiaries for social protection programs by a deadline of January 2012. At this point there were mounting pressures to produce the list as it could be foreseen there would be a need to implement a BLT program as soon as December 2011, to provide a means of compensating poor families for a planned reduction in fuel subsidies.

At the same time, the UDB team developed a Management Information System (MIS) and intensified its efforts to secure commitments from relevant ministries and agencies for using the database, particularly for the Jamkesmas and Raskin. It also produced and circulated drafts of several policy/operational protocols for management of the UDB including protocols for data-sharing agreements, and for maintenance of data security. In conjunction with the Advocacy Unit, the UDB team also produced policy brief and other socialisation materials on unified database for distribution to TKPKD and other stakeholders at the level of local government.

This period was an extremely busy time for the Cluster 1 Working Groups. In February 2012, the Vice President directed that all Family Based Social Assistance programs must start to utilise the UDB as the basis for targeting, and so preparations for the implementation of these reforms had to be carried out quickly. The working Group focussed on the implementation for Raskin and BSM based on performance reports and evaluations of by the World Bank. Afterwards, some reforms of the Raskin program were implemented in first half of 2012 using the new beneficiaries list from the UDB.

Subsequently, TNP2K carried out a survey to evaluate the implementation of Raskin with the new targeting method. This survey resulted in new set of recommendations presented to the Vice President in a limited cabinet meeting. These recommendations included the use of identity cards to track the use of Raskin .It was considered that the use of cards would empower poor households to demand the full subsidy to which they were entitled and gave distributors an easier way to identify the households that were eligible. It was also seen as a way to facilitate the integration of all the family based social assistance programs as the cards entitled beneficiaries not only to Raskin, but also to other programs applicable to the “bottom 30%”, including the BLT and BSM programs

At the Vice President request, a pilot study of the Raskin distribution was undertaken to test the effectiveness of the proposed reforms, including the use of cards, in the second half of 2012. This study was carried out to ensure the project actually benefited poor families as expected and that it did not generate unintended consequences on the side. The study was also meant to gather evidence for the Vice President’s plan to scale up the use of the identity cards. To that effect, the Research section from the UDB team was working with Cluster 1 and the Monitoring and Evaluation Working Group on the trial use of cards for RASKIN, as well as on a smaller scale of experiment (also on Raskin beneficiaries) with the Abdul Latief Jameel Poverty Action Lab (J-PAL).

Cluster 1 also developed a new mechanism aiming to improve the targeting of BSM beneficiaries using the UDB. The pilot study of this new mechanism was implemented in 3 different provinces for poor students entering class 1, class 7 and class 10 in the academic year of 2012/2013. Subsequently, BSM Reform Part 1 and 2 were carried out nationwide. The first BSM Reform targeted around 281, 000 students (Class 7)., while the second BSM Reform targeted 270,000 new entrants of Primary School (Class 1) and 450,000 students of Class 7. For PKH programs, Cluster 1 proposed a PKH exit strategy (this was done in close consultation with MoSA, Bappenas, and the GIZ) that would improve the effectiveness ofimplementation of the PKH program.

Supported by funding from PRSF, the Cluster 1 Working Group had also started carried out many research activities to support the production of the map. These included studies on Elderly and Disabled. These studies produced reports on Social Assistance Needs of Poor and Vulnerable Older People and a Household Survey about Social Insurance for the Elderly (Jaminan Sosial Lanjut Usia-JSLU). Cluster 1 Working Group also commissioned further research involving several studies undertaken by the Oxford Policy Management (OPM) into complaints mechanisms and grievance resolution processes for social assistance programs. In 2012, 'Survey Meter' was commissioned to conduct the first round of the Indonesian Family Life Survey in the eastern part of Indonesian archipelago (IFLS-East). The resulting statistics were used by the Cluster 1 Nutrition Teamas a key input for its subsequent policy working paper on health and nutrition outcomes for Eastern Indonesia. These research activities ndicate an underlying strategy by which TNP2K was gathering evidence for future policy design and reforms, but was doing so on a platform of close engagement in the business of improving existing poverty programs. It could be classified as institutional learning at the policy level, and in due course, would have led to TNP2K's increasingly close involvement in new policy thinking and designs[17].

The Health Working Group focused on the implementation of UDB in the Jamkesmas program by the Ministry of Health (MoH). After a series of consultation, all the data by name and address corresponding to 86 million individual Jamkesmas beneficiaries were agreed and then used as basis to print Jamkesmas card, by the end of 2012. The group also produced estimates on premium based benefit package scenarios, and analysis of the possible fiscal impact of the BPJS program to be implemented in 2014. Research activities that were carried out also included a Review on Regional Health Insurance (JaminanKesehatan Daerah – Jamkesda) and a Study on Catastrophic Diseases.

All of the above activities to extend the use of UDB and reform the welfare program delivery processes involved extensive consultations with program implementers and other national level stakeholders, and with the regional governments and other local stakeholders, primarily through the TKPKDs. A national public information campaign and consultation on the topic of Raskin targeting was launched in late June 2012. Frequent formal and informal meetings between TNP2K staff and programs implementing ministries/agencies were also carried out for Raskin and other Family Based Social Protection programs. Similarly, a number of workshops were conducted and campaigns were undertaken in various regional forums.

Cluster 2 Policy Working Group continued building on its preparation of a roadmap for PNPM Mandiri by developing an Action Plan for the mapped activities. This action plan and its implementation matrix were finalised in November 2012. Cluster 2 also extensively consulted over the action plan with various stakeholders. Cluster 2 staff also undertook coordination meetings in preparations for agreement

[17] When assessing existing programme performance there are typically three levels of institutional learning that result: operational lessons that feed back immediately into the management of particular programmes; strategic lessons that may lead to a rethink of who is implementing the programme and how; and policy level lessons that feed forward into the future development of entirely new policies.

on the implementation matrix. In this period, to clarify its choices, the group initiated a number of studies on various issues of PNPM Mandiri implementation. These included a study on the legality of community institutions, and reviews on PNPM planning processes and the (quite varied) technical capabilities of local government. An evaluation was also undertaken of financing options for continuation of PNPM from 2015 onwards. The Task Force for Cluster 2, which was supposed to be embedded in the Kemenkokesra, did not come into operation and the work of translating the reform designs into implementation activities remained with the Cluster 2 Working Group[18].

In the second half of 2011 the Cluster 3 Working Group was activated. This Cluster began with the formulation of working plan with two major pillars: improving MSMEs' access to finance; and promoting the development of MSMEs. At the end of 2012, as recommended by the TNP2K's steering committee, the focus was shifted more towards job creation, financial inclusion and access to finance. Studies on the impact of a micro credit program (Kredit Usaha Rakyat – KUR), use of 'mobile money' via phones, and PKH electronic disbursement, were carried out in 2012. The Group also prepared an Employment Strategy and a policy paper on National Financial Inclusion Strategy (NFIS) which was submitted to the Vice President whom then formally presented it for support to key ministries.

During this period, the Monitoring and Evaluation Group developed an integrated Management Information System (MIS) across the major social assistance programs. Preliminary stock-taking and mapping exercises were carried out in the last quarter of 2011. This was followed by consultations with programs implementers to compile data and push forward the project. The Group also undertook monitoring of PNPM in both urban and rural contexts, PKH disability and elderly programs, Jamkesmas, and an in-depth impact evaluation of the PKH program. In 2012, it undertook a preliminary assessment of the targeting accuracy in implementing major social protection programs with the UDB, by exploiting the independently derived data from the National Socioeconomic Survey (Susenas). The group also provided professional assistance to all Clusters in the area of design and implementation of research activities.

The UDB implementation period was also a period marked by several changes in the structure of the rapidly expanding TNP2K's secretariat. Many new personnel were recruited, some units were upgraded and new units were created. At least two factors can be identified in explaining this change. First, there was an enforced increase in activity levels resulting from efforts to get buy-in from various ministries and local governments for program improvements, including the use of UDB. The second factor was the creation and the staffing of working groups. The Cluster 3 Policy Working Group was activated this period. The Policy Advocacy Unit was upgraded into a full Working Group. Some other units such as the National Targeting Unit, the Communication Unit and the Knowledge Management Unit were also created to respond to the challenges of program implementations.

Within the TNP2K Secretariat Support, a number of changes were initiated in response to the growth of working liaison and consultation with various stakeholders on improved targeting with UDB and other proposed implementation reforms. These changes included upgrading of the UDB team to become a National Targeting Unit (Unit Targeting, Poverty alleviation - UPSPK) in the first half of 2012. This was to give it the capacity to meet the challenges ofadvocating and socialising the use of the UDB to the national and local stakeholders.

At the same time, Taskforce Unit supporting the Cluster 1 Working Group

[18] However, the Task Force for Cluster 2 later materialised as Pokja Pengendali PNPM (Oversight Working Group), seated at the same building with TNP2K (but on different floor).

was activated to help engage and consult the implementing national ministries/ agencies with the proposed reforms on programs delivery. The Taskforce Unit along with the Advocacy Unit and Monitoring Evaluation Group were all reinforced at this point by increasing the number of full time professional staff engaged on those activities.

At the end of 2012, some refinements within the TNP2K secretariat structure were also carried out. The Data and Information Unit within the Secretariat Support unit was expansively redesigned in order to create a Communications and Knowledge Management Unit. This new unit was created based on the findings of a study commissioned by PRSF on how to improve the business processes within TNP2K. It served as an outlet both for internal and external communications and for the management and preparation of knowledge products.

3.4 Fuel Subsidy Reductions and Compensations: January 2013 – October 2013

The GoI's plans for reducing the level of the fuel subsidy marked, and indeed dominated, the next stage of TNP2K development. At the beginning of 2013, the Vice President signalled that TNP2K should start preparing a comprehensive social assistances package to compensate the poor for the possible increases in subsidised fuel price. In response to this request TNP2K came up with a compensation package that was designed both to palliate the immediate effects of increased fuel prices on the poor (Program Kompensasi Khusus) but also hopefully to provide longer term benefits for the poor (Program Percepatan dan Perluasan Perlindungan Sosial, P4S)[19].

As a result of this high level political demand, many resources of TNP2K were diverted or refocused to assist in designing and coordinating the implementation of the compensation programs. In this period, TNP2K became a de facto coordinator for the Program Kompensasi Khusus and P4S implementations but also a support organisation for all ministries and agencies to do with anything that was related to those programs. TNP2K was responsible for providing technical support to relevant line Ministries. TNP2K used its PRSF support facility to provide and pay for development and dissemination of a range of operational documents and other materials that ministries needed. TNP2K also commissioned PT Pos Indonesia (a key partner in all reform programs) to design, print and distribute millions of cards. Further, TNP2K was tasked to manage enquiry responses and provide a complaints handling mechanism, as well as monitor and evaluate the implementation of the compensation programs. In essence, when GoI as a whole was faced with the need for strong and coherent central management of a complicated policy shock with large implications for society and the poor, the TNP2K was the instrument of choice, and was given the scope to act.

This enforced increase in the intensity of coordination between TNP2K and relevant implementing ministries/agencies during this period also resulted, as a by product, in better coordination arrangements between TNP2K and ministries over each of the key programs. For instance, through the coordination of the Cluster 1 Task Force with the relevant line ministries, TNP2K has managed to improve the Standard Operating Procedures (SOP), operations and technical support for the Raskin and BSM programs. Improvement in coordination was also illustrated by the use of the UDB managed by TNP2K to identify the beneficiaries of the compensation programs, consisting of the poorest 25% of the population or 15.5 million households. This was the first time the government has coordinated social assistance programs

[19] The Program Kompensasi Khusus consisted of three components: an unconditional cash transfer (BLSM) for 15, 5 million households, an increase in the rice allowance under the Raskin program from 15 kg to 30 kg per month for three months for the same 15.5 million households and an allocation to community level infrastructure but not through PNPM. Meanwhile, the P4S program was consisted of 2 components: a greatly expanded BSM with an increase from 8.7 million to 16.6 million students benefiting with increased cash supports and an expanded PKH with an increase from 1.5 million households to 2.4 million with increases benefits.

based on a single registry and the results were sufficiently impressive that it paved the way for further integration in the future.

TNP2K also seized the momentum of fuel subsidy reductions to introduce a social protection card (Kartu Perlindungan Sosial – KPS) to ensure the integration of major social protection programs and to improve programs deliveries. The implementation of KPS in the programs resulted in relatively high disbursement rates for BLSM (The Unconditional Cash Assistances – BLSM/ BLT) 93% in phase 1 in June 2013 and 91% in phase 2 as of end of September 2013. In addition, the fuel subsidy reduction campaign helped to raise public awareness of TNP2K and brought to broader attention its role in poverty reduction.

On the other hand, various activities related to the preparation and coordination of the compensation program took a lot of resources away from TNP2K's on-going activities. Four groups in TNP2K were particularly active during this period: the Cluster 1 Task Force, the Monitoring and Evaluation Working Group, the Advocacy Unit and the Communication Unit. The Cluster 1 Task Force was the main load-bearing unit of TNP2K in providing support to ministries and agencies responsible for compensation programs implementations. This unit assisted by the Monitoring and Evaluation Working Group performed spot checks on the implementation of KPS. The Monitoring and Evaluation Working Group together with the Advocacy Unit also carried out socialisation and training for local TKPKs on the P4S and BLSM programs .While TNP2K Communication Unit led at times directly by the Vice President, acted as the main public relation unit of the GoI on fuel subsidy reduction campaign.

Obviously, many ministries and agencies were ill-prepared to deal with the policy shocks related to the preparation and the implementation of social compensation programs following the fuel subsidy reduction. Added to that, several other reforms related to the social protection programs were also being undertaken in this period. For instance, the MoSA has struggled with the implementation of the KPS, and faced a lot of difficulties created by its new responsibilities for the Raskin program. Bappenas was also under-resourced for current workloads to finalise Roadmaps for the Elderly and Disabled, as well as the social protection policy and program design for the Government's 5 year plan from 2014-2019. It turned out that neither of these agencies had good systems for public dialogue or for holding discussions with relevant NGOs.

TNP2K found itself increasingly being asked to fill the resource, knowledge and capability gaps in these two key organizations, usually through the mechanism of the Cluster 1 Taskforce. This critical Unit intensified its support and consultations with all programme implementers during this period: for instance with MoSA on the recertification process of PKH and the implementation of BLSM, with MoEC and MoRA for the BSM reform, and with the MoH over the delivery of Jamkesmas cards, support to Jamkesmas operations, and the preparation for establishment of the BPJS.

Not only providing supporting functions to ministries, TNP2K often found it necessary to carry out tasks that should have been done by the ministries. This was best illustrated in TNP2K Communication Unit's role in socializing fuel subsidy reduction and social compensation. Led personally by the Vice President, the Communication Unit involved was from the very beginning in designing the communication strategy and the plans for development and production of socialization materials for related stakeholders. These should have been performed by the Ministry of Communication and Information. The Unit also implemented a media and social media campaigns for BLSM, with the main intention to explain the targeting mechanism to general public. It also implemented socialisation for BSM program through several outlets from SMS broadcast, Media Roadshow, Radio Campaign and posters distribution. TNP2K Communications Unit also worked closely with PT Pos Indonesia to integrate

the BSM Socialization into the disbursement process of BLSM phase 2 in September 2013.

Another important initiative involving TNP2K communication unit during this period was the effort to boost the take up rate of BSM through the KPS Card. Dismayed by the mere 4% uptake rate of the KPS for BSM purpose, the Vice President instructed TNP2K to disseminate info to encourage beneficiary claiming their BSM entitlement. Following this instruction, TNP2K Communication Unit launch intensive socialization and communication campaign to several target areas, and managed to improve the uptake rate to 60%.

In this period, key programs were now based on the UDB, and many ministries and local governments started to request data, usually for planning purposes. In February 2013, the UPSPK Unit launched a Qualitative Study to gather lesson learned from the several months of the UDB's operations in order to support future developments and making improvements in the system. The Unit also commenced the implementation of Business Intelligence software to give better support to TNP2K and its assorted stakeholders in the use and analysis of this large data base.

While this period was dominated by the fuel subsidy and related issues it was also marked by several studies and research activities undertaken for the Cluster 1. For instance, Cluster 1 Working Group used data from IFLS East to explore existing gaps in healthcare and nutrition programs coverage in the Eastern part of Indonesia to formulate policy recommendations to improve policy implementation. Cluster 1 also developed a survey module on Micro Business and KUBE for inclusion in the PKH Endline survey, in both the quantitative and qualitative research activities. Cluster 1 Working Group also provided policy input and program design support to the MoSA in the implementation of the KUBE-PKH 2013 Pilot. KUBE was a program of the MoSA that distributes grants to groups of very poor individuals to engage in economic productive activities. KUBE PKH was designed to target groups of PKH beneficiaries as part of the PKH graduation policy and transformation strategy. The KUBE-PKH pilot was being implemented in 8 districts among 5 provinces.

Meanwhile, TNP2K Health Working Group has engaged related Ministries in the development of an effective model for extending social health insurance (SJSN) for non-waged workers, as described in the "Road Map to National Health Coverage 2012-2019". TNP2K efforts were aimed at comparing and contrasting various contributory health coverage policy designs (Jamkes Mandiri) in order to be able to include a sizeable number of informal and non-wage earning workers in the coverage. The Health Group together with the UPSPK Group also promoted the general concept of UDB complaint handling mechanism for membership to the JAMKESMAS program. It was considered essential to persuade the JAMKESMAS program to adopt and implement a robust complaint handling system for membership since the program has now printed and distributed membership cards that are based on UDB data received from TNP2K.

Further, at national coordination meeting chaired by the Vice President in Mid-February 2013 concerns were raised over issues of implementation strategy for BPSJ and MOH proposed an immediate plan of action in response. As a result of the MoH's presentation of its action plan to the Vice President, the Health Working Group, assisted by the World Bank, has supported MoH to provide alternative estimates and analysis of the supply side of the health delivery strategy. It developed a model or framework for assessing supply side requirements based on forecasts of health needs. During this period, the Health Group also developed proposals for a Study on the Role of Primary Care under BPJS, and design of a Pilot on Inclusion of Informal Workers in SJSN.

Upon submission of its final report on grievance mechanisms, the subcontractor (OPM) produced four policy briefs on grievance mechanisms for BSM, Raskin,

Jamkesmas and PKH.

During this period, Cluster's PNPM Road Map was discussed in the high level meeting between the Vice President and 15 ministers and resulted in a number of improvements and recommendations governing future implementation. Thereafter, Cluster 2 organized a series of events and workshops for the socialization of the Roadmap.

Cluster 2 has also been asked to provide inputs to the development of Village Law drafting process the legal basis for which was at that time being discussed in the parliament. In the third quarter 2013, the implementation of policies related to PNPM and community-driven empowerment was facilitated through the finalization of a set of standard KPIs (Key Performance Indicator) and the design of a policy for paying salary and basic allowances for local facilitators, both certified and not yet certified.

A new emphasis on employment for the poor led by Cluster 3 was heralded by circulation of a concept note both internally and to a range of outside experts for comments. In addition, the ILO seconded an employment specialist to produce a draft concept note for TNP2K outlining a rationale for what and how to engage with government on improving employment for the poor. Cluster 3 Working Group has also developed an impact evaluation of the KUR which included proposed interventions and pilot studies, and at the same time it continued the development of reforms to improve access to finance and financial inclusion activities for the poor. A Letter of Agreement was signed between BI and TNP2K that sets out the areas of cooperation between the two institutions in the field of financial inclusion. This partnership has contributed to progress in undertaking several research activities in the area of financial inclusion.

During the fuel subsidy reduction period, the Advocacy Group of TNP2K helped formulating the P4S guidelines for TKPK as well the socialisation of the programs. The Group also formulated Operational Guidelines for the development of Local Poverty Reduction Strategy (Strategi Pengentasan Kemiskinan Daerah - SPKD). In collaboration with the TNP2K KM (Knowledge Management) team, the Unit developed a compilation of Best Practices of local poverty reduction and worked collaboratively with SMERU to develop a Tool Kit and Practical Information Package for the mainstreaming of activities to address poverty and vulnerability.

Apart from assisting in the design and implementation of the compensation programs, the Monitoring and Evaluation Working Group together with the UPSPK Unit helped to edit the Raskin beneficiaries list, also supervised the Raskin reform monitoring study conducted by LP3ES and the BSM reform study conducted by the Centre for Population and Policy Studies, Gadjah Mada University (CPPS-UGM). Finally, in conjunction with the UPSPK Unit, the Group assessed the effectiveness of KPS distribution using the PPLS data matching with Civil Registry Data of the MoHA.

At the end of this period, all working groups and units within the TNP2K Secretariat have become fully functional. These included the two additional units created in 2012: the Communication Unit and the Knowledge Management Unit. As discussed above, the strengthening of TNP2K capacities and the pace of recruitment in the previous period proved to be worth. Beside its roles in the fuel subsidy reduction campaign, all the new units such as the Communication Unit has played vital function in increasing public awareness of TNP2K and its role in poverty reductions through the publication of TNP2K website as well as distribution of other publication materials. Similarly, the Knowledge Management Unit has provided Library and Information Services and conducted regular Monday Sharing Session for TNP2K stakeholders. This unit too played as an interface for distribution and dissemination of knowledge products of TNP2K. If there are weaknesses in this overall story they relate to the way in which neither Cluster 2 nor Cluster 3 Working Groups were able to depend upon relevant Task forces within their related ministries to handle the

translation of policy reform designs into actual implementation. Without a good counterpart Task Force to assist them both the Cluster 2 and 3 Working Groups had to undertake this function themselves, and probably as a result they were not as overall efficient as Cluster 1 in implementation.

3.5 The Election and Uncertain Future: November 2013 - Present

In this final stage of its current life, TNP2K had to prepare for the transition into the new administration after the election in 2014. These preparations included producing a series of institutional reports on BSM, Raskin, PKH, and Jamkesmas as well as on the PNPM and the work of Cluster 3 Working Group. The reports on these activities also explored the evolution of social assistance and social protection in Indonesia. They provide an insight into the challenges of delivering social assistance in the pre-TNP2K era, and describe the reforms initiated and critical lessons learned byTNP2K to inform the future direction of social assistance in Indonesia. These reports document the legacy of TNP2K. A catalogue of all TNP2K publications was also developed for publication, in mid-2014.

In addition, TNP2K developed a strategy to sustain the UDB under a range of scenarios that the PRSF can support. This was to some degree an effort to anticipate the new administration's policy direction on poverty reduction strategy. A report describing the research, evidence, policy, and strategy behind the creation and implementation of the UDB was written. The recommendations of this report provide a frame and a strategy for the migration of the UDB to a new institutional home. From a technical viewpoint, SOPs for maintaining the day-to-day operation and running of the UDB were also developed.

TNP2K's UDB team also updated the poverty pre-list for the next Social Protection Programmes Survey (PPLS). The UDB team managed or oversaw the data entry arising from the complaints or updating that were part of the community participation processes used to undertake beneficiary review of the operations of Raskin and the KPS program. This exercise of updating added around half a million new households to the pre-list to be surveyed in 2015[20].

Further, TNP2K performed the second qualitative assessment of local governments' use of the UDB in Pekalongan, Bintan, Cirebon, and Bandung. The first assessment in November 2012 found that the UDB data have been used for the planning and implementation of local programmes. Nonetheless, the use the UDB at that time had been done without enough preparation and socialization, which created some implementation issues at the local level. The second assessment was to further inform future developments and improvements to the UDB system, by evaluating the evolution of the UDB users' experience after two years of UDB use and comparing it with their experience after a few months of implementation of the UDB.

At the same time, TNP2K continued its efforts in building the capacity of counterpart agencies to manage reforms already initiated. This task was largely carried out by the Cluster 1 staff and the Task Force teams. They assisted ministries and agencies on implementing programs reforms. For instance, a J-PAL pilot investigation using randomised controls was used to evaluate community engagement and bidding systems for the distribution of Raskin rice, in nearly 200 villages. TNP2K also undertook an analysis that explored the option for splitting the (traditional) price stabilisation functions of Raskin from its more recently added poverty alleviation role.

Similarly, TNP2K through its Cluster 1 Taskforce worked with the MoEC and MoRA to enhance their capacities for MIS and Grievance-Handling Mechanisms of the BSM program. TNP2K discussed with the relevant implementing agencies the need for uniform monitoring and evaluation (M&E) tools for the program. In

[20] The survey was actually scheduled in 2014; nonetheless it was postponed in 2015 due to the election.

addition, Task Force BSM team carried out spot checks in 36 schools and visited 360 households in 7 provinces and 9 districts.

On the PKH program, an endline survey for the nutrition program has been completed and followed up. Cluster 1 teams also finalised the assessment of PKH graduation and the KUBE program (Productive Activities Program). The KUBE program was recommended for households graduated from PKH. The Health Working Group busy supported the evidence base for government health services funding—with special emphasis on the costs of provision to the poor—under the new national health insurance scheme.

Cluster 2 team recovered its footing and focussed on provided technical advice for the drafting of relevant regulations for the implementation of the new Undang Undang Desa (Village Law). For instance, TNP2K though Cluster 2 Working Group provided technical support for the Ministry of the Finance on the drafting of guidelines for the Village Transfer Funds. All of these supports have resulted in significant improvements in the Regulations on Governance for the Implementation of the Village Law, signed by the President (Peraturan Presiden Number 43/ 2013). TNP2K also prepared materials on future options for PNPM which were presented for the Vice-president's consideration, and hopefully would inform the New Administration.

In this period, Cluster 3 continued to carry out studies on policy reform options for micro, small, and medium enterprises, which it did jointly with the World Bank. These studies included MSME stakeholder mapping; design and implementation of an analytical framework for MSME policy reform; and communications strategy for MSME policy reform. It is expected that these studies will help to develop policies that can support the development of emerging 'winners' (which is not the same as picking winners) and at the same time reduce MSME's costs of doing business. Work with Bank Indonesia on development of regulations for the use of mobile money also continued, and a pilot project to make payments using mobile money for PKH recipients was started in June.

Cluster 3 also carried out researches on access to finance and insurance for MSME development. In this area, three studies have been completed. One was on a partial credit guarantee system designed to improve MSME access to finance. The second was on an increase of the number of participating banks to KUR. The third was an historical study of KUR.

The TNP2K's Advocacy Unit also continued its efforts in building capacities of local governments through the development of Local Poverty Reduction Strategy (Strategi Pengentasan Kemiskinan Daerah - SPKD) and training for TKPK on Poverty Analysis. The TNP2K Communications Unit has completed implementation of program socialisation included the socialization on Jamkesmas.

Many of the key staff of TNP2K became actively engaged in discussions with members of the incoming administration, and with their advisers, on their experiences in TNP2K and possible lessons for the future. All of the transitional work described in this section was of obvious importance. Though it is too soon to say at this point it would appear that many aspects of the work of TNP2K are likely to be maintained, as the utility and efficacy of this institutional intervention has been clearly understood by the incoming administration. However, at the time of writing that is merely an assertion, which remains unsettled for now.

References

Bah, A., Mardiananingsih, F. E. and L. Wijaya (2014) *'An Evaluation of the Use of the Unified Database for Social Protection Programmes by Local Governments in Indonesia'* TNP2K. March 21014.

Datta, A., Febriany, V. and D. Susilastuti (2013) *'Social Assistance Policymaking in Indonesia: Opportunities, and Constraints to, Promoting Reform'* ODI. February 2013.

Datta, A., Jones, H. et al. (2011) *'The Political Economy of Policy-Making in Indonesia: Opportunities for Improving the Demand for and Use of Knowledge'* ODI. December 2011.

Fanggidae, V. (2012) *'The Challenge of Poverty Research in Indonesia: Should Poverty Alleviation Data Be Politically Correct*?' Prakarsa. December 2012.

Nazara, S. (2014) *'Peran Penting Pemerintah Daerah dalam Penanggulangan Kemiskinan'* TNP2K. May 2014.

Perdana, A. and J. Maxwell (2011) *'The Evolution of Poverty Alleviation Policies: Ideas, Issues and Actors'* http://www.crawford.anu.edu.au/acde/ip/pd/lpem/2011/Perdana_2011.pdf. Accessed on 8 October 2014.

Sumarto, S. (2011) *'The SMERU Research Institute: History and Lessons Learned'* SMERU. April 2011.

Suryahadi, S., Yumna, A., Reku Raya, U. And D. Marbun (2010) *'Review of Government's Poverty Reduction Strategies, Policies, and Programs in Indonesia'* SMERU. October 2010.

The World Bank (2012) *'Making Indonesia Work for the Poor' The World Bank'* November 2006.

The World Bank (2012) *'Targeting Poor and Vulnerable Households in Indonesia'* The World Bank. December 2012.

The World Bank (2012) *'Protecting Poor and Vulnerable Households in Indonesia'* February 2012.

TNP2K (2014) *'Upaya Khusus Penurunan Tingkat Kemiskinan: Panduan Penargetan Program Penanggulangan Kemiskinan Berbasis Wilayah'* TNP2K.

When Growth is Inclusive in Indonesia?

Nugraha Pukuh[1] and Hayu Fadlun Widyasthika[2]
Central Bureau of Statistics – Indonesia

Abstract

This study aims to measure and analyze inclusive growth rate in Indonesia by using per capita expenditure data from Indonesian population. Inclusiveness of growth is observed from the Growth Incidence Curve and pro poor growth approach using Poverty Equivalent Growth Rate (PEGR) method. It also sees the effect of growth and income redistribution on poverty change using Decomposition of Poverty through Shapley value. This research is divided into two periods, i.e. 2012-2014 and 2014-2016 by grouping the territory of Indonesia into three areas, i.e. Java and Bali, Sumatra and Kalimantan Island, and Eastern Indonesia. The result shows that in 2012-2014, the income growth in Indonesia is inclusive, while in 2014-2016 its growth is not inclusive yet. This is due to the effect of economic growth still hampered by the effect of income inequality over the years 2014 to 2016.

Keywords: Inclusive Growth, Poverty, Pro Poor Growth, Decomposition, Growth Incidence Curve

[1] Nugraha Pukuh is the main author, works for Central Bureau Statistic Ogan Komering Ilir Regency. Email address: nugrahapukuh@yahoo.com
[2] Hayu Fadlun Widyasthika is co-writer, also works for Central Bureau Statistic Ogan Komering Ilir Regency.

When Growth is Inclusive in Indonesia?

Nugraha Pukuh and Hayu Fadlun Widyasthika, Central Bureau of Statistics

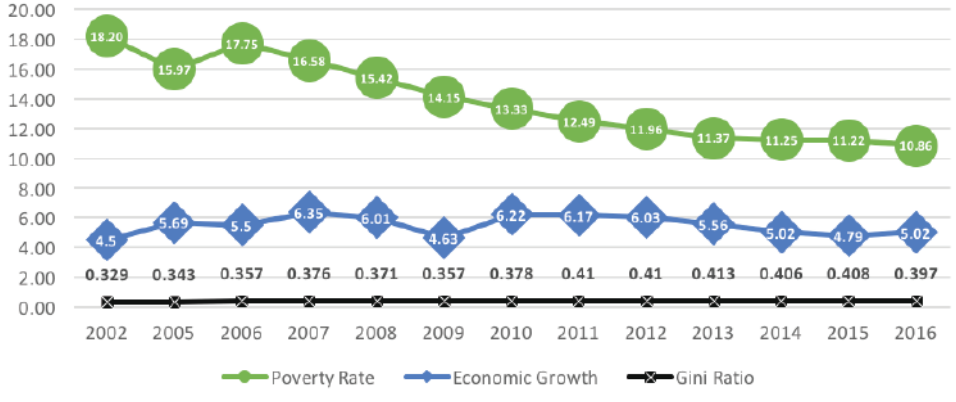
I. Introduction

1.1 Research Background

The development efforts of developing countries are identified with the efforts to increase per capita income or so-called economic growth strategies. However, many third world countries who quite successfully reached a relatively high level of economic growth began to realize that the apparently high growth has not led to a meaningful benefit for members of the society of the poorest and most in need of improvement in standard of living due to inequality of income distribution (Todaro, 1998). Klasen (2010) revealed that many countries in Asia have high economic growth rates in the last two decades. However, policy makers in Asian countries and international organizations are increasingly concerned about the improvement of this economic growth. This is due to the growth that happened was very uneven and often accompanied by an increase in income inequality. In addition, it seems the disadvantaged groups, including members of ethnic minorities, people in remote rural areas, and women, are not benefited proportionately from the rapid economic growth. There is a possibility that the economic growth that occurred can leave out the poor and disadvantaged.

Indonesia is one of the countries that were experiencing rapid economic growth in the post-economic crisis in 1998. Indonesia's economic growth rate in 2002 was 4.5 percent and continued to grow positively until 2016 with a value of 5.02 percent. High economic growth has reduced the level of poverty in 2002 from 18.20 percent to 10.86 percent in 2016. However, high economic growth actually increased the income inequality from 2002 to 2015 which shown by the increasing value of the Gini ratio. The ratio of Gini in 2002 was 0.329 and it became 0.397 in 2016.

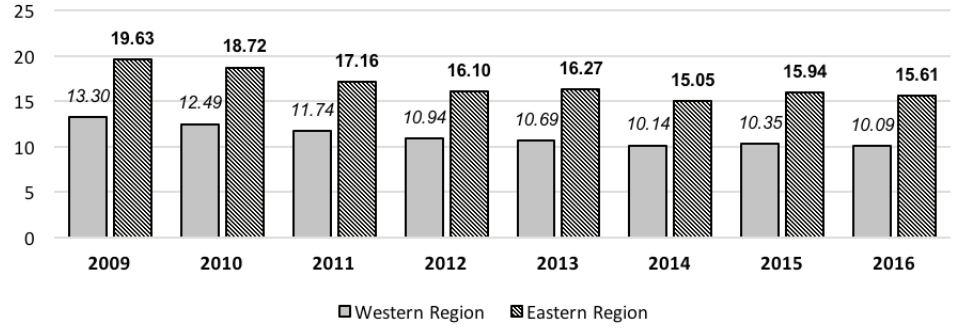
Figure 1. *Poverty Rate (%), Economic Growth (%) and Gini Ratio of Indonesia, 2002-2016*



Source: Central Bureau of Statistics, 2016 (processed)

Besides income inequality, there is also an area inequality matter in terms of the level of poverty. There is a huge difference in terms of poverty levels in some areas of the islands of Indonesia. The percentage of the poor population in the Eastern Indonesia showed a much higher number compared to the Western region of Indonesia. The data of Central Bureau of Statistics shows that the five highest area according to the level of poverty in the year 2016 is entirely in Eastern regions, namely Papua, West Papua, Gorontalo, Maluku, and East Nusa Tenggara. It is also seen in Figure 2 that the level of poverty in the Eastern region is always higher than those of the Western region throughout the year 2009 until 2016. The poverty level for the Western region in the year 2009 was 13.30 percent and was 19.63 percent for the Eastern region in the same year. Likewise in the year 2016, the poverty level in the Western region was 10.09 percent and in the East region was 15.61 percent.

Figure 2. *Percentage of Poor Population by Region in Indonesia, 2009-2016*



Source: Central Bureau of Statistics, 2016 (processed)
Description:
1. *Western Region: Java, Bali, Sumatra, and Kalimantan*
2. *Eastern Region: Sulawesi, Nusa Tenggara, Maluku, and Papua*

If the region's poverty rate is associated with the portion of GDP, it turns out that the share of GDP in Western Indonesia is much larger than the portion of GDP that originated from the Eastern region from 2011 to 2015. The contribution of western region GDP to Indonesia's GDP is 90.60 percent while the GDP from the eastern region only 9.40 percent in 2011. Then in 2015, the ratio of GDP contribution did not change significantly. In the western region it decreased slightly to 90.04 percent and in the eastern Indonesia it increased to 9.96 percent in 2015.

The inequality of income distribution and territory shows the importance of the government's role in designing and realizing the concept of economic growth that enables all segments of society to enjoy the benefits of economic growth so as to reduce poverty and inequality. Inclusive growth is considered as a strategy to overcome the inequality and its negative impact. It has been contained in the RPJMN period 2015-2019 which the purpose of Indonesia's development is to achieve a strong, inclusive, and sustainable economy. Sustainable and inclusive economic growth is a growth that meets the needs of the current generation without compromising the ability of future generations, distributed in different regions, and can reduce income inequality. Inclusive development can also be interpreted as a growth that not only creates new economic opportunities but also ensures equal access to the opportunities created for all segments of society, especially for the poor.

Research on inclusive growth was done by Ali and Son (2007) by applying Social Mobility Curve to see the equality in accessing education and health. Then the measurement is used by Anand et al. (2013) which is applied to the income side to measure inclusive growth. Azwar's research (2015) which measured and analyzed the phenomenon of inclusiveness of economic growth in South Sulawesi Province also used the same method. While Klasen (2010) adopted the concept of Poverty Equivalent Growth Rate (PEGR) to determine the dimension of inclusive growth. In contrast to the previous research, this study will focus on the characteristics of the income distribution growth to see the inclusiveness of growth in income aspects of Java-Bali, eastern Indonesia and western regions other than Java-Bali during the period 2014-2016.

1.2 Research Objective

Based on the research background, this study aims to:

1. Analyze empirically the phenomenon of inclusiveness of economic growth in Java and Bali, Sumatera and Kalimantan, and eastern Indonesia.
2. Analyze the level of economic growth benefits received by the poor in Java and Bali, the island of Sumatra and Kalimantan, and eastern Indonesia.
3. Analyze empirically the impact of economic growth and income distribution on poverty reduction in Java and Bali, Sumatra and Kalimantan island and eastern Indonesia.

II. Literature Review

Various definitions of inclusive economic growth have been defined by several experts and international organizations. According to Berg and Ostry (2011a), inclusive growth refers to pace and distribution of economic growth whereby growth becomes sustainable and effective in reducing poverty so the growth needs to be inclusive. IMF (2013) describes the growth usually considered inclusive if the benefits are shared widely across the population. OECD (2017) concept about Inclusive growth is economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society. And McKinley (2010) specifies two key dimensions of inclusive growth: (i) achieving sustainable growth that will create and expand economic opportunities, and (ii) ensure wider access towards these opportunities so that community members can participate and get the benefit from the growth. Inclusive growth usually refers to the goal of increasing high growth while providing productive employment and equal opportunity, so that all segments of society can share in the growth and employment, which ultimately fix inequality in the results obtained, especially for the poor.

Inclusive growth differs from pro poor growth. This growth is a broader concept than pro poor growth. Pro poor growth only focuses on the poor or the reduction of poverty. While inclusive growth is a growth that benefits everyone (Klassen, 2010).

However, the concept of inclusive growth actually originated from the concept of pro poor growth introduced by Kakwani and Pernia (2000) but developed by including non-income elements (Ranieri and Ramos, 2013). Habito (2009), Rauniyar and Konbur (2010) argued that inclusive growth is closely related to the concept of pro poor growth. Habito (2009) defines inclusive growth as Gross Domestic Product (GDP) growth leading to significant poverty reduction. Whereas Habito has included non-income elements through multidimensional poverty by examining non-income factors that affect the growth elasticity.

Whereas Kireyev (2017) mentions that the growth called inclusive if such growth reduces poverty and inequality. Growth reduces poverty if the average income of poor people is increasing. Growth reduces inequality if it helps streamline the Lorenz

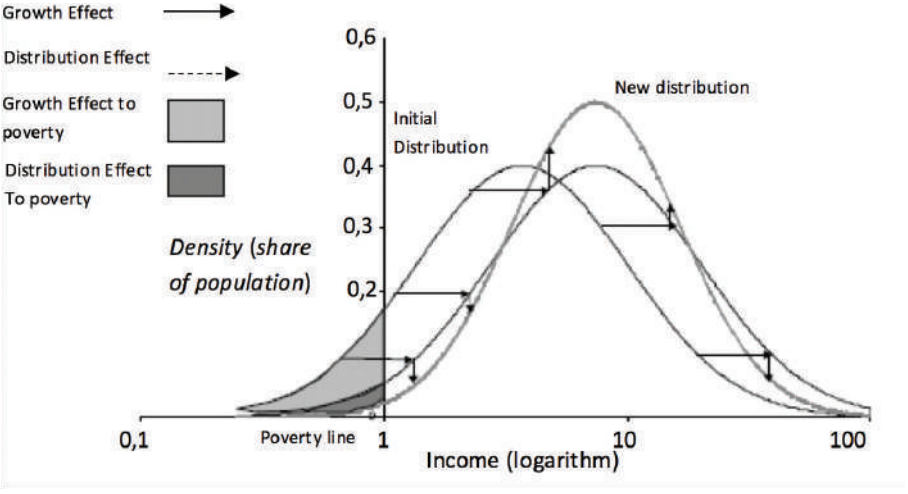
curve which plot the total percentage of income generated from various parts of a population when the population is classified according to the dimension of income.

Inclusive growth should not be separated from pro poor growth. Because both inclusive growth and pro poor growth see the distribution of economic growth received by each community group, although pro poor growth is more on the poor. In addition, inclusive growth also can be aligned with pro poor growth. Why ? because in fact, economic growth is often only enjoyed by the rich. While the poor have been left behind in terms of income growth.

The growth that happens is never inclusive because in many countries, the poor have not seen their incomes rise for years. The gap between the rich and the poor has widened, with those at the top capturing the 'lion's share' of growth. Share of economic growth enjoyed by the poor is not the same proportionately with the rich. Therefore, the inclusive growth will also be linked to improving the standard of living of the poor or reducing poverty.

The triangular relationship between growth, distribution and poverty is explained by Bourguignon (2004). Changes in poverty levels are a function of growth and distribution change. For example, the amount of poverty is defined as the area under the curve to the left of the poverty line (shaded area) and it is assumed that the income per capita of the population follows the normal log distribution. The x-axis shows the density of the income distribution i.e. the number of individuals at each income level in the logarithmic scale. The y axis shows the share of population with a certain level of income to the entire population.

Figure 3. *Decomposition of poverty rate to growth effect and distribution effect*



Source: Bourguignon, 2004

Changes in poverty in two time periods are shown in shaded areas in Figure 3. In such cases, the effect of growth (shaded area brighter) contributes more than the effect of distribution (darker shaded area). If the benefits of growth are neutral or evenly distributed then the shape of the distribution curve does not change, and the effect is only the effect of growth, while the effect of the distribution is zero.

Measurement of the level of financial inclusion and inclusive growth in Indonesia was conducted by Sanjaya and Nursechafia (2015) by using data of the province. Methods used namely Index of Inclusive Growth (IIG) developed by social

opportunity function method by increasing the average level of opportunity and equity index of opportunities. The result shows that several provinces have been successful achieving inclusive growth include Central Java, West Sumatra, Maluku, South Kalimantan, West Java, Bali, Banten, and Central Kalimantan. In Maluku, inclusive growth was influenced by contributions of a higher chance of distribution. Increasing opportunities for the poor could increase the growth inclusive in Riau, Banten, Southeast Sulawesi, Bali, and South Kalimantan. For other provinces, the goal of equalization can be achieved by increasing opportunities such as Jakarta, Bangka Belitung, North Sumatra, North Maluku, West Papua and Papua.

Kireyev (2017) examines inclusive growth in Senegal using Growth Incidence Curve (GIC). Between 2001 and 2005, the GIC curve was positively curved, indicating an increase in inequality during this period which meant growth was not inclusive. Between 2005 and 2011, the average growth rate curve (GIC) was above zero but flat in shape, indicating a lack of a clear trend in changes of inequality. On average during the year of 2001-2011, an increase on average of consumption clearly confirms the decline in poverty, because middle-class improve their relative position. But for the year 2001-2011 overall, the GIC has a slightly positive slope, which worsens the inclusiveness of growth.

Existing researches rarely match inclusive growth and pro poor growth. Yet these two concepts of growth cannot be separated. Nor studies linking growth with income distribution and poverty to analyze inclusive growth are also rare. Inclusive growth should be linked to poverty because the poor do not get the equivalent benefits compared to the non-poor.

This research linked inclusive growth and pro poor growth by matching the results of Growth Incidence Curve and Poverty Equivalent Growth. Then, look at the triangle relationship between growth, distribution and poverty through the poverty decomposition to see growth effect and distribution effect on poverty change.

III. Research Methodology

3.1 Scope

Analysis of the inclusiveness of economic growth in this study is divided into two periods, i.e 2012-2014 and 2014-2016. In addition, the phenomenon analysis will be described in 3 regions i.e:

1. Java and Bali island which consists of seven provinces (DKI Jakarta, West Java, Central Java, East Java, DI Jogjakarta, Banten, and Bali).
2. Sumatera and Kalimantan Islands which consists of fifteen provinces (DI Aceh, North Sumatra, West Sumatra, Riau, Riau Islands, Bengkulu, Jambi, South Sumatra, Bangka Belitung, Lampung, South Kalimantan, West Kalimantan, East Kalimantan, Kalimantan Central, and North Kalimantan), and
3. East Indonesia which consists of twelve provinces (South Sulawesi, West Sulawesi, Southeast Sulawesi, Central Sulawesi, North Sulawesi, Gorontalo, Maluku, North Maluku, West Nusa Tenggara, East Nusa Tenggara, Papua and West Papua).

3.2 Data

This study uses secondary data from the Central Bureau of Statistics (BPS) in the form of raw data of household expenditure which is the result of the National Social Economic Survey (Susenas) Indonesian Consumption Module period 2012 to 2016. An approach for calculating household income using the expenditure value, because it is considered more reflective of the actual circumstances. According to Nunez and Espinosa (2005), the expenditure approach would better to be used as a decent standard of living due to in household surveys, respondents tend to report

lower income while their spending closer to actual conditions. Any household tends to adjust their spending through transfer or donation when the income is low.

3.3 Analysis Method

3.3.1 Growth Incidence Curve (GIC)

The GIC curve is one of the ways that Kireyev (2017) used to examine whether income growth in a region is inclusive or not by using graphs. GIC was introduced by Ravallion & Chen (2003) by calculating income growth per capita (or alternatively with expenditure growth rate per capita) at each percentile point along the income distribution. If the GIC curve forms has downward sloping or negative slope along the income distribution then the growth has provided more benefits to the poor and decreased inequality which means that the growth is inclusive. Conversely, if the GIC has an upward sloping or a positive slope along the income distribution then the top population group receives more benefits during the economic growth process, inequality increases and it means that the growth is not inclusive (Kireyev, 2017).

GIC measurement method is done in the following way:

1. In the first stage, the sample distribution (population) is grouped based on the proportioned income level using per capita expenditure data.
2. After being grouped, calculation of the growth incidence of each expenditure group (Gi) is performed with the formula:

$$\textbf{Growth Incidence (Gi)}\ (ta - tn) = \frac{\textbf{mean consumption per capita}\ (i;ta) - \textbf{mean consumption percapita}(i;tn)}{\textbf{mean consumption per capita}(i;tn)} \quad (3.1)$$

which:

(*i;ta*) = group i, year/initial period
(*i:tn*) = group i, year/end period

3. Then compare the Growth Incidence Curve to the average growth line of all expenditure groups.

Inclusive growth analysis method which already exists only produce score without being able to show how much share received by the poor. Growth Incidence Curve is a growth chart of income or expenditure by expenditure group (percentile). So this curve can show how much share received by the poor and the non-poor and show the n^{th} percentile that needs to be assisted to increase their income.

3.3.2 Poverty Equivalent Growth Rate (PEGR)

PEGR method introduced by Kakwani, et. Al. In 2004. This method is an improvement of pro poor growth method using Poverty Bias of Growth (PBG) by Culloch and Baulch (2000) then Pro Poor Growth Index by Kakwani and Pernia (2000). PEGR has confirmed the criterion of monotonicity that previous methods did not address. Axiom of monotonicity implies that the rate of poverty reduction should be a monotonically rising function of pro poor growth rate. If value of function of pro poor growth rate increases means rate of poverty reduction is also greater, and otherwise smaller value of its function then smaller decrease in poverty that occurs. PEGR method has confirmed the axiom criteria of monotonicity, because greater value of PEGR indicates greater poverty reduction. And negative PEGR score shows no poverty reduction. In addition PEGR can be applied to all FGT poverty measures such as, headcount, poverty gap ratio, severity of poverty index and Watt poverty measure.

This method is used to explain the magnitude of economic growth itself, as well as the level of benefits that the poor obtained from economic growth achieved. The value of PEGR can be formulated as follows: PEGR $= \gamma^* = (\delta / \eta)\gamma$ (3.2)

which: total elasticity of poverty (δ), growth elasticity of poverty (η), and $\hat{\gamma}$ is actual growth.

Then the value of Poverty Equivalent Growth Rate (PEGR) is compared with the value of actual growth where the criteria are as follows:

1. $\hat{\gamma}^* = \hat{\gamma}$ It means growth is neutral, everyone receives the same benefits proportionately from the growth.
2. $\hat{\gamma}^* > \hat{\gamma}$ It means growth is pro poor growth, the poor population more receive benefits from the growth.
3. $0 < \hat{\gamma}^* <$ It means growth is not pro poor growth yet, the benefits of growth are more accepted by non-poor people (inequality increases) but poverty reduction still occurs.
4. $\hat{\gamma}^* < 0$ It means growth is anti pro poor growth or benefits of the growth enjoyed by non-poor people, and poverty increases.

3.3.3 Poverty Decomposition with Shapley Value

The poverty change between the two periods can be decomposed due to the effect of growth and the effect of income redistribution. Shapley decomposition of poverty is used to explain the change in poverty. There are several methods that can be used to decompose poverty, such as Datt and Ravallion (1992) approach and Shapley Value approach by Shorrocks (1999). This research uses poverty decomposition with Shapley Value approach because the result obtained already does not contain a residual element which is the interaction of the effects of growth and distribution. The poverty change can be completely decomposed into the effect of growth and the effect of distribution with Shapley Decomposition of Poverty.

Shapley decomposition of poverty model in the form of FGT (Foster-Greer-Thorbecke) normalization can be written as follows:

$$\Delta P = P_2(z,\alpha) - P_1(z,\alpha) \tag{3.3}$$

$$= \underbrace{0.5\left[\left(P_1(\frac{z\mu_1}{\mu_2},\alpha) - P_1(z,\alpha)\right) + \left(P_2(z,\alpha) - P_1(\frac{z\mu_2}{\mu_1},\alpha)\right)\right]}_{\text{Effect of Growth}} + \underbrace{0.5\left[\left(P_2(\frac{z\mu_2}{\mu_1},\alpha) - P_1(z,\alpha)\right) + \left(P_2(z,\alpha) - P_1(\frac{z\mu_1}{\mu_2},\alpha)\right)\right]}_{\text{Effect of Distribution}} \tag{3.4}$$

which:

ΔP = Poverty Change.

$P_1(z,\alpha)$ = the normalization form of FGT poverty dimension at the beginning of the period.

$P_2(z,\alpha)$ = the normalization form of FGT poverty dimension at the end of the period.

$P_i(\frac{z\mu_t}{\mu_s},\alpha)$ = the normalization form of FGT poverty dimension if there is a change in the average income from period t to period s, for t ≠ s, and t, s = 1, 2.

IV. Result and Discussion

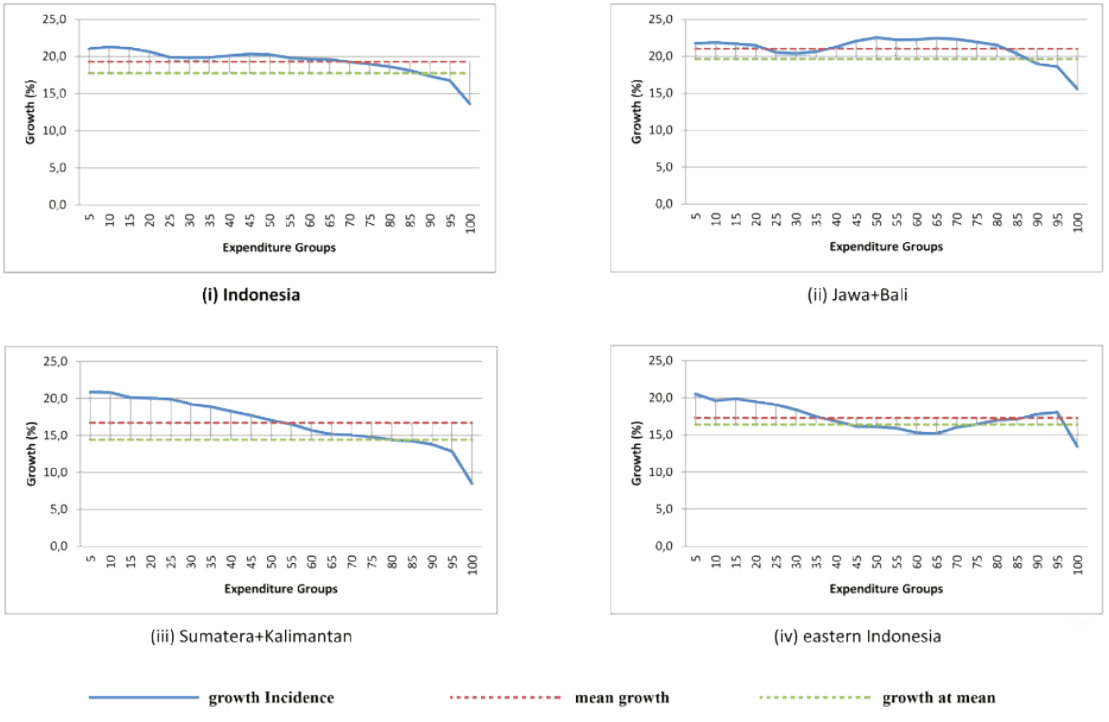
4.1 Inclusive Growth

Economic growth can be called inclusive if growth can reduce poverty and inequality. The dimension of the inclusive growth can be seen through the Growth Incidence Curve (GIC). Growth Incidence Curve of Indonesia period 2012-2014 shown in Figure 4 (i) has greater value than zero (positive) and negative slope means

that the higher expenditure groups (percentile) the lower expenditure growth. This condition indicates that during that period, the population in the low-spending (poor) group received more benefits from growth or it could be interpreted that Indonesia's growth was inclusive. Seen from the figure 4, the 70 percent downward spending group had above average growth and the top 30 percent had below average growth.

If described based on previously classified areas, the three regions show the same conditions where growth is positive and the direction of the slope is negative. However, the three regions have slightly different growth rates and distribution patterns. The highest average growth rate was found in the islands of Java and Bali with average growth reaching 21.01 percent followed by East Indonesia by 17.27 percent and Sumatera Island and Kalimantan by 16.69 percent. This result seems to prove the issue that development is more perceived by people in Java is correct.

Figure 4. *GIC period 2012-2014*



Source: Author's calculation base on Susenas (BPS)

A slightly different pattern occurs in Java and Bali as shown in Figure 4 (ii). Growth occurred in the lowest 20 percent of expenditure group, then the 25-35 percent expenditure group was slightly below average growth, then become high again in the middle expenditure group that is in the percentile between 40 and 80 percent. While in the top 20 percent expenditure group back down below the average growth. The formed pattern tend to be more flat but still have a negative slope direction indicating growth is still quite inclusive.

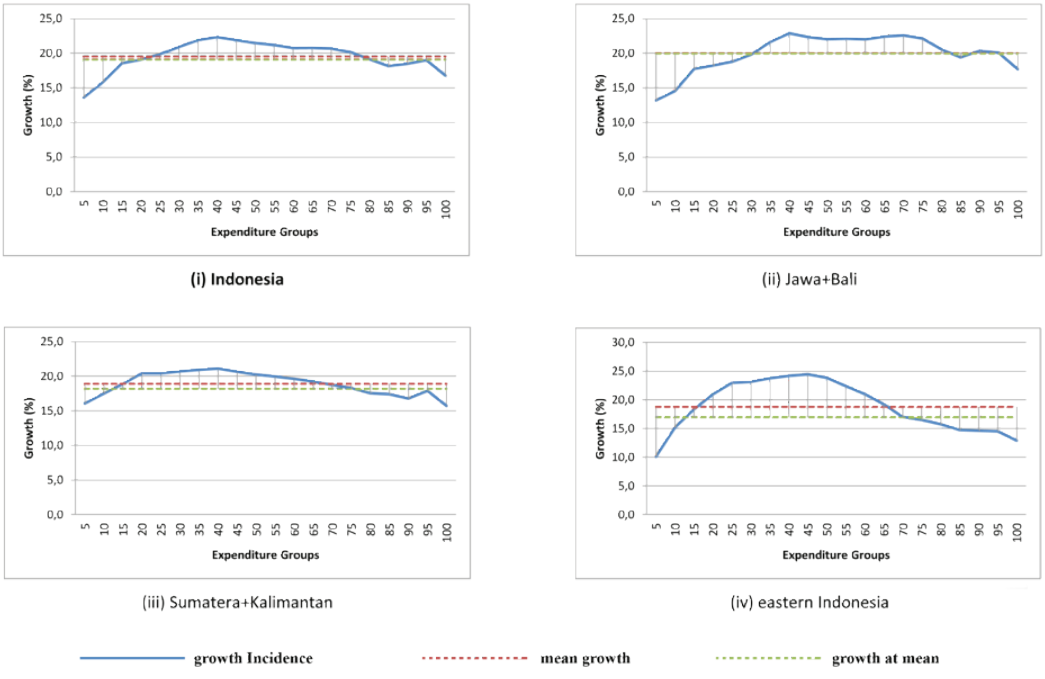
Figure 4 (iii) describes the distribution of expenditure growth conditions per capita in Sumatra and Kalimantan island. The curve shows a pattern that

is almost similar to national conditions but with a steeper slope in which above average growth is perceived by bottom 50 percent expenditure group. While the condition in eastern Indonesia in Figure 4 (iv) shows that the lower 35 percent of the population expenditure groups enjoy more growth benefits than the larger expenditure groups although the growth in the 90-95 percent expenditure group is also above the average. Based on the GIC curve, it can be concluded that the growth which occurred in the three regions in the period 2012-2014 is inclusive.

Indonesia's growth incidence curve for the period 2014-2016 in Figure 5 shows a different form than the previous period. It provides information that there is a shift/ change in distribution in 2014-2016, although the average growth that occurred relatively the same which is about 19 percent. The four curves show the intermediate group have above average expenditure growth and the lower and upper expenditure groups have low growth. It means that growth benefits most people in the middle of expenditure distribution.

Nationally, the expenditure group between 25 to 75 percent had above average growth. While the population with the lowest 25 percent and the top 25 percent expenditure group had below average growth. The direction of the GIC slope in this period tends to be positive which means growth is more enjoyed by the population of the upper expenditure group or not inclusive yet.

Figure 5. *GIC period 2014-2016*



Source: Author's calculation base on Susenas (BPS)

If described into three areas, in the period 2012-2014 the highest average growth is still experienced by people in Java and Bali with an average growth of 20.02 percent. However, the second and third rank is changed, i.e. Sumatra and Kalimantan has become 18.89 percent and the lowest is in Eastern Indonesia that is 18.77 percent. Despite having the highest growth rates, the distribution growth in the Java and Bali regions has a steeper positive slope direction that potentially increases inequality. Seen from Figure 5 (ii) that growth is more enjoyed by non-poor

community groups. The lowest growth occurred in the expenditure group below 30 percent, while the highest growth was enjoyed by the population of the expenditure group 35 to 80 percent. This indicates that growth in the region is not inclusive yet.

Growth in Sumatra and Kalimantan island in figure 5 (iii) shows a similar pattern to national distribution growth, however, with a more sloping pattern around the average growth line. So the condition of growth in this region in the period 2014-2016 is difficult to be defined by just looking at the GIC. Meanwhile, in figure 5 (iv), the growth of expenditure in eastern Indonesia looks quite different than the other two regions. Although it has similarities that the benefits of growth are enjoyed by people in the middle of the income distribution, but people who enjoy the growth in this region is largely middle group and below (20 to 65 percentile) with higher growth rate compare toother regions. While the top 65 percent expenditure group had below average growth. So the pattern formed shows a negative slope direction that characterizes inclusive growth, although growth in the lowest 15 percent group is still below average.

4.2 Pro Poor Growth

The next method used to see inclusive growth is the Poverty Equivalent Growth Rate (PEGR) approach. The result of PEGR index can reinforce the analysis gained from the GIC because it is able to explain the level of benefit that the poor received from the process of income growth. The difference between the PEGR index and the positive real growth index shows that economic growth is pro poor or the benefit of economic growth is more enjoyed by the poor. And one of the characteristics of inclusive growth is pro poor, although pro-poor growth is not necessarily inclusive. In other words, the PEGR method becomes an evaluation tool for measuring inclusiveness but cannot infer directly to the inclusiveness of growth in a region or period.

Table 1 below shows that in the period of 2012-2014, economic growth in Indonesia, both nationally and regionally, has positive value as well as PEGR value and PEGR difference to real growth. This value means that the period has a pro-poor growth. This result is consistent with the results described by the GIC where all curves of the period indicate inclusive growth.

Table 1. *Table of Composition of Indonesia's Poverty Equivalent Growth Rate by region in the period of 2012-2014 and 2014-2016*

Regions	2012-2014			2014-2016		
	Real Growth	PEGR	PEGR-Growth	Real Growth	PEGR	PEGR-Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Jawa+Bali	0.19613	0.21426	0.01813	0.19952	0.16193	-0.03759
Sumatera+Kalimantan	0.14393	0.18866	0.04473	0.18165	0.16643	-0.01522
Eastern Indonesia	0.16365	0.18554	0.02188	0.16945	0.19172	0.02226
Indonesia	0.17728	0.20423	0.02696	0.19076	0.16803	-0.02273

Source: Author's calculation base on Susenas (BPS)

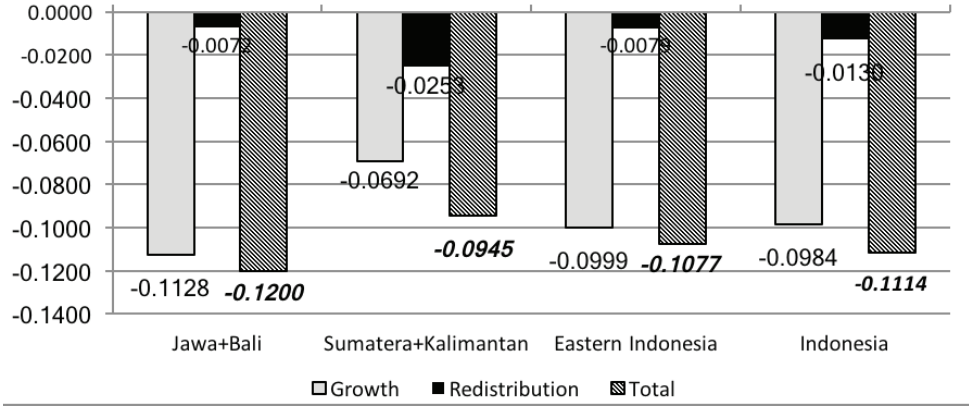
The PEGR period of 2014-2016 also shows consistent results against the growth incidence curve. The difference between PEGR index and actual growth in Java and Bali, Sumatera and Kalimantan, as well as nationally shows the negative result which means growth is not pro poor yet so it cannot be inclusive. Meanwhile, for the Eastern Indonesia region shows a positive value which means the growth has been pro poor.

4.3 Decomposition of Poverty

Analysis of the poverty Decomposition can be used to explain the factors that influence poverty change between the two periods. So by doing the decomposition of poverty, the results obtained from measurement of GIC and PEGR can be explained more thoroughly, especially regarding the influence of the growth and income redistribution towards poverty. The results of the decomposition of poverty can be positive which means it has the effect of increasing poverty while a negative value means it has the effect of reducing poverty.

The total effect of income changes which is approached by the value of expenditure shows negative result both in the period 2012-2014 and the period 2014-2016. It means that in total (growth and distribution), income change in both periods has a potential to reduce the poverty. Nationally, income change has a potential to reduce poverty by 11.14 percent in the period 2012-2014 and decrease 6.96 percent in the period 2014-2016.

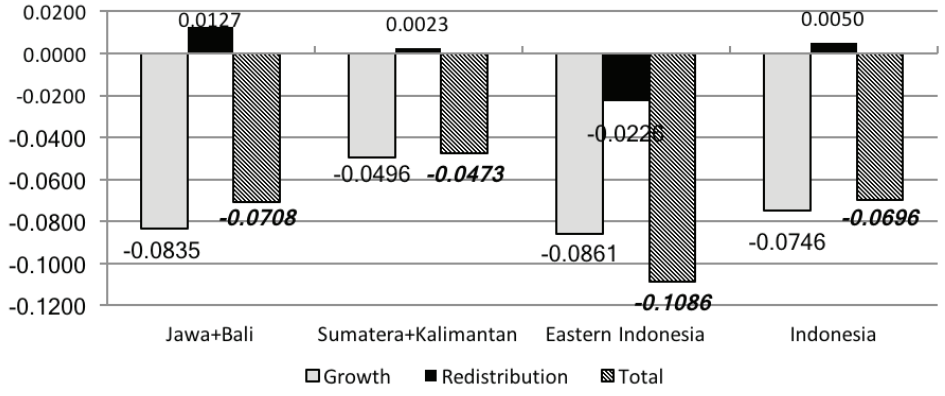
Figure 6. *Shapley Decomposition of Poverty in 2012-2014*



Source: Author's calculation base on Susenas (BPS)

Decomposition of poverty change due to income change in the period 2012-2014 in Figure 6 shows that both the growth effect and the effect of income distribution contribute to poverty reduction. This condition occurs in all regions of Indonesia including if measured nationally. The growth effect that gives the greatest reduction effect against poverty is found in Java and Bali, i.e. 11.28 percent. While the redistribution effect which gives the largest poverty reduction effect occurred in Sumatra and Kalimantan, i.e. 2.53 percent. These results indicate that inclusive and pro poor growth can lead to poverty reduction through income growth as well as income redistribution.

Figure 7. *Shapley Decomposition of Poverty in 2014-2016*



Source: Author's calculation base on Susenas (BPS)

Different phenomenon showed by the decomposition of poverty in the period 2014-2016 as shown in Figure 7. The income change in Java and Bali, Sumatra and Kalimantan, as well as nationally, it has a positive income redistribution effect which means potentially increasing poverty. While the Eastern Indonesia has a negative redistribution effect that reduces poverty. The result of this poverty decomposition is consistent with the previous analysis, where income redistribution on non-inclusive growth has effect in increasing poverty. It means that there is a potential increase in poverty because the income redistribution process is not running as expected or there is an increase in income inequality.

V. Conclusions

The inclusiveness of growth of a region or country in terms of income can be measured and viewed using a variety of methods, including Growth Incidence Curve (GIC) and Poverty Equivalent Growth Rate (PEGR) with pro poor growth approach. In this paper, inclusive growth in Indonesia analysis was conducted by using GIC, PEGR, and Shapley Decomposition of Poverty method in which all three methods showed consistent results. It shows that these three methods can be paired in the measurement of the inclusiveness growth in an area.

The results of inclusive growth analysis shows that economic growth in Indonesia in the period 2012-2014 is inclusive both nationally and in three areas where the growth is more enjoyed by the low expenditure population than the upper expenditure population. Meanwhile, in the period 2014-2016 Indonesia's growth has not been inclusive yet except in eastern Indonesia. In this period, growth provides benefits for most people in the middle of expenditure distribution while lower and upper spending groups have below average growth. It indicates a phenomenon of strengthening economic conditions in the middle class in Indonesia. But this fact must be investigated further.

In addition, the result obtained show that the region with an inclusive growth will result in a difference between the PEGR index and the actual growth which is positive (pro poor), although the pro poor growth are not necessarily inclusive. Similarly, the result of poverty decomposition proves that inclusive growth will have a growth effect and redistribution of income that decreases poverty. However, poverty reduction (total effect) can still occur in non-inclusive growth.

References

Ali, I. and H. H. Son. (2007). *Measuring Inclusive Growth*. Asian Development Review, Vol.24, No.1, p.11–31.

Anand, Rahul. Saurabh Mishra, and Shanaka J. Peiris. (2013). *Inclusive Growth: Measurement and Determinant.* IMF Working Paper, WP/13/135.

Araar, Abdelkrim, Jean-Yves Duclos (2013). *User Manual for Stata Package DASP: Version 2.3.* PEP, World Bank, UNDP and Université Laval.

Azwar. (2016). *Pertumbuhan Inklusif di Provinsi Sulawesi Selatan Dan Faktor Faktor yang Mempengaruhinya.* Jurnal BPPK Volume 9 Nomor 2 Tahun 2016.

Badan Pusat Statistik. (2013). *Profil Kemiskinan Di Indonesia September 2012*. Berita Resmi Statistik No. 06/01/Th. XVI, 2 Januari 2013.

_____.(2015). *Profil Kemiskinan Di Indonesia September 2014*. Berita Resmi Statistik No. 06/01/Th. XVIII, 2 Januari 2015.

_____.(2017). *Profil Kemiskinan Di Indonesia September 2016*. Berita Resmi Statistik No. 05/01/Th. XX, 3 Januari 2017.

_____. (2016). *Penghitungan dan Analisis Kemiskinan Makro Indonesia 2016.*

_____. (2016). *Produk Domestik Regional Bruto Provinsi-Provinsi Di Indonesia Menurut Lapangan Usaha 2011-2015.*

_____. (2016). *Statistik Sosial dan Ekonomi Rumah Tangga hasil Survei Sosial Ekonomi Nasional (SUSESNAS) Tahun 2013, 2014 dan 2015.*

Berg, Andrew, and Jonathan D. Ostry. (2011)a. "*Inequality and Unsustainable Growth: Two Sides of the Same Coin?*" IMF Staff Discussion Note 11/08, Washington, DC.

Bourguignon, F. (2004). *The Poverty-Growth-Inequality Triangle*. World Bank Washington, DC.

Habito, C.F. (2009). Patterns of Inclusive Growth in Asia: Insights from an Enhanced Growth Poverty Elasticity Analysis. *ADBI Working Paper Series, No. 145*. Tokyo, Asian Development Bank Institute. IMF. 2013. Jobs and Growth: Analytical and Operational Considerations for the Fund. Washington DC: IMF.

Kakwani, N, Shahid Khandker and Hyun H.Son. (2004). *Pro poor growth: Concepts and Measurement with Country Case Studies.* UNDP Working Paper.

Kireyev, A. (2017). Inclusive Growth: Decomposition, Incidence, and Policies Lessons for Asia. *ADBI Working Paper 689*. Tokyo: Asian Development Bank Institute.

Klasen, S. (2010). *Measuring and Monitoring Inclusive Growth: Multiple Definitions, Open Questions, and Some Constructive Proposals.* ADB Sustainable Development Working Paper Series, No.12.

Nuñez, J and S. Espinosa. (2005). *Pro-Poor Growth and Pro-Poor Programs in Colombia*. Documento Cede 2005-51.

Raniaeri, R and Ramos, R Almeida. (2013). *Inclusive Growth: Buliding Up A Concept.* IPC-IG Working Paper, No 104. Brasilia, International Policy Centre For Inclusive Growth.

Ravallion, M., and Chen, S. (2002). *Measuring pro-poor growth*. Elsevier, 93-99.

Rauniyar, G. and Kanbur, R. (2010). *Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective.* Mandaluyong City, Philippines, Asian Development Bank.

Sanjaya, I Made and Nursechafia. (2016). *Inklusi Keuangan Dan Pertumbuhan Inklusif: Analisis Antar Propinsi di Indonesia.* Buletin ekonomi Moneter dan Perbankan, Volume 18, Nomor 3, Januari 2016.

Shorrocks, A. F. (1999). *Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value*. University of Essex. Colchester.

Todaro, Michael P. (1998). *Pembangunan Ekonomi di Dunia Ketiga*. Jilid 1. Edisi Keenam. Alih Bahasa. Jakarta: Erlangga.

The Contribution of Natural Resources on Economic Welfare In Indonesia

Palupi Anggraeni[1]
PhD Candidate, School of Environment, Griffith University, Australia

Peter Daniels, and Peter Davey
School of Environment Science, Griffith University, Australia

Abstract

The objective of this research is to examine the relationship between natural resource abundance and economic welfare at the national level of Indonesia. Four variables of institutional quality, investment level, education level, and industry value added are considered in the study as the moderating variables between economic welfare and natural resource rents. This study found that the results is not robust to conclude that the rent generated from natural resources is contribute to the economic welfare in Indonesia. Nevertheless, this study found there are three moderating variables that can become a support to strengthen the relationship between natural resources and economic welfare, these are institutional quality through improvement in the political stability, strengthening the accountability, stringent the regulations, and enforcing the rule of law; primary completion level; and industry value added.

Keywords: natural resources, economic welfare, Indonesia, investment, institution, primary completion level, industry value added.

[1] Palupi Anggraeni is a PhD candidate at School of Environment, Griffith University, Australia. She is also an officer at Directorate General of State Asset Management in Ministry of Finance of the Republic of Indonesia. Email address: upi.upiko@gmail.com

The Contribution of Natural Resources on Economic Welfare In Indonesia

Palupi Anggraeni, Peter Daniels, and Peter Davey, Griffith University

I. Introduction

The influence of the quality and quantity of environmental and natural resources upon growth in economic welfare has been widely accepted since the late 1960s (Toman, 2003). Natural resources, particularly mining assets, have been identified as one of the ten most significant variables influencing variation in long-term economic growth (GDP per capita) rates (Xavier, Doppelhofer, & Miller, 2004). However, the more general impact of natural resource endowments on a country's long-term welfare is unclear. Many developing low-income and lower middle-income countries that have rich endowments of natural resources (and resource-dependent economies) have low or stagnant growth rates. This phenomenon is called the "natural resource paradox" or "resource curse" (Atkinson & Hamilton, 2003; Auty, 2007; Brunnschweiler, 2008; Dietz, Neumayer, & De Soysa, 2007; Gaitan & Roe, 2012; Sachs & Warner, 1995).

Indonesia is a country which might be represented by the positive resource endowment and development view perceiving natural resource endowment to be a blessing. It is often considered to be a country that successfully overcame the resource curse during the 1970s and 1980s (Rosser, 2007). As a nation dependent on exhaustible natural resources, Indonesia was able to achieve positive rates of per capita GNP growth between 1980 and 1992 (Mikesell, 1997), and is grouped as one of only four countries among 65 resource-rich countries that achieved long term investment and per capita GNP growth (Gylfason, 2001). Even though this success was probably influenced by the nature of the relevant political and social context, as well as the economic opportunities from other countries such as foreign aid from the US and investment flows from Japan at that time (Rosser, 2004), Indonesia has managed to escape the resource curse (Hanif & Bria, 2016; Rosser, 2007).

Despite the claim that Indonesia is not suffering from the resource curse at an overall national level, the natural resource paradox can be found at the provincial level. As an archipelagic country, the natural resources in Indonesia occur asymmetrically, in that some provinces are endowed with natural resources while others are poor. However, many of the resource-rich provinces are amongst the least-developed regions in Indonesia (NRGI, 2015). One example of provinces that suffer from the natural resource curse is West Papua. This province is endowed with a vast resource of gold and has one of the biggest gold mines in the world; however, the province's poverty rate is one of the highest in Indonesia (Aji, 2015). The poverty rate in March 2017 was 25.10%, far above the national average poverty of 10.64% (Statistics Indonesia, 2017). This shows that the economic growth in Indonesia is not equally distributed.

At the national level, despite the positive economic performance that has been accomplished, an analysis using the concept of natural capital basis for sustainable development suggests that the Indonesian economy has neither followed a sustainable path nor progressed in the right direction to achieve substantial improvements in welfare related to natural resource use. This is justified because mineral extraction, forest resource depletion, and environmental degradation in Indonesia have been increasing, and are potentially exceeding sustainable

yield levels. Hence, this condition may jeopardise Indonesia's future sustainable development (Alisjahbana & Yusuf, 2004; Mollin, 2014). The high dependence of this country on natural resources was demonstrated when the export price of natural resource commodities decreased in 1982 and caused a major decline in the gross investment of Indonesia. This suggests that Indonesia had not invested adequately in productive industries that could offset the reduction in resource-based export earnings (Mikesell, 1997). Furthermore, Indonesia encounters problems of inequality, high vulnerability of the poor and the persistence of different kinds of poverty (World Bank, 2016).

To improve this situation, the Indonesian government has been moving towards a focus upon inclusive and environmentally sustainable growth, where natural resource management sectors have received high priority support (ADB, 2015). Research by Atkinson and Hamilton (2003) suggests that resource mismanagement in a country, by not prudently saving and investing the rents derived from the resource extraction, is a problem for sustainability. The 2015 report from the Asian Development Bank (ADB) stated that sustainable growth goals will require an improvement in environmental and natural resource management, by strengthening institutions in rehabilitation and conservation.

Research suggests that complementing natural resources with good institutions is one of the key to social and economic success in a country. The quality of institutions is a very strong factor in improving welfare (Brunnschweiler, 2008) and in avoiding the resource curse taking hold in a country (Arezki & van der Ploeg, 2010; Bulte, Damania, & Deacon, 2003; Collier & Goderis, 2012; Mehlum, Moene, & Torvik, 2006). The institutional factor can be considered by measuring corruption, bureaucratic quality, and the rule of law (Dietz et al., 2007).

Other three factors are also going to be investigated in this study, these are investment, education, and industry value added. The factor of investment level is included in the discussion based on the work from Havranek, Horvath, and Zeynalov (2016) using meta-analysis study from previous selected studies in this particular area. They found several factors as important influences upon the natural resource and economic growth relationship, including the investment level.

The next factor considered in the study is education. It is said that educations are one crucial factors on economic growth. A research by Behbudi, Mamipour, and Karami (2010) suggest that the neglection of human capital development by not allocating enough expenditure in education has concluded as one of the cause of slow-growth in resource-rich countries. Shao and Yang (2014) supported this by saying that the investment in education plays crucial role on economic growth.

As the last factor considered in this study, industry value added was chosen based on one of the Government of Indonesia's regulation that ban exports of some minerals, in order to increase the development of domestic processing facilities and become an exporter of value-added industry products. It will be interesting to explore whether the policy to ban raw materials export in order to develop the downstream processing industries, can gives a positive contribution to economic welfare of Indonesia. Value added itself is defined as the difference between an industry's gross output (sales), and its intermediate input (the purchases of secondary input), while the process to adding more value for a product from its original state will make the product become more valuable (AgMRC, 2017). The value adding process can be done for all kind of products. In Moldova, a research by (Golban, 2014) concludes that high value added in horticultural products lead to high value revenues, high value wages, and result on the development of the country.

In this paper, the focus of the study is to examine four variables of institutional quality, investment level, education level, and industry value added, as the moderating variables between economic welfare and natural resource abundance. Among these four variables, industry value added is the only variable that most

likely has never been studied in previous literatures. This study will explore if this policy is effective to improve the economic welfare through the rents generated from natural resources.

Despite the fact that the other three variables of institutional quality, investment level, and education level have been analysed in many literatures, they are most likely focused on cross country analysis instead of time series analysis.

II. Literature Review

2.1 Natural Resources

The setup of the variable of natural resource abundance is significant because previous research has shown that the multiplicity of natural resource variables used in resource-welfare studies has empirically led to different results regarding the resource curse hypothesis (Brunnschweiler, 2008). To illustrate this, several studies have used natural resource exports percentage per GDP as the proxy of natural resources (Norrbin, Pipatchaipoom, & Bors, 2008; Sachs & Warner, 1995). Other research uses the share of rents generated from the natural resource sector per GDP (Atkinson & Hamilton, 2003), value of resource commodity exports (Bulte et al., 2003; Collier & Goderis, 2012; Dietz et al., 2007), and some employ the value of natural resource commodities (Ambrey, Fleming, & Manning, 2016; Brunnschweiler, 2008; Gaitan & Roe, 2012).

As Havranek et al. (2016) concluded, employing the measure of resource abundance such as natural resource rents data usually leads to a negative resource curse, which means that economic growth in a country is bolstered by the existence of its natural resources. In contrast, employing measures of resource dependence, such as the use of data of natural resource exports as a percentage per GDP in a study often leads to a positive result of resource curse, which means the natural resources are inhibiting the economic growth of a country.

Since this study intends to measure the contribution of the abundance of natural resources that Indonesia has to its welfare, a total natural resource rents (% of GDP) indicator published by the World Bank will be obtained as the proxy of natural resources. The indicator is the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents, which have been made available annually from 1990 until 2015.

2.2 Economic Welfare

For the concept of welfare, the limited nature of this specific study must be recognised as welfare is a very broad concept and there are many different associated terminologies, namely economic growth, economic welfare, sustainable development, human welfare, quality of life, and well-being. Even though the meaning of these terms are similar, they are not the same and give a different emphasis in their definition. For example, if economic growth focuses only on the measurement of output produced in a country, then economic welfare focuses on the impact of economic growth on material living standards rather than on production. Further, "sustainable development" concentrates on economic and social issues within environmental constraints (maintenance of natural capital), while human welfare, quality of life, and well-being are three terms that emphasize the value of human life such as a sense of security, social acceptance, and personal fulfilment (Jacobs & Slaus, 2010).

In order to limit welfare, this study will be specifically restricted to the examination of economic welfare. This concept is utilised to focus on the impact of economic growth including government services such as health and education for households and individuals, while also emphasizing income distribution and wealth in society. For its measurement, this study will use Adjusted Net Saving

(ANS)—a comprehensive measure of a country's rate of saving after accounting for investments in human capital, depreciation of produced assets, and depletion and degradation of the environment (Hess, 2010). This study will employ the total natural resource rents as % of GDP. Research suggests that a focus upon economic success using the ANS measure has a positive and significant relationship with the aggregate welfare, although there is a weakness in magnitude. The weakness in magnitude in this case appeared because the aggregate welfare was only measured by the Infant Mortality Rate (IMR) and the Human Development Index (HDI) (Gnègnè, 2009).

2.3. Moderating Factors: Institutional Quality, Level of Investment, School Completion Level, and Industry Value Added

According to Sharma, Durand, and Gur-Arie (1981), the moderator variables are the third type of variable that affect the strength of the relationship between a dependent and independent variable.

Moderating factors that will be incorporated in this analysis are based on the work from Havranek et al. (2016) which found several factors as important influences upon the natural resource and economic growth relationship. They used a meta-analysis study and concluded that five influences emerged consistently—the investment level in the resource sector, the quality of institutions, including an interaction term between institutional quality and natural resource abundance, and the specific type of natural resource. The effects would also vary according to whether resource dependence and resource abundance was used as the dependent variable.

Institutional quality, as one moderator variable in this study, was found to be the key to whether natural resources can become a blessing or a curse (Barbier, 2003; Mehlum et al., 2006). As a measurement of institutional quality, this study employs the data of the Worldwide Governance Indicator from the World Bank, which present governance indicators collectively and separately for 215 countries and territories over the period 1996–2015. The data have been used in much previous research to measure institutional quality. These six dimensions are the voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption (Kaufmann, Kraay, & Mastruzzi, 2011).

For the measurement of level of investment, this study employs World Bank net foreign direct investment (BoP, current US$), which counts the total of capital equity, earnings reinvestment, other long-term capital, and short-term capital as shown in the balance of payments. The decision to employ foreign direct investment (FDI) rather than domestic investment was made because, compared to domestic investments, several studies have found that FDI has a stronger positive influence on the income growth in host countries, by having a greater impact on improving total factor productivity and increasing the efficiency of resource utilization in the beneficiary economy (OECD, 2002).

For the measurement of education level, this study use proxy of primary completion rate. This data has increasingly used as an indicator to measure education system's performance. This rate measures both the coverage of the education system and the educational attainment of students. Thus, the primary completion rate stated as an accurate indicator of human capital formation and the quality and efficiency of the school system (Langsten, 2017).

The industry value added measurement that this study going to employ is create by the World Bank. The data comprises value added in mining, manufacturing, construction, electricity, water, and gas industries.

III. Methodology

3.1. Data

Constructing a time series analysis with a consistent set of determinants is a big challenge due to the unavailability of data in the particular periods for each of the variables in Indonesia. Part of the data relating to institutional quality is only provided in even-numbered years in their early publication from 1996 to 2002 period. Due to this situation, this study will add the data in the missing years using the interpolation techniques. After the interpolation and filtering of the data, this study can employ 26 years of time series data from 1990 to 2015 to justify the relationship of natural resources and the economic welfare of Indonesia.

The quantitative analysis for this study will rely on secondary data provided by international agency bodies that are the World Bank, and the national agencies of the Government of Indonesia such as the Central Bureau of Statistics and the National Development Planning Agency as the supporting sources.

The details of the data sources and its measurement are summarized in Table 1. The table also contains the expected results of each moderating variable in the model.

Table 1. *Data Definitions and the Expected Results*

Variable	Definition	Source	Measurement	Expected Results
Adjusted Net Savings (per capita)	National net saving adjusted for the value of resource depletion and environmental degradation and credited for education expenditures, per total population.	World Bank	USD/people	positive
Natural Resource Abundance (per capita)	The sum of natural resource rents (oil rents, natural gas rents, coal rents, mineral rents, and forest rents), per total population.	World Bank	USD/people	positive
Foreign Direct Investment (per capita)	Foreign direct investment (the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments), per total population	World Bank	USD/people	positive
Institutions: Voice and accountability	capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media	World Bank	Index	positive

Institutions: Political stability	capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism	World Bank	Index	positive
Institutions: Government effectiveness	capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies	World Bank	Index	positive
Institutions: Regulatory quality	capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development	World Bank	Index	positive
Institutions: Rule of law	capturing perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence	World Bank	Index	positive
Institutions: Control of Corruption	capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests	World Bank	Index	positive
Primary completion rate, total	Primary completion rate, or gross intake ratio to the last grade of primary education, is the number of new entrants (enrolments minus repeaters) in the last grade of primary education, regardless of age, divided by the population at the entrance age for the last grade of primary education.	World Bank	% of relevant age group	positive

Industry, value added (per capita)	Comprises value added in mining, manufacturing, construction, electricity, water, and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.	World Bank	USD/people	positive

Source: World Bank (modified)

3.2 Empirical Models

The aim of this quantitative analysis is to examine the effect of four moderating variables of institutional quality, level of investment, education level, and industry value added during the period from 1990 to 2015. The analysis will be performed by running STATA package software, using a time series regression method.

A set of multiple regression models was explored in order to identify the optimum functional form to fit the data and meet the objective of the study, and resulted in a set of models. The models are made based on a consideration to interpret the relationship between each of the moderating variables upon dependent variable separately.

To test whether the moderating factors of institutional quality, investment level, education level, and industry value added have a significant supporting or inhibiting effect, a Moderated Regression Analysis (MRA) will be employed. MRA is a regression-based technique that is used to identify the moderator variable, by using an interaction term between the moderating variable and independent variable. If the regression results are found to be significant, then there is an amplifying or weakening effect between the independent variable and dependent variable.

The pre-test stage of the experimental design was performed by plotting all the data into a line chart to discover the trend, and into a histogram chart to see the distributions of the data. The test showed that normality distribution occurs on the data.

Equation 1 describes the basic relationship between economic welfare (represent by Adjusted Net Savings per capita "ADJNETSAVING) and the rent generated from natural resources per capita "ABUNDNR"

$$ADJNETSAVING_t = \alpha n + \beta n\ ABUNDNR_t + \mu t \quad (1)$$

Equation 2 describes the relationship between economic welfare as the dependent variable and the rent generated from natural resources. The equation also examines the institutional quality "INSTIT" as a moderating variable. An interaction term has been placed between the moderating variable "INSTIT" and "ABUNDNR" in the models to test the effect of the moderating variables on the main relationships.

$$ADJNETSAVING_t = \alpha n + \beta n\ ABUNDNR_t + \beta n\ INSTIT_t + \beta n\ ABUNDNR_t{}^*\ INSTIT_t + \mu \quad (2)$$

Since the institutional quality variable consists of six dimensions that are all equally important in establishing the institutional quality, this study will run each of the dimensions separately. Thus, the models that consist of INSTIT will be run six times, each with different dimensions of institutional quality.

Equation 3 explores the relationship between economic welfare and the rent generated from natural resources, while also examining the effect of the level of foreign direct investment "INVEST". An interaction term again has been put between

the "INVEST" and "ABUNDNR" to know whether 'INVEST" can give supporting or negating effect on the resource-welfare relationship.

ADJNETSAVINGt = αn + βn ABUNDNRt + βn INVESTt + βn ABUNDNRt* INVESTt + μt (3)

Equation 4 investigates the relationship between economic welfare and the rent generated from natural resources, while also studying the effect of education level (using proxy of primary completion rate) "COMPLETE". An interaction term has been put between the "COMPLETE" and "ABUNDNR" to test the effect of education level on the main relationship.

ADJNETSAVINGt = αn + βn ABUNDNRt + βn COMPLETEt + βn ABUNDNRt* COMPLETEt + μt (4)

Equation 5 explores the relationship between economic welfare and the rent generated from natural resources, with a focus on investigating the effect of value added in industry "VAINDUSTRY". An interaction term has been put between the "VAINDUSTRY" and "ABUNDNR" to test the effect of industry value added on the main relationship.

ADJNETSAVINGt = αn + βn ABUNDNRt + βn VAINDUSTRYt + βn ABUNDNRt* VAINDUSTRYt + μt (5)

Equation 6 describes the whole variables relationship. In this equation, there is no interaction term, and all the variables "ABUNDNR", "INSTIT", "INVEST", "COMPLETE", and "VAINDUSTRY" have been used as independent variables to test the relationship with economic welfare "ADJNETSAVING" directly.

ADJNETSAVINGt = αn + βn ABUNDNRt + βn INSTITt + βn INVESTt + βn COMPLETEt + βn VAINDUSTRYt + μ (6)

The results from these equations are shown in Table 2 and Table 3. Each of the equation is shown as a column. For equation with "INSTIT", each of the dimensions is presented as A (political stability "politicstab"), B (accountability "accountblty"), C (government effectiveness "govteffectiv"), D (regulatory quality "regulatory"), E (rule of law "ruleoflaw"), and F (control of corruption "ctrlcorrupt").

Table 2. *Regression Results (Equation 1, 2, and 3)*

	1	2A	2B	2C	2D	2E	2F	3
abundnr	2.892434	3.553604	2.092468	3.702928	6.403543	12.26579	-.6544109	.6143828
	(0.000)*	(0.002)*	(0.003)*	(0.049)*	(0.001)*	(0.000)*	(0.851)	(0.359)
politicstab		177.2446						
		(0.122)						
c.abundnr#c.politicstab		2.508274						
		(0.016)*						
accountblty			-287.1028					
			(0.219)					
c.abundnr#c.accountblty			10.95781					
			(0.007)*					

	1	2A	2B	2C	2D	2E	2F	3
govteffectiv				356.0947				
				(0.568)				
c.abundnr#c.govteffectiv				7.619764				
				(0.210)				
regulatory					-650.863			
					(0.118)			
c.abundnr#c.regulatory					11.76349			
					(0.036)*			
ruleoflaw						-575.2321		
						(0.157)		
c.abundnr#c.ruleoflaw						15.45585		
						(0.002)*		
ctrlcorrupt							857.5994	
							(0.059)**	
c.abundnr#c.ctrlcorrupt							-4.239178	
							(0.404)	
Invest								-6.224382
								(0.026)*
c.abundnr#c.invest								-.0237137
								(0.209)

*Notes: Standard error in parentheses. * shows statistically significant in 5% level, ** shows statistically significant in 10% level.*

Table 3. *Regression Results (Equation 4, 5, and 6)*

	4	5	6A	6B	6C	6D	6E	6F
abundnr	-20.24173	-2.560497	-1.292867	-1.199889	-1.217307	-1.186561	-1.225823	-1.240619
	(0.098)**	(0.000)*	(0.002)*	(0.001)*	(0.002)*	(0.003)*	(0.004)*	(0.001)*
politicstab			-71.64557					
			(0.245)					
c.abundnr#c.politicstab								
accountblty				-128.0939				
				(0.034)*				
c.abundnr#c.accountblty								
govteffectiv					-188.7706			
					(0.236)			

	4	5	6A	6B	6C	6D	6E	6F
c.abundnr#c.ctrlcorrupt								
Invest			-2.458501	-.1139652	-1.100437	-1.885895	-2.001494	-2.238822
			(0.038)*	(0.919)	(0.307)	(0.094)**	(0.088)**	(0.021)*
c.abundnr#c.invest								
complete	27.70214		-8.474478	-5.083623	-5.658289	-7.322243	-7.454634	-8.509933
	(0.094)**		(0.258)	(0.451)	(0.439)	(0.347)	(0.333)	(0.219)
c.abundnr#c.complete	.2229883							
	(0.078)**							
vaindustry		.6254943	.7971793	.8775688	(.8014034)	.7306665	.7384208	.7732809
		(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*
c.abundnr#c.vaindustry.		.0012411						
		(0.001)*						

*Notes: Standard error in parentheses. * shows statistically significant in 5% level, ** shows statistically significant in 10% level.*

IV. Results And Discussion

From the results in Tables 1, 2, 3, and 4, the coefficients of ABUNDNR cannot be said were consistently positive, or consistently negative. For example, we can see the results of equations 1 to 3 where the coefficients are all significant and positive, except on equation 2E which has positive coefficient but not significant. However, on equations 4 to 6F, the coefficients are all negative and significant. This shows that the results not robust and cannot be used to conclude that the rent generated from natural resources in Indonesia has been contributed on the economic welfare.

In terms of the moderating variables between natural resource rents and economic welfare, this study found that there are six significant moderating variables. The six variables that can significantly give supporting effect on the natural resources-economic welfare relationship are the (1) POLITICSTAB (political stability), (2) ACCOUNTBLTY (accountability), (3) REGULATORY (regulatory), and (4) RULEOFLAW (rule of law), which all are the dimensions of institutional quality. The other significant moderating variables are the (5) COMPLETE (primary completion level), and (6) VAINDUSTRY (industry value added). The signs on the results are positives which mean the implementation of these variables will enhance the relationship between natural resources and economic welfare. In terms of the coefficient signs for each of the moderating variables, the STATA results show that all the coefficient signs match with the expected signs in Table 1.

For the institutional quality variable, from the six dimensions of institutions measured in this study, only four dimensions that significantly can support the natural resources-economic welfare relationship ("relationship"): (1) The more stable the government from unconstitutional, politically motivated violence and terrorism, the tighter is the relationship; (2) The more freedom for: participating in government selection, expression, association, and a free media, the more it supports the

relationship; (3) The higher the ability to formulate and implement sound policies and regulations that permit and promote private sector development, the closer is the relationship; (4) The better the quality of contract enforcement, property rights, the police, and the courts, the firmer is the relationship.

In terms of the two-remaining significant moderating variables, the positive coefficient signs of the variable means: (5) the higher the rate of completion in primary school, the more it supports the relationship; (6) the greater the value added in mining, manufacturing, construction, electricity, water, and gas sectors, the tighter is the relationship.

V. Conclusion

Eventhough the role of natural resource rents on economic welfare in Indonesia is hard to conclude due to the inconsistency of the coefficient signs on each of the equations results, this study manage to find six moderating variable that can give a supporting effect on the natural resource-economic welfare relationship. From the four factors put into the models, the investment is the only moderating variable that does not have significant results on the relationship. This study found that institution and education are two area that need to have more focus if the government wants to make sure the rent generated from the natural resource sector contributes to the economic welfare. The government's policy in regard to adding value for industry's products also will give positive impact on the contribution of natural resource rents to economic welfare.

In regard of these conclusion, this study aware of the quality of data employed. With the limited amount of time series data available, it is hard to give a strong recommendation for the Government of Indonesia. A set of panel data with each provinces in Indonesia as the observations has been considered, however this cannot be executed due to the availabilty of the data in the provincial level on the variables desired. For the next research, a longer set of data with other new moderating variables, might give a better understanding to study how natural resourc rents contribute to economic welfare in Indonesia.

References

ADB. (2015). *Indonesia: Interim Country Partnership Strategy (2015)*. Retrieved from http://www.adb.org/documents/indonesia-interim-country partnership-strategy-2015

AgMRC. (2017). *What is Value-added Agriculture*? Retrieved from https://www agmrc.org/business-development/getting-prepared/valueadded agriculture/what-is-value-added-agriculture/

Aji, P. (2015). *Summary of Indonesia's Poverty Analysis*.

Alisjahbana, A. S., & Yusuf, A. A. (2004). *Assessing Indonesia's Sustainable Development:Long-Run Trend, Impact of the Crisis, and Adjustment during the Recovery Period*. ASEAN Economic Bulletin, 21(3), 290-307.

Ambrey, C. L., Fleming, C. M., & Manning, M. (2016). *The role of natural capital in supporting national income and social welfare*. Applied Economics Letters, 23(10), 723-727. doi:10.1080/13504851.2015.1102839

Arezki, R., & van der Ploeg, F. (2010). *Trade policies, institutions and the natural resourcecurse*. Applied Economics Letters, 17(15), 1443-1451. doi:10.1080/13504850903035881

Atkinson, G., & Hamilton, K. (2003). *Savings, Growth and the Resource Curse Hypothesis*. WORLD DEVELOPMENT, 31(11), 1793-1807. doi:http://dx.doi org/10.1016/j.worlddev.2003.05.001

Auty, R. M. (2007). *Natural resources, capital accumulation and the resource curse*. Ecological Economics, 61(4), 627-634. doi:http://dx.doi.org/10.1016/j ecolecon.2006.09.006

Barbier, E. B. (2003). *The Role of Natural Resources in Economic Development*. Australian Economic Papers, 42(2), 253-272. doi:10.1111/1467-8454.00198

Behbudi, D., Mamipour, S., & Karami, A. (2010). *NATURAL RESOURCE ABUNDANCE, HUMAN CAPITAL AND ECONOMIC GROWTH IN THE PETROLEUM EXPORTING COUNTRIES*. Journal of Economic Development, 35(3), 81.

Brunnschweiler, C. N. (2008). *Cursing the Blessings? Natural Resource Abundance, Institutions, and Economic Growth*. WORLD DEVELOPMENT, 36(3), 399-419. doi:http://dx.doi.org/10.1016/j.worlddev.2007.03.004

Bulte, E. H., Damania, R., & Deacon, R. (2003). *Resource Abundance, Poverty and Development*.

Collier, P., & Goderis, B. (2012). *Commodity prices and growth: An empirical investigation*. European Economic Review, 56(6), 1241-1260. doi:http://dx.doi org/10.1016/j.euroecorev.2012.04.002

Dietz, S., Neumayer, E., & De Soysa, I. (2007). *Corruption, the resource curse and genuine saving*. Environment and Development Economics, 12(1), 33-53. doi:10.1017/S1355770X06003378

Gaitan, B., & Roe, T. L. (2012). *International trade, exhaustible-resource abundance and economic growth*. Review of Economic Dynamics, 15(1), 72-93. doi:http:/ dx.doi.org/10.1016/j.red.2011.08.002

Gnègnè, Y. (2009). *Adjusted net saving and welfare change*. Ecological Economics, 68(4), 1127-1139. doi:http://dx.doi.org/10.1016/j.ecolecon.2008.08.002

Golban, A. (2014). *THE INCREASING OF COMPETITIVENESS OF HIGH VALUE ADDED HORTICULTURAL PRODUCTION IN THE CONTEXT OF THE ECONOMIC GROWTH OF THE REPUBLIC OF MOLDOVA*. Scientific Papers Series: Management, 14(2), 133-140.

Gylfason, T. (2001). *Natural resources, education, and economic development*. European Economic Review, 45(4–6), 847-859. doi:http://dx.doi.org/10.1016 S0014-2921(01)00127-1

Hanif, H., & Bria, E. (2016). *Can We Reverse the Resource Curse at the Local Level in Indonesia*? Retrieved from http://www.resourcegovernance.org/blog

can-we-reverse-resource-curse-local-level-indonesia
Havranek, T., Horvath, R., & Zeynalov, A. (2016). *Natural Resources and Economic Growth: A Meta-Analysis*. WORLD DEVELOPMENT, 88, 134-151. doi:http://dx.doi.org/10.1016/j.worlddev.2016.07.016
Hess, P. (2010). *Determinants of the adjusted net saving rate in developing economies*. International Review of Applied Economics, 24(5), 591-608. doi:10.1080/02692170903426070
Jacobs, G., & Slaus, I. (2010). I*ndicators of Economics Progress: The Power of Measurement and Human Welfare*. Cadmus, 1(1), 53-113.
Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). *The worldwide governance indicators: methodology and analytical issues*. Hague Journal on the Rule of Law, 3(2), 220-246.
Langsten, R. (2017). *School fee abolition and changes in education indicators*. International Journal of Educational Development, 53(Supplement C), 163 175. doi:https://doi.org/10.1016/j.ijedudev.2016.12.004
Mehlum, H., Moene, K., & Torvik, R. (2006). *Cursed by Resources or Institutions?* World Economy, 29(8), 1117-1131. doi:10.1111/j.1467-9701.2006.00808.x
Mikesell, R. F. (1997). *Explaining the resource curse, with special reference to mineral exporting countries*. Resources Policy, 23(4), 191-199. doi:http://dx.doi org/10.1016/S0301-4207(97)00036-6
Mollin, J. (2014). *REDD+ can "green" Indonesia's resource-dependent economy*, U.N. expert says. Retrieved from Thomson Reuters Foundation News website: http://news.trust.org//item/20140703054800-mtxl7/
Norrbin, S. C., Pipatchaipoom, O., & Bors, L. (2008). *How robust is the natural resource curse?* International Economic Journal, 22(2), 187-200. doi:10.1080/10168730802079722
NRGI. (2015). *Subnational Revenue Distribution: Natural resource revenues in a decentralized context*. March 2015.
OECD. (2002). *Foreign Direct Investment for Development*. Retrieved from Paris:
Rosser, A. (2004). *Why did Indonesia overcome the resource curse?*
Rosser, A. (2007). *Escaping the resource curse: The case of Indonesia*. Journal of Contemporary Asia, 37(1), 38-58.
Sachs, J. D., & Warner, A. M. (1995). *Natural resource abundance and economic growth*. National Bureau of Economic Research Working Paper 5398. Cambridge, MA.
Shao, S., & Yang, L. L. (2014). *Natural resource dependence, human capital accumulation, and economic growth: A combined explanation for the resource curse and the resource blessing*. Energy Policy, 74(C), 632-642. doi:10.1016/j.enpol.2014.07.007
Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). *Identification and Analysis of Moderator Variables*. Journal of Marketing Research, 18(3), 291 300. doi:10.2307/3150970
Statistics Indonesia. (2017). *Number Of Poor People, Percentage of Poor People and The Poverty Line*, 1970-2017. from Statistics Indonesia https://www.bps go.id/linkTabelStatis/view/id/1494
Toman, M. A. (2003). *The roles of the environment and natural resources in economic growth analysis: Resources for the Future*.
World Bank (Producer). (2016). *Indonesia's Rising Divide*. World Bank, Jakarta. Retrieved from https://openknowledge.worldbank.org/handle/10986/24765
Xavier, S.-i.-M., Doppelhofer, G., & Miller, R. I. (2004). *Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach*. The American Economic Review, 94(4), 813-835.

Socio-Political And Economic Determinants Of Income Inequality In Indonesia

Ichsan Zulkarnaen[1]
Ministry of National Development Planning/BAPPENAS

Abstract

Income inequality in Indonesia has rapidly enlarged in recent years. This paper aims to examine the causes of highly persistent income inequality in Indonesia. In contrast to other previous studies that investigated income inequality focusing only on economic factors, this paper also looks at social and political elements. Using Ordinary Least Square (OLS) method, I found that democracy has no significant impact on income inequality. In addition, the study found a significant relationship between government spending and income inequality. In addition, I also found evidence that foreign direct investment (FDI) flows have an impact to improve income inequality in Indonesia. There are several relevant policy conclusions that can be drawn from this study.

Keywords: Income inequality, Indonesia, OLS, FDI, Democracy. Government Spending

[1] The author is a Senior Planner at Directorate for Macro Planning and Statistical Analysis, Ministry of National Development Planning/Bappenas. Email address: ichsanz@bappenas.go.id

Socio-Political And Economic Determinants Of Income Inequality In Indonesia

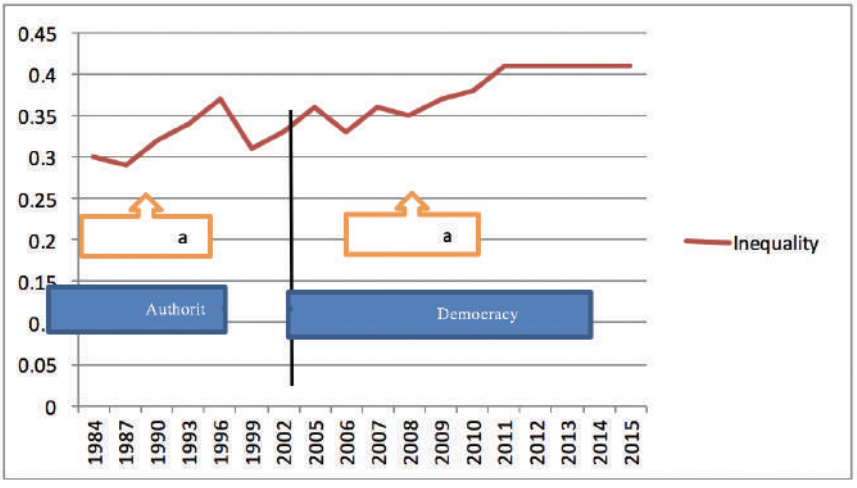
Ichsan Zulkarnaen, BAPPENAS

I. Background

After the collapse of the New Order era in 1998, Indonesia entered the Reform era which was marked by the implementation of the most democratic general elections in Indonesia. The process of democratization in Indonesia continued until 2004 when, for the first time, the people of Indonesia could directly choose their President and Vice President as well as the members of parliament.

Unfortunately, the improvement in the democratization process is not followed by improvement in income inequality. The issue of income inequality has attracted the attention of policy makers, especially in Indonesia (Anshori et al, 2013). Based on the data from the Central Agency of Statistics, the average National Gini Index during the democratic era (2004 – to date) reaches 0.39. Even worse, since 2012 until 2015, the Gini Index reached 0.41 or the highest level so far. Meanwhile, during the New Order era under Soeharto, the average level of the Gini Index in Indonesia reached 0.32.

Figure 1. *Income inequality in Indonesia*



Source: World Development Indicator, The World Bank

Many scholars argue that democracy can enhance community participation, which in turn allows a greater number of people to demand more equitable redistribution of income (Boix, 1998) while governments under the authoritarian regime tend to implement policies that benefit middle and upper income society and it will increase income inequality (Reuveny and Li, 2003).

Based on the description above, the relevant question is why democracy in Indonesia has not been able to reduce the level of income inequality despite the level of democracy in Indonesia is improving[2].

[2] According to the data from Freedom House, the index of political rights in Indonesia has decreased means it moves toward more democracy.

In this paper I will analyze the impact of economic and socio-political factors on income inequality in Indonesia. In this paper, I will use 33 provincial economic and socio-political data including: Gini index for each province, the ratio of regional government spending on education, health, and salary; the level of regional GDP per capita, mean years of schooling, and foreign direct investment. I also include provincial democracy index as my primary interest and utilize a cross sectional analysis to estimate the impact of those social, economic and political data on income inequality in Indonesia.

This paper is organized as follows. In the next section I will present the regional data then, I will describe some theoretical perspectives followed by literature review. Finally, I present my methodology, the results of the analysis and the conclusion.

1.1 Income Inequality in Indonesia : Trends

In this part, I will describe the trend of income inequality in Indonesia from the authoritarian regime until the democratic government.

There was a moderate Gini index before 1998/1999 when the democracy was introduced. The average Gini coefficient from 1990-1999 stood at 0.32 per year. However, after democracy was introduced, the average had risen to 0.39 per year. For more than a decade, the Gini index had fluctuated between 0.33 to 0.41.

What about trends in inter-provincial inequality? Table 1 below presents the provincial Gini Index in Indonesia. Again, there was a relatively low average of Gini Index in Indonesia before 2004.

Table 1. *Provincial Income Inequality (1996 – 2015)*

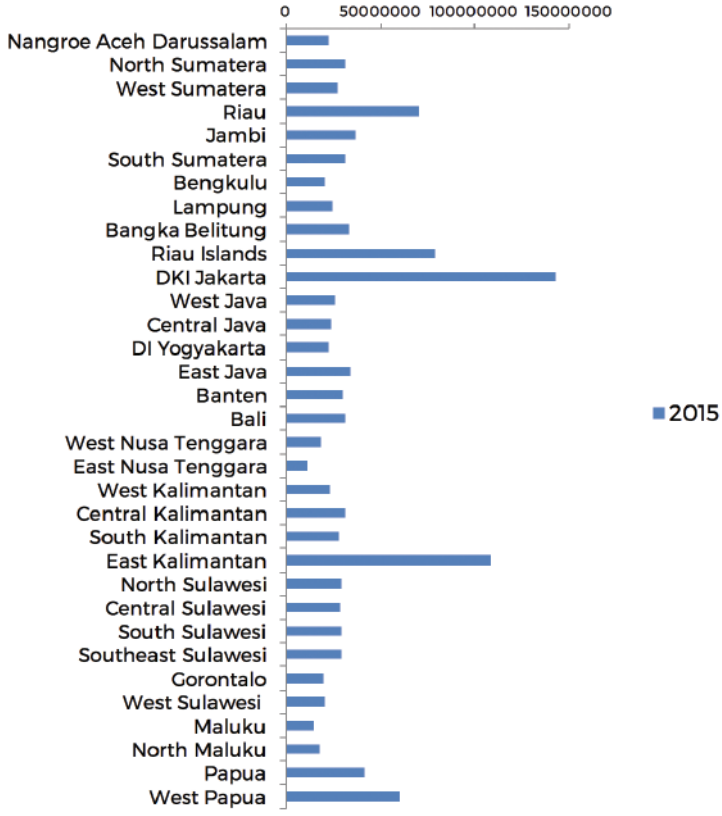
Island/Province	1996	2005	2009	2012	2015	2015 vs 2005
Sumatera Island						
Nanggroe Aceh Darussalam (NAD)	0.26	0.30	0.29	0.32	0.33	+ 0.03
North Sumatera	0.30	0.33	0.32	0.33	0.34	+0.01
West Sumatera	0.28	0.30	0.30	0.36	0.34	+0.04
Riau	0.30	0.28	0.33	0.40	0.36	+0.08
Jambi	0.25	0.31	0.27	0.34	0.36	+0.05
South Sumatera	0.30	0.31	0.31	0.40	0.36	+0.05
Bengkulu	0.27	0.35	0.30	0.35	0.38	+0.03
Lampung	0.28	0.38	0.35	0.36	0.38	+0.00
Bangka Belitung	-	0.28	0.29	0.29	0.28	+0.00
Riau Island	-	0.27	0.29	0.35	0.36	+0.09
Java-Bali Island						
DKI Jakarta	0.36	0.27	0.36	0.42	0.43	+0.06
West Java	0.36	0.34	0.36	0.41	0.41	+0.07
Central Java	0.29	0.31	0.32	0.38	0.38	+0.07
Di Yogyakarta	0.35	0.42	0.38	0.42	0.43	+0.01
East Java	0.31	0.36	0.33	0.36	0.42	+0.06
Banten	-	0.36	0.37	0.39	0.40	+0.04
Bali	0.31	0.33	0.31	0.42	0.38	+0.05
West Nusa Tenggara	0.29	0.32	0.35	0.35	0.37	+0.05
East Nusa Tenggara	0.30	0.35	0.36	0.36	0.34	-0.01
Kalimantan Island						
West Kalimantan	0.30	0.31	0.32	0.38	0.33	+0.02
Central Kalimantan	0.27	0.28	0.29	0.38	0.33	+0.05
South Kalimantan	0.29	0.32	0.35	0.38	0.35	+0.03

East Kalimantan	0.32	0.32	0.38	0.36	0.32	+0.00
Sulawesi Island						
North Sulawesi	0.34	0.32	0.31	0.43	0.37	+0.05
Central Sulawesi	0.30	0.30	0.34	0.40	0.37	+0.07
South Sulawesi	0.32	0.35	0.39	0.41	0.42	+0.07
Southeast Sulawesi	0.31	0.36	0.36	0.40	0.40	+0.04
Gorontalo	-	0.36	0.35	0.44	0.42	+0.06
West Sulawesi	-	-	0.30	0.31	0.36	+0.06
Maluku-Papua Island						
Maluku	0.27	0.26	0.31	0.38	0.34	+0.08
North Maluku	-	0.26	0.33	0.34	0.28	+0.02
West Papua	-	-	0.35	0.43	0.44	+0.09
Papua	0.39	0.39	0.40	0.44	0.42	+0.03
Indonesia	**0.36**	**0.36**	**0.37**	**0.41**	**0.41**	**+0.05**

Source: Statistics of Indonesia, various editions

Figure 2 provides different picture. It shows variations in regional GDP per capita across provinces in Indonesia in 2010. Clearly, per capita regional GDP in DKI Jakarta and East Kalimantan are far above the average.

Figure 2. *RGDP per Capita (in real term2010) (in Thousand)*



Source: Statistics of Indonesia, 2015
the average regional GDP per capita (in Rp thousand) is Rp. 36,333.

Interestingly, DKI Jakarta is among provinces with the highest level of democracy and the highest GDP per capita. Unfortunately, DKI Jakarta also has higher Gini Indexes compared to the average Gini Index in 2015.

Table 2. *Democracy Index (2015)*

	Province	Democracy Index
The Highest	DKI Jakarta	85.32
	DI Yogyakarta	83.19
	East Kalimantan	81.24
	Bali	79.83
	South Sumatera	79.81
The Lowest	Maluku	65.90
	Riau	65.83
	West Nusa Tenggara	65.08
	North Maluku	61.52
	West Papua	59.97
	Papua	57.55

Source: Indonesia Democracy Index, 2016

1.2. Determinants of Regional Income Inequality

1.2.1 Socio-Political Factors

1.2.1.1 Democracy

The relationship between democracy and income inequality can be analyzed from many persuasive approaches. Sirowy and Inkeles (1990) examine the theoretical relationship between democracy and income equality based on three models: the Democratic Model, The Authoritarian Model and the Skeptical Model (Feng, 2003).

The first model argues that democracy will lead to a reduction in income inequality while the authoritarian regime will increase the inequality (Feng, 2003). In essence, the democratic process will shift the political power from the high-income households to lower income groups, which in turn will result in more equitable income distribution. In contrast, an authoritarian regime will run policies that benefit the rich minority who has the financial power at the cost of the poor majority (Feng, 2003). This model is along with the median voter theory which argues that the political leaders in democratic regimes have an incentive to redistribute wealth in order to appeal to voters (Ha, 2012). With equal distribution of political power in society, it will in turn create political competition, which in turn helps reduce income inequality (Ha, 2012). If there is no competition between political groups (as in authoritarian regimes), the government is more vulnerable to pressure from individuals to benefit the rich at the expense of the poor. In contrast, when there is

competition between political groups (such as in democratic regimes), the political elites are more likely to respond to the interests of the poor or the middle class (Ha, 2012).

Sirowy and Inkeles also argued that democracy is perceived as a system that tends to avoid economic growth policies that have a negative impact on a particular social group or ignore the interests of the community (Feng, 2003). "Because of electoral mechanisms and rights to opposition and participation, democracies are relatively open to battles over the distribution of societal resources"(Feng, 2003, p.215). In conclusion, based on this approach democracy will reduce the income gap in the society.

Along with this theory, some scholars also argue that the democratic governments tend to help middle-and low-income communities by running a range of policies that emphasize on improving the income redistribution such as cash transfers, progressive tax system, minimum wage policy and price subsidies (Nikoloski). In contrast, authoritarian governments are more accountable to the communities that are relatively wealthier and more powerful. They tend to adopt a more favorable public policy for this group and in turn increase income inequality (Reuveny and Li, 2003).

The second model argues that authoritarian governments are better able to reduce the level of income inequality (Feng, 2003). The assumption of this model is that the income gap is caused mainly by the political gap (in this case is "deficient political representation")(Feng, 2003, p.216). It is often the case in developing countries where democracy is not fully consolidated. This will result the interests and demands from the low and middle-income groups cannot be "heard". Thus, the proponents of this second model states that authoritarian governments are better able to protect the interests and meet the demands of low and middle income groups (Feng, 2003). This is also in line with Hayek's opinion stated that "...a claim for equality of material position can be met only by a government with totalitarian powers" (Feng, 2003, p.216).

Finally, the third model argues that "the relationship between democracy and income equality is spurious" (Feng, 2003, p.216). Hewitt, in his article, stated that this argument falls into two variants (Hewitt, 1977). One argument is the so called-The Functionalists- which argues that: "the form of government, whether democratic or nondemocratic, socialist or non-socialist, does not affect the stratification system since the "needs" of modern industrial economies will require similar differentials in earnings between occupational groups, similar mobility rates and similar government policies, etc" (Hewitt, 1977, p.452). In other words, this argument assumes that there is no connection between income distribution and democracy and linking the income inequality only to the level of industrialization.

Like the Functionalists, though for different reasons, the Marxists assume that: "politics, as practiced in non-communist societies at least, has very little impact" (Hewitt, 1977, p.452). This model assumes that democratic government is not important. The proponents of this particular model focus only on class conflict between capitalists and labor, where the capital holders - the upper income households are relatively stronger than the latter and they are able to dominate or control the state policies (Hewitt, 1977). In turn, they are able to exercise their power to maintain their economic position.

In addition, based on the theory of resources "or" class struggle approach to politics, redistribution of income does not automatically occur after democracy (Ha, 2012). This theory argues that "the distribution of power between labor organizations and the organization of left parties on one side and the center and right-wing political forces on the other side" will determine the size and impact of democracy on a country's income equality (Ha, 2012, p.8).

Based on the analysis above, I hypothesize that democracy does not have an impact on income inequality.

1.2.1.1 Education

Education is generally seen as one of the most efficient ways to reduce income inequality (Toh, 1984 as cited in Abdullah, et.al, 2011). Through education, the poor can have a greater economic opportunity (Blanden and Machin, 2004, as cited in Abdullah, et.al, 2011). They were able to determine the choice of employment and salary levels as a signal of ability and productivity in the labor market. In addition, education is able to shift the composition of the labor force is not skilled toward the more skilled. Another reason to support the argument that the positive relationship between education and income gap is that educational achievement plays an important role as a signal of ability and productivity in the job market (Abdullah, et.al, 2011). The selection and assessment process inherent in the education system indicates that individual performance has been determined before workers: „... will be selected into the occupational structure in which their particular educational background will be most productively employed" (Tan, 1982:26 as cited in Abdullah, et.al, 2011). While this process may very well initially increase income inequality (Chiswick, 1968 as cited in Abdullah et.al, 2011), in the long term is expected to reduce income inequality (Schultz, 1963 as cited in Abdullah et.al, 2011).

1.2.2 Economic determinants

1.2.2.1 Regional GDP per capita

Much attention has been given to how the distribution of income changes during development. Simon Kuznets (1995) hypothesized the existence of an inverted U curve that initially when the development starts, income distribution will be uneven, but after reaching a certain level of development, the more equitable distribution of income. Kuznets finds the relation between income distribution and the level of per capita income inverted U-shaped. This result is interpreted as the evolution of income distribution in the process of transition from a rural economy to an urban economy. At the beginning of the process of development, inequality in income distribution rose as a result of the process of urbanization and industrialization, at the end of the development process, inequality decreases.

There are many reviews that try to explain why in the early stages of economic growth, income distribution tends to deteriorate and then starts to improve. One of the prominent models is the so- called the Dual Sector Model by Arthur Lewis. This theory states that in the early stages, economic growth will be concentrated in modern industry sectors characterized by relatively high productivity and wages but limited employment opportunities. This will initiate income gap between modern industries and traditional agriculture sectors rapidly before finally after pass the threshold the gap narrow again (Siswanto, 2011).

1.2.2.2 Regional Government Spending

The role of government which is reflected through government spending is an important factor in promoting economic growth. Government spending will affect economic growth through programs or activities which may increase productivity of existing resources, thus reducing the level of inequality of development that occurs within a region.

Education and health are two main programs that are generally perceived have important roles in reducing income inequality. Schultz states that one way to reduce income inequality, the necessary increase in human resources and increased government support for the sector education is one way to achieve this. Some theoretical models also predict that education can reduce income inequality (Schultz, 1963 as cited in Abdullah et.al, 2011). Furthermore, along with the

development of theories and hypotheses regarding the impact of education on the income inequality, a number of hypotheses linking health and income disparities also continue to expand. Several hypotheses include: First, poor health can make the prospective job seekers is difficult to get a job, or for those who already will be less likely to have jobs that employers will continue to hire them. This is referred to as the effect of the labor market (Labor Market Effect). Second, through the effect of education, poor health levels of the past can affect educational outcomes. In addition, levels of health can also affect a person's performance during the school through attendance at school level or inability to concentrate while at school (Leigh, et al, 2009).

1.2.2.3 Foreign Direct Investment

Investment including foreign direct investment (FDI) is an important factor in promoting economic growth. FDI can take the form of establishment of company's branches or holding companies. In developing countries, FDI inflows are generally preferred compared with inflows of capital in the form of a portfolio with the following reasons. First, FDI can provide advance science and technology for developing countries to assist the development of domestic companies to operate more efficiently. Second, FDI inflows are expected to create jobs and to reduce unemployment rate. Therefore, according to this explanation, FDI inflows are expected to be able to reduce income inequality in developing countries. However, contrary to this theoretical expectation, income inequality in developing countries actually increased after the increase in FDI (Ha, 2013).

FDI is considered to facilitate the deployment of technology from developed countries to the developing ones. Although the developed countries do not always transfer their best technologies to developing countries but this new technology still requires relatively higher skilled labors. It means that sectors actually which are actually grown and developed by FDI tend to be capital-intensive sectors, and capital-intensive industries also tend to be skilled-labor intensive (Feenstra and Hanson 1997 as cited in Ha, 2013).

Confirms the above argument, I assume that that multinational companies in developing countries pay higher wages to skilled workers from local companies.

II. Literature Review

In this section, I will provide some previous research on the impact of socio-economic and political factors on income inequality.

Nearly related to the Kuznets theory is the part that economic development plays important role in the distribution of income (Nikoloski). As indicated by the "growth" impact, economic development has a tendency to diminish income imbalances as the wage of the poor increases because of increments in salary (Mckay et al, 2003, as cited in Nikoloski). White and Anderson (2001) also find that the impact of economic development has been the fundamental factor for the poor in order to have a better wage. Barro (2000 as cited in Nikoloski) confirms that development diminishes imbalance. In a comparative design, Ravaillon (2001 as cited in Nikoloski) contends that the efforts of poverty reduction in the less developed countries have been more fruitful especially when those countries reached high development rates joined with falling income inequalities (Nikoloski)

Several studies of the impact of multinational companies in general or FDI to inequality among others Feenstra and Hanson (1997), Figini and Gorg (1999) and Taylor and Driffield (2005) (As cited in Figini and Gorg, 2006). By using industrial data for the state of Mexico, Ireland and the UK, the authors found that there is a relationship between the relative wage and FDI inward FDI which increases the wage inequality. Tsai (1995) studied the relationship between FDI and inequality

by using a sample of 33 developing countries and found that FDI has increased inequality in some Asian countries. Gopinath and Chen (2003) also found the same thing using a sample in which 11 developing countries, found that FDI flows have widened the wage gap between skilled and unskilled labor (Figini and Gorg, 2006).

The main proponents of the inverse U shape curve theory include Bourguignon and Verdier and Acemoglu and Robinson (Chong, 2001). In the simple version, Bourguignon and Verdier present a model in which public decisions were taken only by the educated group, while the group with no education was not allowed to vote. In the end, this educated group should subsidize people were not educated in order to have access to more knowledge and the result is a reduction in inequality. Acemoglu and Robinson found that the rise of industrialization, in the short term, would encourage the wealthy people to accumulate capital while the poor people could afford to do it. In their models, this would lead to an increase in income inequality. However, after reaching a critical inequality threshold, the intensity of revolution rose and the elites began to spread their political rights and economic resources to the poor. This in turn would result in an increase in redistribution and decrease inequality. (Chong, 2001)

Along with the above argument, Burkhart (1997) argued that the link between democracy and inequality did exist and it was nonlinear. He mentioned that at the earlier stages, democratization efforts would increase inequality. At initial stages, as countries started and became more democratic, the economic benefits tended to accrue the urban middle class first and causing gap. As democracy took hold, the urban working class and rural population catch up in acquiring income and increasing income equality (Burkhart, 1997). Essentially, he argued that democracy was good for income distribution only at later stages.

Having conducted a rigorous analysis, Bollen and Grandjean (1981) did not find any significant evidence to support the view that political democracy contributes to a more egalitarian distribution of income in a sample of 50 countries, once economic development was controlled.

Bollen and Jackman (1985) found that democracy did not affect inequality nor did the opposite. They constructed simultaneous equations model to test the relationship between income inequality and democracy. By using the hypothesis of an inverted U shape, they defined inequality as a curvilinear function of the level of economy. The main result of this study proved that there was no significant effect between democracy and inequality and between inequality and democracy (Ozer, 2008).

Several other studies also examined the effect of timing of a country's democracy and its impact on inequality. Hewitt (1977), examined the impact of democracy in 25 industrialized countries and found no significant relationship, after controlling for other variables (Ozer, 2008).

Muller (1988) tried to replicate the study from Hewitt by increasing the sample size to 50 countries and concluded that at least it took about 20 years for income inequality could be reduced after the introduction of democracy in the country. In other words, democratic institutions, if they were maintained for a relatively long time, could lead to a gradual reduction of income inequality (Ozer, 2008).

Chong (2001) in his simple cross country regression, for the period 1960-1995 argued that there was a non-linear relationship between democracy and inequality. Also, he found that the role of the state was very important to understand the trend of income inequality. Due to the increase in the public sector's size, this elite minority would allocate limited resources for the development of specific sectors/groups or for the protection of the interests of the industry/particular groups, which would affect in the widening of income gap between sectors or social groups. However, he found that after a certain threshold, the increase in the size of government, it would

likely lead to a reduction in income inequality.

Husni (2011) also found similar result in the case for Indonesia. In his research, he found that the budget allocation for the bureaucracy was one of the causes for income inequality in Indonesia. The budget allocation for the bureaucracy had increased steadily from year to year while allocation for health sector had decreased.

Plenty of empirical evidence, which recommended a solid relationship between education and income inequality, had developed since the original work of Mincer (1958). For instance, an investigation done in Brazil in 1977 uncovered that higher pay earners enjoyed more benefits from good education and training since their childhood (World Bank, 1977, as cited in Nikoloski). Related to government spending, Glomm and Ravikumar developed a model in which people can choose between public and private education systems. Despite the ambiguity found between the private education system and income inequality, but they clearly stated that income inequality would decrease under the public education system (Glomm and Ravikumar, 1992). Saint - Paul and Verdier (1992), Eckstein and Zilcha (1994), Zhang (1996) and Sylwester (2002) also developed a model that supports the hypothesis in which education could lower levels of income inequality over time (Abdullah, et.al, 2011).

However, some of the previous research results showing the opposite direction. For instance, Chiswick (1974) found that higher level of education led to an income inequality. Interestingly, Ahluwalia (1976) discovered a negative relationship between school enrollment and income inequality. Later studies by Sylwester (2003) and Georgio (2003) discovered a negative relationship between higher training and education enrollment and income disparity (Abdullah, et.al, 2011).

III. Model and Hypothesis

3.1 Model

Based on several studies and theoretical background explained above, I try to introduce my model which is going to be implemented in this study. I incorporate all the aforementioned factors in the following model using Ordinary Least Squares (OLS) regression.

Relations of the above-mentioned variables will be analyzed using software Stata12. Multivariate analysis using Ordinary Least Squares (OLS) will be run to understand the relationship between independent and dependent variables. Given the type of data in this study, we expect that there will be heteroskedasticity problem because this study deals with cross sectional data. When heteroskedasticity issue is present in the data set, the OLS is still unbiased but not efficient. To eliminate this problem, I use robust regression to estimate the coefficient variables.

3.2 Data

This article uses Provincial Gini in Indonesia as the dependent variable, while Provincial Democracy Index, Provincial GDP per capita, Provincial Government Spending (Health, Education and Wages), and Religion are the independent variables. All of the data are 2015 data and they are collected based on Statistics of Indonesia's publication.

This paper will use the Indonesia Democracy Index data. This data is based on three critical aspects which are civil liberty, political rights, and institutions of democracy. The Civil Liberties questions are grouped into several sub-categories such as Freedom of Expression, Freedom of Belief, and Associational and Organizational Rights. Political Rights questions are categorized in Electoral Rights and Political Participation. Lastly, Institution of Democracy is divided into Electoral Process, The Role of Parliament, and Independent Judiciary. All these aspects, which are

including 11 variables and 28 indicators, are used to form Indonesia Democracy Index (Indonesia Democracy Index, 2011).The highest number of index that can be awarded is 100 while the lowest is 0 and this index varies across provinces in Indonesia. This democracy index is divided into three performance categories: good (index > 80), medium (index 60 – 80), and bad (index < 60).

This paper will also try to apply various government spending types such as on education, health, and government spending for salary and wages. The reason is because there are many public expenditure programs that might have a pro-poor nature and thus help to reduce income inequality even without direct income transfers. These types of expenditures might explicitly be targeted to the poor per se can also contribute to improve the distribution of income in the short and longer term

FDI is another variable of interest, standing for log for foreign direct investment in province. The data for this variable are taken from BPS. Also , this paper uses religion as one of the variables because religion is often ignored. In fact, religion plays both negative and positive roles in relation to inclusive growth. On the one hand, religion-related hostilities, prejudices and biases can lock people out and inhibit inclusive growth. On the other, religious organizations have a tremendous capacity for doing good, with most religious groups being known for their programs to address poverty and/or care for the poor.

3.3 Hypothesis

Based on the theory and previous studies, I establish hypotheses as follows:

1) In terms of RGDP per capita

H0 = 0: There is no relationship between GDP per capita and Gini Index.

Halt < 0: There is a negative relationship between GDP per capita and Gini Index It means that if the GDP per capita increases, then we expect the Gini Index to decrease.

2) In terms of Ratio of Government Spending on Education to the Total Government Spending

H0 = 0: There is no relationship between Ratio of Government Spending on Education to the Total Government Spending

Halt: < 0: There is a negative relationship between Ratio of Government Spending on Education to the Total Government Spending. It means that if the ratio of Government Spending on Education to the Total Government Spending increases, we expect that Gini Index to decrease

3) In terms of Ratio of Government Spending on Health to the Total Government Spending

H0 = 0: There is no relationship between Ratio of Government Spending on Health to the Total Government Spending

Halt: < 0: There is a negative relationship between Ratio of Government Spending on Education to the Total Government Spending. It means that if the ratio of Government Spending on Health to the Total Government Spending increases, we expect that Gini Index to decrease

4) In terms of FDI

H0 = 0 : There is no relationship between FDI and Gini Index.

Halt: > 0: There is a positive relationship between FDI and Gini Index. It means that if FDI increases, we expect that Gini Index to increases

5) In terms of Democracy

H0 = 0 : There is no relationship between Democracy and Gini Index.

Halt > 0: There is a positive relationship between Democracy and Gini Index. It means that if the Democracy increases, then we expect the Gini Index to increase.

IV. Results and Conclusion

I start my analysis using 4 models. The first model is the basis that only includes democracy in the regression. Model 2 adds economic variables, while still keeping democracy as a control variable. Model 3 uses only social variables and democracy. I finally end my estimation with a comprehensive model 4, which also includes regional dummy variable (1=eastern part of Indonesia, 0=western part of Indonesia). Table 2 below will show the results of the multivariate statistical analysis in this study.

There are a few important results that emerge from this analysis. First, I find weak impact of democracy on income inequality in this model (as expressed by high p value at all models). In all of my models, democracy appears as insignificant. Even in the basic model, democracy is insignificant at one tail 10 percent level of significance. This result implies that even the simplest model between democracy and income inequality it does not yield a robust result that could be used to prove whether democracy has any impact on income inequality. I argue that, seemingly, redistribution of income does not automatically occur after democracy is introduced. Similar results are also found by Bollen and Grandjean (1981) and Bollen and Jackman (1985).

Second, I find strong evidence that government expenditure especially for education and health influence inequality. In the second and fourth model, it is shown that the estimated coefficients are consistent and significant at one tail under 5 percent errors. This result is consistent with other similar studies such as by Glomm and Ravikumar where they developed a model in which people can choose between public and private education systems and found that income inequality will decrease under the public education system (Glomm and Ravikumar, 1992). Saint - Paul and Verdier (1992), Eckstein and Zilcha (1994), Zhang (1996) and Sylwester (2002) also developed a model that supports the hypothesis in which education can lower levels of income inequality over time.

Table 3. *Regression Results on Gini Index*

Variable	Model _1	Model_2	Model_3	Model_4
Democracy	0.00105 (0.3252)	0.00133 (0.3505)	0.00003 (0.9807)	0.00207 (0.2897)
Regional GDP per Capita		-0.0000 (0.8355)	-	0.0000 (0.6717)
FDI		0.00001 (0.0584)**	-	0.00001 (0.0557)**
Health Spending/Total Spending		-0.00321 (0.1053)**	-	-0.00403 (0.1384)*
Education Spending/Total Spending		-0.00430 (0.0006)***	-	-0.00332 (0.0491)**
Wage+Allowance/Total Spending		0.00124 (0.2092)*	-	0.00048 (0.6890)
Mean Years of Schooling		-	-0.00301 (0.7185)	-0.01197 (0.2753)
Moslem		-	-0.00027 (0.5440)	-0.00013 (0.7924)

Christian		-	-0.00076 (0.3969)	-0.00071 (0.4886)
Hindu		-	-0.00004 (0.9212)	-0.00040 (0.4415)
Buddha		-	-0.00428 (0.3553)	-0.00437 (0.2159)
Region		-	0.03720 (0.0488)**	0.03009 (0.1678)*
Cons	0.42972 (0.0000)	0.29740 (0.0027)	0.40372 (0.0008)	0.37316 (0.0263)
N	33	33	33	33
R2	0.026	0.312	0.295	0.497
Adj R2	-0.005	0.154	0.099	0.195

Source: Stata 12

p value are in the parentheses

** p<0.1, ** p<0.05, *** p<0.01 one tail*

Along with these results, even though it is insignificant I find that government expenditure on salary and allowance for government officials has a positive. It means that an increase in the government expenditure for government officials will increase inequality. This result is along with the state-centered theory argued by Lee (2005). In his article, Lee argues that one of the main impacts of government size on overall income inequality is through "encouragement of uneven resource allocations and income differentials among employees between public and private sectors" (Lee, 2005, p.160)

Third, in my models, I find evidence with 5 percent level of significance that foreign direct investment increases inequality. As discussed in the literature review, I hypothesized that countries that are more open and more involved in the foreign investment tend to exhibit higher levels of inequality.

Finally, acknowledging that regional factors also play an important role in the economy and income distribution, I find insignificant results of this variable distribution of income. Even though the result is not significant, I find that provinces in the eastern part of Indonesia have higher Gini index compared to western part and this is consistent with the Kuznet's finding. Kuznets (1963) argues that in the early stages of development, income inequality will increase. In this case I argue that eastern part of Indonesia is in the early stage of economic development. My argument is supported by the data that the average economic growth for all provinces located in the eastern in 2015 reached 7.1 percent, higher than the average from all provinces in the western part, which reached 5.5 percent (National Development Planning Agency, database). Nonetheless, the share of economic growth is showing the opposite picture as expressed in figure 3 below.

Figure 3. *Share of Economic Growth (2015)*

Source: National Development Planning Agency, database

In this paper I try to analyze and examine the relationship between economic, social and political factors on income inequality in Indonesia. By using OLS method, the study did not find strong evidence that democracy has an influence on inequality. In addition, the study found a significant relationship between government spending and income inequality. In addition, I also found evidence that foreign direct investment flows generate income inequality in Indonesia. There are several relevant policy conclusions that can be drawn from this study.

First, economic factors have a more significant impact on the income gap compared to the social and political factors. Therefore, in order to overcome the problem of income inequality, the policy emphasis should be placed on measures that affect economic policies such as regulations on the inflow of foreign capital. Secondly, the government needs to increase spending on those sectors, which have the effect of reducing the gap such as education and health keeping in view the fiscal capability.

Further study of some of the determinants of inequality is obviously needed. There are a few could be better why the results may not be convincing. This could be due to the limitation of the model. This study only picks one year as a focus of study. In the future, time series models could be more beneficial in understanding the impacts of economic and socio-political factors on income inequality.

References

ADB. (2015). *Indonesia: Interim Country Partnership Strategy (2015)*. Retrieved from http://www.adb.org/documents/indonesia-interim-country partnership-strategy-2015

Abdullah, et.al. (2011). *Does Education Reduce Income Inequality? A Meta-Regression Analysis.* Journal of Economic Survey. 2013.

Anshori, et.al. (2013). *The Long-run Evolution of Inequality In Indonesia, 1990–2012: New Estimates and Four Hypotheses On Drivers*. Center for Economics and Development Studies, Department of Economics, Padjadjaran University. September 2013.

Boix, C. (1998). *Political parties, growth and equality: Conservative and social democratic economic strategies in the world economy.* Cambridge University Press. Cambridge, UK.

Bollen, K.A. and R. Jackman. (1985). P*olitical Democracy and the Size Distribution of Income.* American Sociological Review 50:438-57.

Bollen, K.A. and B. Grandjean. (1981). *The Dimension(s) of Democracy: Further Issues in the Measurement and Effects of Political Democracy.* American Sociological Review 46:232-39.

Burkhart, R. (1997). *Comparative Democracy and Income Distribution: Shape and Direction of the Causal Arrow.* The Journal of Politics. Cambridge University Press. Cambridge, UK.

Chong, A. (2001). *Inequality, Democracy, and Persistence: Is There a Political Kuznets Curve.* Inter-American Development Bank and Georgetown University.

Feng, Y. (2003). *Democracy, Governance, and Economic Performance*. Theory and Evidence. The MIT Press. Cambridge, Massachusetts.

Figini, P., Holder Gorg (2006). *Does Foreign Direct Investment Affect Wage Inequality? An Empirical Investigation*. Discussion Paper No 2336. September 2006. The online version of this article can be found at: http://ftp.iza.org/dp2336.pdf

Ha, E. (2012). *Globalization, Government Ideology, and Income Inequality in Developing Countries*. Journal of Politics. 74(2), April 2012

Hewitt, C. (1977). T*he Effect of Political Democracy and Social Democracy on Equality in Industrial Societies: A Cross-National Comparison.* American Sociological Review, Vol. 42, No. 3. American Sociological Association.

Huber, E.and J.D. Stephens. (2001). *Development and Crisis of the Welfare State: Parties and Policies in Global Market.* Chicago, IL: University of Chicago Press.

Husni (2011). *Sekelumit tentang politik anggaran di Indonesia.* (http://www.academia.edu/2547121/Sekelumit_Politik_Anggaran Indonesia)

Lee, C S. (2005). *Income Inequality, Democracy and Public Sector Size.* American Sociological Review, 2005, 70:158. Sage Publication. The online version of this article can be found at: http://asr.sagepub.com/content/70/1/158

Leigh, et.al (2009). *Health and Economic Inequality.* The Oxford Handbook of Economic Inequality (2009). The online version of this article can be found at: http://andrewleigh.org/pdf/HealthInequalityOUP.pdf

Milanovic, Branko. (2000). *The Median-Voter Hypothesis, Income Inequality and Income Redistribution.* European Journal of Political Economy Vol. 16 p. 367–410.

Nel, Phillip. (2005). *Democratization and the Dynamics of Income Distribution in Low and Middle-Income Countries*. Politikon Vol. 32 (1) p. 17–43.

Nikoloski, Z. *Economic and Political Determinants of Income Inequality.* University College London, London, United Kingdom.

Ozer, B. (2008). *The Impacts of Democracy on Income Inequality*. Seminar Papers in Development Economics School of Business and Economics – Institute of Public Economics. Humboldt-Universitat Zu Berlin.
Reuveny, R., Quan Li. (2003). *Economic Openness, Democracy and Income Inequality*. Comparative Political Studies.
Siswanto, P. (2011). *Analisa Dampak Perdagangan Bebas Terhadap Ketimpangan Wilayah*. Skripsi. Fakultas Ekonomi Universitas Diponegoro, Semarang. 2011

Social Finance and Social Enterprises: A New Frontier for Development in Indonesia

David Soukhasing[1], Valencia Dea[1], and Christie Ruslim[1]
Angel Investment Network Indonesia

Abstract

The number of social finances and social enterprises are steadily growing in Indonesia. However, there is yet to be a comprehensive research in this context. The objective of this study is to explore and identify the unique challenges of social investment in Indonesia. There are three key players in social investment ecosystem in Indonesia. Social enterprises, which aim to solve social or environmental problems, are mostly at their early stage and not investment ready. Meanwhile, many investors, with or without intention to invest for social mission, are not willing to fund early-stage enterprises. There are also challenges or false perceptions from traditional financial institutions in giving external funding to social enterprises. Enablers act as catalysts for the growth of social enterprises; however, their presence in Indonesia received an equivocal review, as many of them are lacking instruments as a social enterprise enabler. Blended finance is explored to be the solution to the unmet demand and supply of funding. There are two tools to implement blended finance model. With direct funding scheme, investors are given guarantees in exchange for the higher risks to investing in seed- and growth-stage social enterprises. Alternatively, support mechanisms acknowledge and address different issues in every lifecycle through various building capacity and programs.

Keywords: Social Enterprises, Impact Investment, Social Finance, Blended Finance, Sustainable Development Goals (SDGs), Indonesian Development

[1] David Soukhasing, Valencia Dea, Christie Ruslim are a member of ANGIN (Angel Investment Network Indonesia). Corresponding author: David Soukhasing (david@angin.id)

Social Finance and Social Enterprises: A New Frontier for Development in Indonesia

David Soukhasing, Valencia Dea, and Christie Ruslim, ANGIN

I. Introduction

Social finance encompassed the deployment of financial resources principally for social and environmental returns, and in some cases, an economic return (Hangl, 2014). Although the idea has been lingering for over a century (European Commission, 2016), the concrete concept of social finance as a development tool has been relatively newly understood in the international banking and finance sector (Benedikter, 2011; Lehner et al., 2014). Particularly in Indonesia, social finance gained a lot of support and attention after the economic turmoil in 2009 and after the push from government and foundations to provide more sustainable financing for social initiatives (Angin, 2016). The number of active organization in social financing, therefore, grew from only a handful to double-digit, coming from both Indonesia and overseas.

Nevertheless, the research on this area is scarce, particularly in high-impact countries such as Indonesia. The currently available study explores the topic of social finance from the perspective of general micro-market; how specific mechanism can best fund social enterprises (Cooch and Kramer, 2006; Griffith, 2006; Emerson, 2006). While these studies provide a fresh insight on the area, the mechanisms are not easily applied to an individual country without first knowing the outlook.

The pressing need to understand the landscape of social finance in Indonesia is also aggravated due to the growing number of social enterprises in Indonesia. There are more than 300 social enterprises from different background, maturity level, and operation in different sectors. The identified catalysts for the increasing number are the growing interest of younger generations, as well as returning Indonesians who have studied abroad (Angin, 2016). The rising demand side is also helped by the existence of some startup accelerators programs and active government programs.

This research addresses the current literature gap in Indonesian social finance and social enterprise. To date, there is yet have been any robust collection of data, no recorded figure on existing ecosystem players, no information on what's currently going on, and what are current main challenges. The study was initiated by the UNDP (United Nations Development Programme), through its works with Otoritas Jasa Keuangan (OJK), Badan Perencanaan Pembangunan Nasional (Bappenas), and Kementerian Koordinator Bidang Perekonomian (Kemenko), where they wanted to understand better the social finance landscape and potentially start to take actions to play an active role in the Indonesian social finance scene. It is challenging yet imperative to understand what is the best social finance tool to use to address the needs.

Against this background, the purpose of this research is to answer the overarching question: "What is the latest outlook of social finance activities in Indonesia?". More specifically, the research questions driving this study are as follows:

1. Who are the key players in the social finance landscape in Indonesia?
2. What is the current state of each of the Indonesia's social finance key players?
3. What are the challenges faced by each of the stakeholders in achieving their objectives?

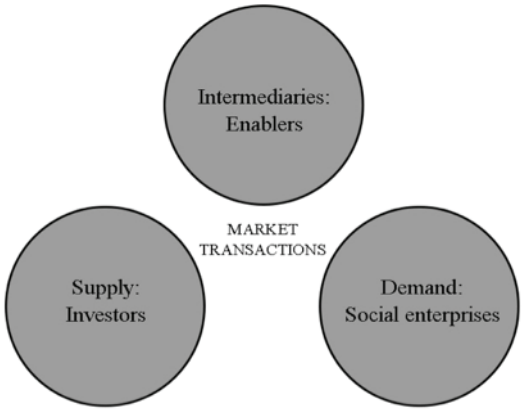
The rest of the paper is outlined as follows: the next chapter provides a context

for understanding the role of respective stakeholders in the social finance and social enterprise. Chapter 3 describes the methodology. Chapter 4 discusses the trends, further exposing current problems challenges. Lastly, drawing from previous two chapters, Chapter 5 will conclude the research with suggestions and best approach for both public and private sector to address the issues.

II. Literature Review

To holistically framing the landscape of social finance, one must set out the key players within the rudimentary market framework: the demand side, the supply side, and the intermediaries/enablers.

Figure 1. *The key stakeholders in social finance landscape*



2.1 Demand Side: Social enterprises

Social entrepreneurship is a practice that amalgamates economic and social value creation in its mission (Mair and Marti, 2006). While there is a varying definition of a social enterprise; it can be shortly defined as an 'entrepreneurial activity with an embedded social purpose' (Austin et al., 2006). They are financially sustainable businesses that are intentionally solving a social or environmental problem awhile having an entrepreneurial mindset to grow their business and impact.

2.2 Supply Side: Investors

Investors are defined as being either natural persons (individuals) or legal persons (companies/businesses) that injects capital or money into financial schemes with an expectation of economic return (Nikièma, 2012). An investor is considered as a socially responsible investor if he/she integrates the financial consideration with non-financial aspects, including personal values, societal demands, and environmental concerns. (Scholtens, 2006). Several types of investor fall into this category, including but not limited to non-profit organization, foundation, and impact investors. However, other investors who do not have a primary interest in making a social change can also invest in an enterprise with a social mission.

2.3 Intermediaries: Enablers

Social enterprises often require the assistance from intermediary organizations to grow and become investment ready (Dey, Schneider, Maier, 2016). In other words, intermediaries or enablers in social entrepreneurship context are agents that act

as catalysts to support the social enterprise ecosystem. These intermediaries can be either a financial or non-financial intermediaries. A financial intermediary organization links the capital providers with social investment opportunities, while a non-financial one influences a more significant area of the social enterprise through capacity building, developing the market framework, and collaboration.

III. Methodology

To give a perspective to the topic, the paper dissects the social finance ecosystem in a broad approach, by looking at different layers of the ecosystem: the buy-side (investor), sale-side (social enterprise) and support-side (enablers) which comprise the social finance ecosystem.

3.1 Data Collection

Data on social entrepreneurs was collected in a month period from November 15th, 2016 to December 12th, 2016 via surveys, individual interviews and focus group discussions. The research focused its analysis on social enterprises in the process of raising funds that raised funds or that failed in their fundraising efforts.

Desk research identified 324 social enterprises, 108 investors (including 12 impact investors), and 62 enablers as potential research participants. Surveys and initiation to participate in interviews and discussions were sent, resulting in 26 responses for social enterprises, 53 investors (including four impact investors), and 11 enablers. The analysis was conducted based on 90 valid responses.

3.2 Measures

Aligned with the research questions, there are several qualitative measures in analyzing the key stakeholders.

Table 1. *Measures of the Qualitative Research*

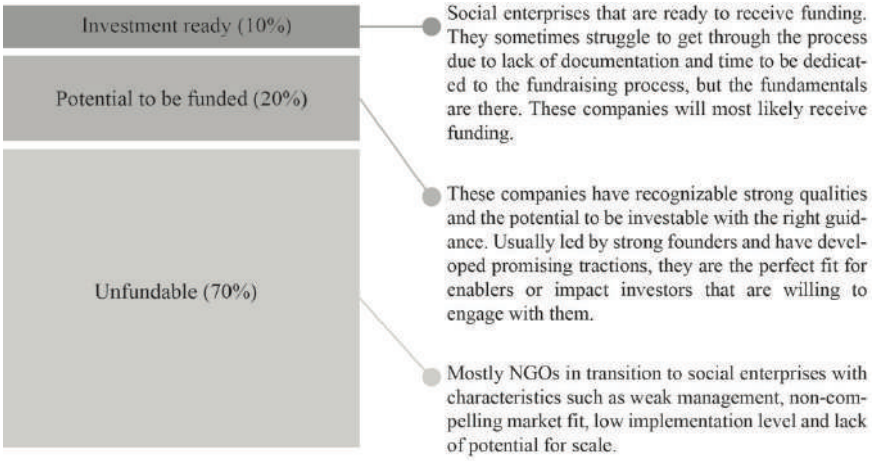
Stakeholders	Measures
Demand-side: Social enterprises	• Enterprise sector • State of investment readiness • Quality of the founders
Supply-side: Investors	• Taxonomy of investors • Investment instruments • Ticket size of investment • Challenges and limitations
Intermediaries: Enablers	• State of enablers in Indonesia • Effectiveness • Challenges and limitations

IV. Results and Discussion

4.1 Demand Side: Social Entrepreneurship in Indonesia

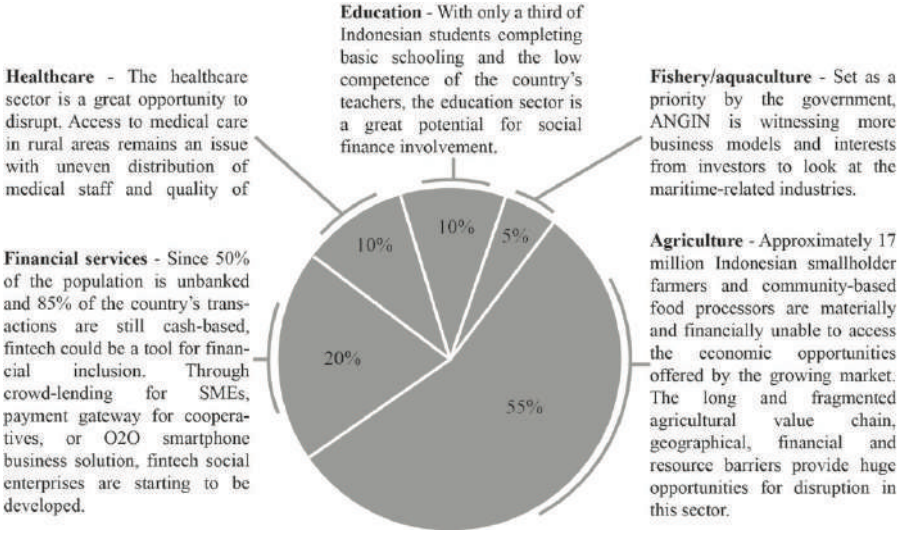
From the analysis, the authors categorize Indonesia's social enterprises into three states of investment readiness:

Figure 2. *Categories of social enterprises' investment readiness*



As shown in Figure 2, the issues on the number of social enterprises that have potential and ready to be funded need to be addressed, because the acceleration of social investment depends heavily on the investment readiness of the social enterprises (Gregory et al., 2012). Furthermore, around 70% of the social enterprises in Indonesia are in pre-seed and seed-stage and around 80% of the social enterprises are five years old or younger as most of them were founded following the emergence of the startup trend in 2012. On average, they would require funding from IDR 130 million up to approximately IDR 1.3 billion. Most of these enterprises are still trying to validate their business model and fine-tuning the right product-market fit, and have yet to plan for expansion that will require a larger amount of capital. On another aspect, Figure 3 represents the areas of opportunity for impact (relating to UNDP's Social Development Goals) and social finance's proof of concept. In addition, many of the sectors are heavily shaped by geographic and demographic, as well as infrastructure profile in Indonesia.

Figure 3. *Indonesian Social Enterprise's Sector Domination*



This research also identified some key trends in Indonesian social enterprise. Firstly, there is an **incline in numbers of technology-based social enterprises,** compared to 2014. Secondly, several social enterprises that successfully raised capital have grown with the **support of larger corporations**. The role of corporations had been key in providing early funding, key operational expertise and the human resources to early-stage ventures. Regarding gender approach, 25% of the social enterprises encountered are led by **female entrepreneurs**.

From the founder's side, there are three types of successful Indonesian social enterprises that have received external funding. The first type is associated with educational background. Many of successful entrepreneurs were educated abroad and decided to bring home the learning curve and set up their own venture in observance of the social issue in Indonesia. Most of them have a certain form of safety nets, such as the familial support or professional career. These groups attract investors not only because of their strong education pedigrees, but also their family or professional associations. The second type is social enterprises owned by foreign nationals. Most of them have a development background such as working with Peace Corps or UN Agencies. The decision to live in Indonesia is driven by their social mission and personal willingness to create change in the community. As a result of being an expatriate with previous work in development space, most of them have the right connections to foreign investors, media and other networks of support that may be inaccessible to Indonesians. The last type is called 'hyperlocal'; Indonesians who were educated in Indonesia, observed social issues in their own community, and build mostly local solution. They may have challenges at first in building their credentials with foreign investors and thus, most of the investment come from local investors.

4.2 Supply side: investors in Indonesia

4.2.1 Types of Investors

There are various types of investors identified in Indonesia' social finance landscape:

Friends and family financing is commonly used by social entrepreneurs as their first source of capital. It is usually the easiest to obtain as it involves very light documentation (sometimes social entrepreneurs do not even record this investment accurately on their balance sheet) and it often takes less than a month to close this funding. From the analysis, friends and family rounds are usually in the IDR 65,000 to IDR 325 million range, rarely going over IDR 390 million.

Bootstrapping/internal funding is not an external funding source per se; some social entrepreneurs opt to focus on revenue generation and to find a shorter path to break-even to grow their company organically. This decision is usually taken after an extended period of unsuccessful fundraising process, or based on the desire to avoid dilution and to not have any external parties to report to.

Crowdfunding is a growing topic in Indonesia. Crowd or Peer-to-Peer (P2P) platform allows social enterprises to raise capital from a large crowd of retail individual investors with the platform serving as the facilitator of the transaction. The capital raised could be structured as donation, equity or debt. Through this mechanism, social enterprises would have access to capital below IDR 260 million. However, the regulation on peer-to-peer licensing has yet to be fully clarified by the OJK and thus, it is still considered a grey zone.

Angel investors are individuals with disposable capital and the intention to mentor and invest in early-stage companies. They can act individually or jointly with other angel investors to form a network or a group, thus mutualizing resources and expertise. The angel investors have the decision power to invest (different from being a Limited Partner with a Venture Capital), and their investment decisions are usually based on a combination of rationality and a sense of passion. Typical ticket

size in Indonesia would be IDR 650 million, but angel investors are flexible by nature and would be able to start funding social enterprises with a ticket size as low as IDR 65 million.

While not used by many social entrepreneurs, the government is running several initiatives aiming to finance SMEs (Small and Medium Sized Enterprises) which most social enterprises are categorized into. The range of funds distributed per organization varies but can be up to IDR 5 million for micro businesses, IDR 50 million for small businesses, and IDR 100 million for medium enterprises and cooperatives. Repayment period is between five to eight years. The main requirements for prospective recipients are: (1) The organization must have been running for at least two years, (2) It should have legal entity, and (3) It should have profitable for at least two years.

A **venture capital** invests funds in early-stage companies on behalf of the investors. In general, a VC consists of two main components: Limited Partner (LP) and General Partner (GP). LPs are the fund investors in the VC funds, while GPs consists of a partner(s), principal(s), associate(s) and an analyst team. While VC firms are not tied to financing social enterprises and do not have the primary intention of generating impact (double or triple bottom line), some traditional VCs play a significant role in funding early-stage impactful businesses. They take risk in investing smaller ticket size (~IDR 650 million to IDR 2.95 billion) in social enterprises with a low traction level and business models that still need to be proven.

Impact investor is engaged in investments that are being made into companies, organizations, and funds with the intention to generate social and environmental impact along with a compelling financial return. There are two types of impact investors: equity-focused and debt-focused with an appetite to do equity investments.

Banks are financial institutions licensed by the Bank Indonesia (the Indonesian central bank) to receive deposits and issue loans. Banks may also provide financial services, such as stock trading, wealth management and currency exchange. There are two types of banks: commercial/retail banks and investment banks. Most of the interviewed banks do not have exposure to social enterprises. They lack understanding of the concept and do not have any special financial products for social enterprises. Only companies with collaterals, mainly fixed assets, are proposed loans. The company would be able to offer collateral to the bank and thus would be able to secure a loan between 10% to 15% p.a. interest rate.

International multilateral organizations such as Asian Development Bank (ADB), International Finance Corporation (IFC), and the World Economic Forum (WEF) are playing a role in supporting social enterprises at a later stage and inclusive businesses. They are directly investing in social enterprises or are providing capital to existing funds through their funds activities.

4.2.2 Social finance instrument in Indonesia

Various financial instrument options are available to social entrepreneurs in Indonesia, depending on their type of proceeds, stage of the company, profitability and legal incorporation. Most social entrepreneurs are not savvy with or even aware of the various financing structures available to them. Below are the most common instruments encountered in Indonesia from the lowest to highest return expectations.

4.2.2.1 Grant

Traditional donations are commonly considered as a gift, as it does not involve a counterpart such as an interest or shares, given by individuals or legal entities to organizations with a social or environmental mission. Most Indonesian social enterprises receive the donation through their legal entity (i.e. PT) when the donor

can disburse the donation to such a legal entity or through a foundation (seen as the ideal recipient of donation for most donors). Donation in Indonesia is broadly available to social enterprises through social enterprise competitions and awards in the form of cash or in kind (e.g. equipment, hours of services).

Venture philanthropy is a hybrid between traditional grant-making and venture capital's best practices. It finances social enterprises through a donation, but it is treated as a venture capital investment both in terms of the selection process, proceeds, reporting, objectives and hands-on support such as capacity building attached to the funding. The grant would fund high-risk social enterprises' early operations, typically made together with an impact investment. It is meant to prevent the entrepreneurs from having to source the fund for its costly operational expansion from its balance sheets in a market with various frictions.

4.2.2.2 Debt

A collateralized loan is a loan in which the borrower has pledged some of its assets (e.g. land, equipment, buildings) to get the debt line issued. Collateral serves as a guarantee in case of non-repayment of the installments and interest as stated in the loan agreement. This is the most common instrument provided by commercial banks and impact investors. Early-stage social enterprises usually obtain a loan at 10-15% p.a.

A non-collateralized loan is the riskiest type of loan for the lender as it is not guaranteed by any assets, leaving the borrower's signature and law enforcement options as the only securities for loan repayment. This type of loan typically has higher interest rates than collateralized loan in consideration of the risk, usually above 15% p.a.

Trade financing is a short-term loan financing trade or export transaction. In a broad definition, trade financing includes lending facilities, letter of credit issuance, export factoring, and export credits. It usually involves a triangulation between the buyer, seller and the investor.

While a traditional loan involves a negotiated fixed coupon interest rate as well as fixed installment periods and maturity, **revenue share loan** is proportioned to the performance of the company. The interest is a variable of the company's future metrics (revenue, profit or even net cash flow). It is still technically a loan, but there are no fixed payments, no set time for repayment, and no set interest rate. The investor and the company share both the upside and the downside embedded in the transaction. This is typically the type of financing considered by impact investors when equity investment is not feasible, and the expected upside justifies a revenue share. Sharia-banking imposes this type of risk-shared scheme.

Account receivable/invoice financing is a means to finance the time that a company needs to collect payments from customers and the time required to pay its suppliers. Typically, modern retailers (such as Ranch Market or Kem-Chicks) will pay within 60 days while a social enterprise must pay its supplying smallholder farmers upfront at delivery of the supply (could even be ahead of the harvest). It is a short-term debt financing that takes accounts receivables (invoices) as collateral. This type of financing is gaining popularity among the Indonesian technology peer-to-peer lending platforms. Online financial technology platforms such as Investree, Modalku, Kredivest are offering account receivable financing to SMEs.

4.2.2.3 Grant Equity/Quasi Equity

A **convertible note (CN)** is a form of debt that can be converted into equity at a discount (~5-20% in Indonesia), and the conversion is typically triggered by a future financing rounds (called a qualified financing). In Indonesia, most of the investments by VC firm in the technology industry and foreign-based investors are executed in the form of a CN for two main reasons: 1) it is too early for the company to be valued,

so a CN is used to bypass/postpone the valuation process, 2) the investor is foreign-based and will not be able to inject equity into the company directly. A CN allows the investor to carry out investment while avoiding the PMA structure (which is usually impossible for ticket size below IDR 6.5 billion).

An **equity** investment is a means of financing that takes shares/ownership in exchange for the capital invested. The number of shares taken will be based on a valuation agreed upon with the entrepreneur. The equity rounds are usually labelled from pre-seed to Series A/B/C, depending on the stage of the company's ticket size and the use of proceeds. A typical seed equity investment in Indonesia will finance the early go-to-market expansion of a company and will amount between IDR 600 million and IDR 6.5 billion for 10-30% ownership of the company. This is the tool usually used by venture capitals, impact investors and angel investors as it provides the potential financial gain to balance the risk of the investment.

4.2.3 A Focus on Impact Investing

There are four kinds of impact investors operation implementation in Indonesia identified: fully foreign-based who are operating remotely from overseas, foreign-based with a local partner or team, purely domestic-based, and foreign-based but pulling out the operations from Indonesia. Having been underestimated as a potential economic force among its more well-known Asian peers in the past, Indonesia is deemed by the investors ANGIN interviewed as one of the strongest potential markets for social finance. This is driven by the size of the demography, increasing internet/mobile penetration and agrarian/maritime potential, among other factors. Impact investors remain confident in the Indonesian economic fundamentals and ANGIN sees more players are willing to engage resources in the country.

Between 2014 and 2016, the number of identified active impact investors in the country has not increased significantly and remains at an estimated number of 30 investors. Some investors have started to invest and several ceased operations in Indonesia. Currently, the total AUM is difficult to assess as organizations rarely report their entire AUM. ANGIN estimates that IDR 265 billion of impact investment capital has been invested over the last two years.

The research identifies 25 **new impact investors looking for prospects in Indonesia**. Some of them are actively looking to hire a full-time investment manager or country head, while others are currently in due diligence on several deals, inferring that they will become active in 2017.

Between 2014 and 2016, at least four **impact investors left Indonesia** (i.e. withdrew the local staff and ceased investment). The most common reasons were the lack of investable pipeline fitting their investment mandate, geographical focus on other regions, the lack of capital to continue investing, and internal governance issues.

There is a **silent but dynamic activity** of the trade finance impact investors: Several impact investors are active in funding the trade financing needs of social enterprises. As an example, Root Capital claimed to have disbursed several million dollars in over a portfolio of seven companies, mostly coffee businesses or cooperatives. Similarly, ResponsAbility has worked with several organizations such as Big Tree Farms. Except for direct investments in equity, these investments do not get any exposure and are not published by either the companies or the investors. ANGIN anticipates for several agriculture-related businesses in their growth stage to export.

From our research, Indonesia **still lacks domestic capital providers**. Most of the capital providers identified have their investment arm (i.e. the actual fund) abroad.

Only Unitus Impact seems to have a small pool of capital incorporated in Indonesia aside from their largest fund based overseas. ANGIN, YCAB Ventures and Kinara are among the only investment structures operating with funds from Indonesia.

4.2.4 Deal Transactions

While the Indonesian social finance scene has grown in terms of exposure and media attention, **the authors are yet to see a clear proof of concept that more funding is being deployed**. In 2014 and 2015, impact investors in Indonesia made around 15 new investments although the total amount is difficult to measure, with a rough estimation of IDR 260 billion. This amount is below the regular technology VC space which brought IDR 11.2 trillion of investment in more than 60 companies in 2015, which is dominated by e-commerce and consumer internet companies.

The analysis estimates that the ticket size of 60% of the transactions (in number) were done in the IDR 1.3 billion to IDR 6.5 billion range, 35% in the IDR 13 billion to IDR 26 billion range, and 5% beyond IDR 26 billion. **Equity and trade financing as the commonly used financial instrument**. From our research, equity represents 30% of the transactions, followed by quasi equity at 30%, debt at 30%, and other types of investments at 10%.

4.2.5 Common Barriers to social invest in indonesia

The legal environment is seen as a barrier to investing, and there is a low understanding of how to invest in Indonesia. From our interview with impact investors, mostly foreign-based ones, very few managers have a full understanding of the legal framework to disburse capital in Indonesia, from issuing a loan to injecting equity. Their market prospecting time has been focused on building a pipeline of companies, and the legal side has been postponed to later stages when the actual transaction occurs (learning by doing). The lack of comprehensive platform and access to reliable legal/notary services were among the issues pointed out.

There is a **lack of the quality pipeline of investable companies**: 80% of the impact investors interviewed acknowledge the lack of the quality pipeline. Some of the common gaps mentioned: 1) quality of the solution/less innovation in the business model versus other regions (80%), 2) low potential for scalability (70%), 3) low level of tractions validating the model (60%), 4) low IRR/exit expectation (40%), and 5) lack of documentation readiness (e.g. financials, contracts) (35%).

Some social entrepreneurs with minimum business background face **challenges in bookkeeping and financial projections**, which are critical for fundraising. This is for companies that provide debt instruments to social entrepreneurs. Debt requires clear four-to- five-year projections on the three (3) fundamental financial documents: Profit and Loss, Balance Sheet and Cash Flow. Most of the social entrepreneurs are not able to comply with this exercise and impact investors do not have the internal resources to support the pipeline in doing so.

4.3 Intermediaries/enablers

In a relatively nascent ecosystem, social enterprise enablers have aimed to fill the funding and support gaps between investors and social enterprises in Indonesia. Regarding capacity building, the enablers target early-stage companies, typically in their first to the third year of operation. They provide different sources of support such as business canvas preparation, monthly mentoring, pitch deck presentation or access to the network. Enablers are aiming to address the “pioneer gap”, referring to the frictions borne by companies pioneering new implementation and business models targeting social or environmental impact. This gap usually occurs before the companies are ready to be qualified for impact investors (transitioning to the

growth stage).

The research sees a growing trend of social enterprise enablers. Social enterprise enablers have been around for several years in Indonesia with Ashoka being the first one to enter in 1983 before the concept of social entrepreneurship was even popularized. Ashoka is a network of global social entrepreneurs that provides financial, professional and network support to social enterprises. In its 33 years of activities in Indonesia, Ashoka has selected 180 social entrepreneurs such as Ashoka Fellows — social enterprises that aim to provide innovative solutions to social problems and potential impact on the society.

Meanwhile, the growth in technology startups and venture capital since 2012 has coincided with the emergence of more enablers supporting the social enterprise ecosystem. In 2012, LGT VP entered Indonesia in partnership with GEPI (Global Entrepreneurship Program Indonesia) to launch its Smiling World Accelerator Program (SWAP) dedicated to early-stage social enterprises. This program aimed to help early-stage enterprises develop and scale up by providing financial, network and mentorship support. LGT VP made its first investment in Indonesia to Krakakoa in 2015. The investment was in the form of a 3-year loan, used to finance processing equipment that would help improve workflow. Krakakoa also received support in the form of network and mentorship from LGT VP's ICats Accelerator and Investment Manager for Indonesia.

In 2014, UnLtd Indonesia launched another accelerator program dedicated to social enterprises. Supported by the Rockefeller Foundation, UnLtd is now operating its fifth cohort of incubation. One of the last initiatives in 2016 is the Kinara impact accelerator that has selected ten companies working in the field of food security and agriculture for a three-month curriculum program bringing them to a better investment readiness.

The research identified that 62 enablers had been running programs in Indonesia throughout 2016. Non-monetary type of support increased by more than 300% compared to 2015. Last year has brought in more varying schemes of enablers, compared to the early 2010s where social enterprise enablers consisted only of workshop and support groups.

4.3.1 Challenges and Limitations

Although the quality of certain enablers has improved regarding selection process and curriculum, as well as providing wider access to grants funded from competition and awards, improvements are still needed to be made based on below key findings.

Enablers could be a distraction for social entrepreneurs: A couple of companies encountered still rely on these donations to cover their early-stage activities, while this should be done from market-based streams of revenue. Several companies are spending a significant amount of time applying to capacity building programs without assessing whether the programs are relevant to their needs and business.

Lack of sector-specific focus enablers: Most of the enablers that are dedicated to social enterprises are sector/industry agnostic and do not customize their capacity building curriculum to the industry in which the social enterprises are operating in. In most programs, the only segmentation is done based on the stage of the companies and the maturity of the operations. Enablers lack the specialization and expertise in their domains. On the technology side, some enablers have managed to propose laser-focused on verticals.

Lack of mentors with the right expertise: Most of the enablers are limited regarding access to a pool of industry veterans and experts. Most of the human resources used to nurture the social enterprises come from the NGO space (low experience in running businesses) or are of generalist profiles. The mentors operate on a pro bono basis, which also limits the time involvement.

Limited connections to social finance: Most of the enablers are not integrated with an investment arm and still rely on pitching session and investor forum to bridge incubates/accelerates with social financiers. Most of the enablers involve the investors too late in their programs.

Lack of impact Metrics: Most of the enablers measure the operational (e.g. a number of teams, outlets) and financial performance (e.g. GMV, Revenue, EBIT, Net Profit) of their incubatees, but none of them collects social performance and impact evaluation data beyond the information provided by the companies. There is no third- party assessment as such resource is not available in Indonesia.

Lack of KPI and difficulty to measure the added value of the enablers: Most of the enablers interviewed do not understand the endgame of their capacity building. There is no research available to help understand the impact of the accelerators by, for example, matching a comparable group of social enterprises that do not participate in capacity building programs and those graduating from the programs: do we see an acceleration in reaching key operational and impact milestones, do they raise venture capital/angel investment or impact investor funding faster and do they provide faster exit by acquisition.

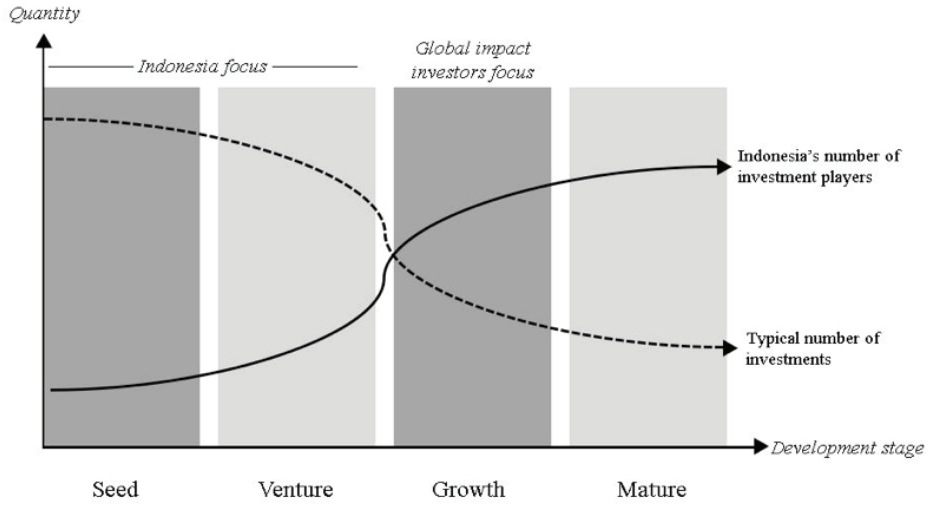
Social enterprise enablers in Indonesia have gained popularity and grown in numbers, but the quality and content relevancy of the enablers to the social enterprises is to be challenged. Even with a growing number of enablers, Indonesia still proves to be far from being able to provide social enterprises with the necessary means for development (e.g. advice, access to mentorship, coaching and network). Moreover, 80% of social enterprise socializing efforts are still concentrated in the Java islands (mostly Jakarta), leaving a lot of areas untouched. There is still space for social enterprises and its enablers to grow in Indonesia. If properly socialized and managed, Indonesia will see the emergence of more successful social enterprise cases in the future.

4.4 Social Finance Landscape in Indonesia: The Missing Middle Gap

By and large, the social financing landscape in Indonesia remains juvenile, although it is currently transitioning. The volume of funds disbursed is low and the financial instruments used does not vary compared to the more mature markets such as India and the United Kingdom. Regionally, Indonesia remains in the top three of impact investment destinations together with the Philippines and Vietnam. What sets Indonesia apart from its counterparts in Southeast Asia is its promising landscape: 1) the population boom will bring 90 million people into the consumer class by 2030, 2) currently, 90% of Indonesia's workforce relies on small medium enterprises, in which 79% of them still encounter challenge to access financing. However, complicated regulatory and bureaucracy make it difficult for foreign investors to enter the market. Meanwhile, the number of local investors is too low to finance them.

Concerning the supply and demand of funding, Indonesia is facing a typical "missing middle gap" where there are very few social enterprises that are investment ready, while there are a large number of investors who are willing to put capital in the growth and mature stages. Conversely, there are many early-stage social enterprises that require more funding, while there are very few of investors who are willing to invest.

Figure 4. *Investment vs. social enterprise distribution across lifecycle*



V. Conclusion and Recommendation

5.1 Conclusion

The research has helped in understanding better the needs and barriers of several players involved in the social entrepreneurship ecosystem. Problems occur differently for each key players. Below is the summary:

Table 2. *Summary of problems in social entrepreneurship ecosystem based on each player*

Ecosystem Players	Problems identified
Social enterprise	• Many are not investment ready
Investors	• Legal barrier and low understanding of investing in Indonesia
Enablers	• Can be a distraction for certain social entrepreneurs • Lack of sector specific focus • Lack of mentors • Difficulty to measure KPI and added value • Lack of impact metrics • Limited connections to social finance

5.2 Recommendation

Acknowledging that there is a missing middle gap in the distribution of investment across social enterprises, there has been a consensus about blended finance as a solution. It is the combination of public and private capital to finance social enterprises, achieve SDGs, and increase the effects of international development agency funding. According to the World Economic Forum (2015), blended finance is an approach to a development finance that employs the "strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets". Furthermore, the characteristics

of blended finance are defined as first, to leverage the use of development finance (e.g. IFC, ADB) and philanthropic funds (family foundations and NGOs) to attract private capital. Second, blended finance prioritizes all aspects of impacts (social, environmental, and economic). Third, the returns for private investors are in line with market expectations based on perceived risk.

Different tools are available to implement blended finance approaches; this paper will focus on supporting mechanisms and direct funding schemes.

Table 3. *Supporting mechanism and direct funding approaches on each level of social enterprise lifecycle*

Life Cycle	**Pre-Seed**	**Seed**	**Seed/growth**	**Growth**
Objectives	***Preparing***	***Pioneering***	***Facilitating***	***Anchoring***
Issues	High upfront costs to start social enterprise; high risk that a project will not be launched	High business model risk; high transaction costs	Sectoral or project risks; returns below commercial rates	Macro or sectoral risks; liquidity, refinancing and inefficient markets
Supporting Mechanism	Replication model (Sharing local and global market knowledge and experience)	Corporation involvement (incubator grant) Domestic impact evaluation entity (building local capacity)	Domestic impact evaluation entity (building local capacity) Financial literacy training for social enterprises (building local capacity)	Risk underwriting with hedging facilities (forex risk) Advocacy/training for local banks (building local capacity)
Direct Funding	First loss pioneer fund			

5.2.1 Support Mechanisms

Every life cycle in social enterprises have different objectives: as for pre-seed stage, the main issue faced is the high upfront costs to start and also higher risk of failure. Especially in Indonesia, there is a lack of compelling capacity building programs. As a result, social entrepreneurs and enablers spend significant time and capital to develop and establish new business models that capture value and impact, with a lower chance of success due to the lack of support for capacity building.

The recommended supporting mechanism for pre-seed enterprises is the replication model. The replicator's business model is to copy overseas proven social venture's and execute these models effectively in Indonesia. The replicator will capture the learning curve by partnering with the successful social enterprises across the region or worldwide and will recruit similar-minded entrepreneurs and talents to execute the venture development. The funding will be injected by different parties (e.g. corporates, impact investors, angel investors, etc.) and the incubation will be done by a local company builder or investor.

After reaching seeding stage, the enterprises would have high business models risks and also transaction costs. One of the supporting mechanisms is to involve large corporations through incubation grants. They already have the existing scales and assets; large corporations have tremendous potential coverage across Indonesia. They also have a deeper understanding of the value chain; which can benefit newer enterprises. The scheme would usually involve a matching between corporations and existing social enterprises that share the same objectives and missions. The social enterprise may grow organically in partnership with the corporation or through a joint venture. Another alternative is where the corporation may eventually choose to acquire the social enterprise.

Impact measurement is difficult for seed or growth stage due to the lack of domestic knowledge and trained staffs, and as a result, the evaluation is done using overseas resources which will increase the cost. The issue can be remedied by piloting a domestic impact evaluation entity that can provide services to local social enterprises and even overseas players. The Acumen's lean methodology could be one option to pilot. It will involve having the Acumen's team to come to Indonesia and train local staffs who could highly leverage on performing local participants (like hand-picked students) to do the impact evaluation assessment (on the model of the BCG giving back program).

Another issue identified for these stages is the lack of financial literacy of social enterprises. A proposed supporting mechanism is building a training facility designed to help selected social enterprises in the preparation to generate financial statements such as accurate profit and loss, balance sheet and cash flow statements. The training would be done on companies with the potential to export and raise debt from trade financiers such as Oikoscredit, Root Capital and ResponsAbility.

On the other hand, the cost of hedging the Indonesian rupiah is an issue for several impact investors lending from overseas. Several impact investors mentioned a cost of 7.0 to 9.0 % p.a. to hedge the principal amount. This can be addressed by setting up a hedging product, alternatively in the form of an independent financial technology company, to offer affordable currency options to impact investors. The form and implementation would need further research.

Lastly, there is an insufficient understanding from local banks in social enterprise model, which refrain them from investing. For instance, banks are comfortable with simple agriculture models rather than more complex models for other crops. This issue can be amended by designing a training or workshop targeting local banks in meeting and understanding social enterprises model. A facilitator will train the bank relationship managers and financial product design teams in understanding the risk and its mitigation tools. A pilot in the agriculture supply chain could also be considered.

5.2.2 Direct funding scheme

Another tool in the application of blended finance is direct funding scheme. As discussed in the previous chapter, there is a lack of seed funding as banks and impact investors think that there is a higher risk in investing in early-stage enterprises. A catalytic or 'first loss capital' structure would encourage the flow of capital to Indonesian social enterprises by improving their risk-return or by providing an incentive for other capital providers to invest. The structure of first loss capital could take several forms, such as credit guarantee, subordinated debt, matching grants and most junior equity positions. As an example, Panin Bank's top executive expressed that they would be interested to consider a loan to smaller enterprises and social enterprises if there was an institution willing to provide a guarantee.

References

Angin. (2016). *Social Finance and Social Enterprises: A New Frontier for Development in Indonesia*. United Nation Development Programme.

Austin, J., Stevenson, H. and Wei-Skillern, J. (2006). *Social and Commercial Entrepreneurship: Same, Different, or Both?*. Entrepreneurship Theory and Practice, 30(1), pp.1-22.

Benedikter, R. (2011). *Social Banking and Social Finance: Answers to the Economic Crisis*. New York (NY): Springer.

Boston Consulting Group (2015). *The Art of Sustainable Giving: Priorities to Accelerate Social Enterprise Growth in Indonesia*. Boston Consulting Group.

Chi, RY., Chou, NT. (2012) *Small enterprise development: Evidence from China*. International Journal of Microfinance and Business Development, 14(2), pp.10-12.

Cooch, S and Kramer, M. (2006). *Compounding Impact: Mission Related Investing By US Foundations*. Foundation Strategy Group

Dey, P., Schneider, H., Maier, F. (2016). *Intermediary Organisations and the Hegemonisation of Social Entrepreneurship: Fantasmatic Articulations, Constitutive Quiescences, and Moments of Indeterminacy*. Organization Studies, 37(10), pp. 1451-1472.

Emerson, J. (2006). *Blended Value Investing*. World Economic Forum.

European Commission, Directorate-General for Employment, Social Affairs and Inclusion (2016). *A recipe book for social finance – A practical guide on designing and implementing initiatives to develop social finance instruments and markets.* Luxembourg: Publications Office of the European Union.

Gregory, D., Hill, K., Joy, I. and Keen, S. (2012). *Investment Readiness in the UK*. Big Lottery Fund.

Griffith, M (2006). *Blended Value and Social Investment: New Approaches to VCS Funding*. NCVO.

Hangl, C. (2014). *A Literature Review About The Landscape Of Social Finance*. ACRN Journal of Finance and Risk Perspectives, 3(4), pp.64-98.

Lehner, OM., Nicholls, A. (2014). *Social finance and crowdfunding for social enterprises: a public–private case study providing legitimacy and leverage*. International Journal of Entrepreneurial Finance, 16(3), pp.271-286.

Mair, J., Marti, I. (2006). *Social entrepreneurship research: A source of explanation, prediction, and delight*. Journal of World Business, 41(1), pp.36-44.

Nikièma, SH. (2012). *Best Practices: Definition of Investor*. The International Institute for Sustainable Development.

Scholtens, B. (2006). *Finance as a driver of corporate social responsibility.* Journal of Business Ethics, 68, pp. 19–33.

Linking Open Data and the Fight Against Corruption in Indonesia

Arthur Glenn Maail[1]
World Wide Web Foundation Open Data Lab, Jakarta

Abstract

In 2015 the G20 Anti-Corruption Open Data Principles were developed, as a first step towards leveraging open data as a crucial tool for enabling a culture of transparency and accountability in order to address corruption. The purpose of this study is to assess the extent to which Indonesia is meeting its commitments towards fighting corruption by applying and implementing the principles and actions set out in the G20 Principles. Hence, the G20 Anti-Corruption Open Data Principles is used as an analytical framework to guide the analysis. The research findings show that the government of Indonesia puts the disclosure of public information at the front and centre of both its open government and anti-corruption agenda, which is consistent with the first of the G20 Anti-Corruption Open Data Principles. However, the current legal frameworks lack the proactive disclosure and openness components advocated by the open data principles.

[1] Arthur Glenn Maail is Research Manager at World Wide Web Foundation Open Data Lab, Jakarta. Email address: glenn@webfondation.org

Linking Open Data and the Fight Against Corruption in Indonesia

Arthur Glenn Maail, World Wide Web Foundation Open Data Lab Jakarta

I. Introduction

In recent years, there has been an increase in the availability of open data - data that can be freely used, modified and shared by anyone for any purpose (Open Definition, n.d). Open government data is emerging as an important tool in the fight against corruption by enabling increased transparency of government activities, budgets and expenditures, as an important ingredient in various accountability interventions (Davies, 2014). There is a movement and demand for government to open up more data and processes to improve information disclosure and transparency, to facilitate public scrutiny, and to allow for information that is easier to work with and compare, for reduced mismanagement and corruption of resources to help secure a fair deal for governments and citizens (World Bank, 2017).

In 2014, the G20 Anti-Corruption Open Data Principles (hereafter G20 Principles) were developed as a first step towards leveraging open data as a crucial tool to enable a culture of transparency and accountability to address corruption. It was agreed to follow a set of principles based on the International Open Data Charter[2] as the foundation for access to, and the release and use of, government data to strengthen the fight against corruption.

As is the case with international standards, it is crucial to ensure that the G20 Principles are translated into national-level policy and practice. The purpose of this study is to assess the extent to which Indonesia is meeting its commitments towards fighting corruption by applying and implementing the principles and actions set out in the G20 Principles, and to highlight how these principles can be implemented for open data to become an effective tool in the fight against corruption. It also seeks to present selected examples of good practice in the use of open data to combat corruption. The main goals of the analysis are to find answers to the following questions. How much progress have Indonesia made in implementing open data as part of an anti-corruption regime? What are the main national government policies and practices for open data and anti-corruption? And where is there room for improvement in moving towards the Principles?

II. Literature Review

2.1 Anti-Corruption in Indonesia

Corruption prevention and eradication (CPE) have become one of the main focuses of the Government of Indonesia after the reform era. The determination to carry out CPE began with the establishment of new implementing agencies, the consolidation of government policies and through community awareness. As a bold action on ratification of the United Nations Convention against Corruption (UNCAC) 2003, Indonesia enacted the Law No. 7 of 2006, which mandated establishment of several implementing agencies and institutions in support of CPE including Corruption Eradication Commission (KPK), the Financial Transactions Analysis and Report Center (PPATK) and the Witness and Victim Protection Agency (LPSK).

Since 2004, the government has formulated two National Strategies for

[2] Open Data Charter. (2015). History. Retrieved from http://opendatacharter.net/history/.

Corruption Prevention and Eradication (Nastra CPE) to provide the direction for the various CPE efforts to all the stakeholders. The Presidential Instruction Number 5 of 2004 on Acceleration of Corruption Eradication in Indonesia provides a legal basis for the development of the first Nastra CPE (Nastra CPE 2004-2009). This was followed by the issuance of Presidential Instruction Number 9 of 2011 (on the Action Plan for CPE) and Presidential Instruction Number 17 of 2011 (on the National Action Plan for CPE). The first Nastra CPE focuses on prevention through redesigning and improvement of public service performance to facilitate public access and to guarantee professional, high-quality to services, strengthening of transparency, supervision, and sanctions on government activities relating to economic and human resources. The strategy also prioritizes enforcement action on five development sectors that are prone to irregularities including business licensing, taxes and custom, land registration, law enforcement and labour and employment.

The second Nastra CPE, based on the issuance of the Presidential Regulation (Perpres) Number 55 of 2012, has both a long-term vision and medium-term vision. The vision for the long-term (2012-2025) is: "to create an anti-corruption nation that is supported by a system of cultural values with integrity." The new administration of President Joko Widodo (Jokowi) has reinforced Indonesia's commitment to CPE by issuing Presidential Instruction Number 10 of 2016 on the Prevention and Eradication of Corruption 2016-2017. The regulation includes 31 action plans within seven high-priority areas according to the President's programs, namely: (1) Public procurement; (2) Extractive industry; (3) Infrastructures; (4) Private sector; (5) State revenue; (6) Commerce; and (7) State-owned companies.

The consistent efforts in implementing the Nastra CPE have started to show positive outcomes. Indonesia's ranking in the 2015 global Corruption Perception Index (CPI) survey have improved to 88th place (from 107th in the previous edition). Although this is a very encouraging development, the nation is still quite low in the ranking. The total number of corruption cases processed by KPK continues in increasing trend, even though in the past two years, the number of cases found is slightly less than its peak in 2014 (KPK, 2016). The top corruption cases in Indonesia include:

- Bribery, especially in the extractive and infrastructure sectors, is the top corruption case in Indonesia. As an example, in 2013, the Singapore-based Kernel Oil company paid Indonesian oil and gas regulator chief some $700,000 in bribes in an attempt to break into the nation's oil industry (Jong, 2013). Several other suspects were later arrested including then ruling Democratic party top officials (Saragih, 2013; Halim, 2015).
- Public procurement is a high-risk sector where more than 30% of the state budget is spent (MCA, 2015). Over the past decade, corruption in public procurement sector in Indonesia is consistently among the top three cases handled by KPK. This amounts to a total of 28% of corruption cases handled by KPK, which resulted in significant loss of public money. The recent high-profile corruption case concerning procurement activities in the national electronic identification (e-KTP) project contributes to approximately 1.2 billion IDR (91 Million USD) in state losses (Jakarta Globe, 2016).
- Budget mismanagement is also among the highest category of corruption cases in Indonesia. The report compiled by the Indonesian Corruption Watch (ICW) for all alleged cases being examined by the police, prosecutors and the KPK shows budget mismanagement as the highest corruption category between 1 July – 31 December 2015. They found a total of 134 cases, resulting 803,3 million IDR in state losses (Tashandra, 2016).

The Indonesian public is increasingly aware and critical about the importance of eradicating corruption, which is fed through media coverage and the high

profile nature of the KPK. The Global Corruption Barometer survey in 2013 found that only 33% of citizens feel that the efforts by the government have been effective to fight the corruption. Most of them feel that corruption level has stayed the same or increased, where the legislative institutions, political parties and law enforcement agencies are mentioned as the most corrupt institutions. As Indonesia political landscape is changing, demand for transparency and accountability of the government entities growths significantly. In this situation, the flow of information affects public perception of the country's CPE strategy, and therefore, easy and effective public access to government data and the information is essential.

2.2 The State of Open Data in Indonesia

While there is a strong legal framework for public access to information, there are no similar formalized mechanisms governing open data in Indonesia. In the absence of an independent national strategy and policy framework, open data has, instead, been framed within the broader agenda of Disclosure of Public Information, the One Data policy and the Open Government Partnership (OGP), where Indonesia was one of the eight founding members .

The Law Number 14 of 2008 on the Disclosure of Public Information (DoI) is the legal basis to ensure citizen's right to access public information. This law was effectively implemented in 2010 with the issuance of Government Regulation Number 61 of 2010. The DoI law required the establishment of Information Commissions at the national, provincial, and district/municipal levels when needed. It also mandates the appointment of information and documentation officers in charge of the collection, documentation, storage, maintenance, supply, distribution and information services.

The implementation of the One Data policy basically aims to improve internal data management practices, including geospatial data within government agencies along with providing a guideline to the standardized publication of the data. This is a step forward towards ensuring availability and quality of government data. However, it is not clear whether the principle of open data will be integrated into the draft of the Presidential Regulation on E-Government which will also include regulation on the One Data policy. Nevertheless, there is a high possibility for the adoption of the principles as has been suggested by a senior official in the media. At present, the draft of the regulation is not yet available to the public (OGI, 2017).

The Indonesian OGP National Action Plan 2016-2017 also focuses on increasing availability and effective use of open datasets at the subnational governments. In addition to the existing national open data platform, which is one of the action plan commitments, some other sub-national governments have also their own data portals, including: (1) the Provincial Government of DKI Jakarta; (2) the City Government of Banda Aceh; and (3) the City Government of Bandung. A few are also publishing their datasets on the national portal, such as in the case of the District Government of Bojonegoro (OECD, 2016).

Moreover, Citizen's access to public information is also crucial to CPE strategy. The first and the second Nastra CPE emphasize on empowering the community in the process of eradicating corruption by creating a culture that upholds the principle of "the rule of law." These roles and rights were acknowledged in Law Number 31 of 1999 (later replaced by Law Number 20 of 2001), which was further elaborated in Government Regulation Number 71 of 2000 on Procedures for Implementation of Public Participation and Provision of Appreciation in the Prevention and Eradication of the Criminal Act of Corruption. This regulation gives certain rights to the public to obtain responses from the authorities in respect of complaints or information provided to the authorities. It also tries to give protection to citizens who offer information.

Overall, lack of policy, data management and publication, and engagement

strategy with potential users contribute to limited evidence of the impact of open data on social, economy, and political discourse in the country. Nevertheless, the open data movement has started to gain some traction as a stand-alone concept in the country, although the concept of open data is still relatively unknown to most of Indonesians (Alonso et al., 2013).

Still, there are several encouraging signs of government and civil society readiness, which fuels Indonesia position in the Global Open Data Barometer survey, where Indonesia ranked 40th out of 92 countries surveyed in the 2015 edition. Furthermore, civil society organizations and tech communities are leading the way in Indonesia's open data movement. These organizations are involved in data publication, data use, engagement, research and advocacy, covering several thematic sectors including government budgeting, public procurement, election, extractives and environment.

2.3 Analytical Framework

The analytical framework follows directly from the G20 AC Open Data Principles. The Principles commit governments to data that should be as follows:

- Open by Default
- Timely and Comprehensive
- Accessible and Usable
- Comparable and Interoperable
- For Improved Governance and Citizen Engagement
- For Inclusive Development and Innovation

For each principle, the specific global commitments made by the G20 have been turned into questions that can measure anti-corruption policies and practices. There are 35 questions in total, including both general questions and specific questions for ten datasets that have been identified as key to anti-corruption efforts. For the questions directed at anti-corruption datasets, binary responses have been created, enabling us to score performance.

The key anti-corruption datasets are the following:

1. Lobbying Registers
2. Company Registers
3. Beneficial Ownership Registers
4. Directories of Public Officials
5. Government Budget Records
6. Government Spending Records
7. Public Procurement Records
8. Political Financing Records
9. Legislative Voting Records
10. Land Registers

Indonesia was selected among the other four countries represented a variety of G20 economies from around the world but included countries whose international leadership has or will be in the spotlight, via the G20 presidency or the Open Government Partnership chair, for instance. For this reason, it can be expected that they have a keen interest in implementing open data for anti-corruption purposes.

III. Methodology

The research consists of both desk research and key informant interviews. Looking at the G20 Anti-Corruption Open Data principles, this was largely include country-specific policies, regulations, initiatives, commitments and projects which require a comprehensive desk review. In addition, key informant interviews with relevant experts in government and the country's open data and anti-corruption

expert community were conducted to contrast the desk review information and to assess the "practice" elements of the principles.

IV. Findings

The research findings show that the government of Indonesia puts the disclosure of public information at the front and centre of both its open government and anti-corruption agenda, which is consistent with the first of the G20 Anti-Corruption Open Data Principles. However, the current legal frameworks lack the proactive disclosure and openness components advocated by the open data principles.

Indonesia has comprehensive legal and institutional frameworks that guarantee citizen rights to access public information. Indonesia's Open Government Partnership (OGP) National Action Plan and the anti-corruption strategy both include public access to information as their key element. The use of public information for anti-corruption activities is part of the country's National Strategy on Corruption Prevention and Eradication (Nastra CPE). The current Nastra CPE also has objectives, activities and monitoring practices related to open government.

Figure 1. *Characteristics of The Key Anti-Corruption Datasets in Indonesia*

INDICATOR	Dataset Online	Timeliness	Granularity	Formats	Openness	Accessibility	Open Standards	Metadata	Documentation	TOTAL DATASET SCORE
Lobbying registers	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Company registers[I]	✔	✘	✘	✔	✘	✔	✔	✔	✘	5
Beneficial ownership	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Public officials	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Government budget[II]	✔	✔	✔	✔	✘	✔	✔	✘	✔	7
Government spending	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Public procurement[III]	✔	✔	✘	✘	✘	✔	✘	✘	✘	3
Political financing	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Voting records	✘	✘	✘	✘	✘	✘	✘	✘	✘	0
Land registers	✘	✘	✘	✘	✘	✘	✘	✘	✘	0

Nevertheless, the lack of clear procedures and adequately trained staff and the existence of conflicting regulations hinder both access to and the reuse of public information. Although there is a strong legal framework for public access to information, there are no comparable formalized mechanisms governing open data in Indonesia. The initiative that comes closest to meeting the criteria of an open data policy is the Indonesian One Data policy, including geospatial data with the One Map policy. It is not clear, however, whether the principle of open data will be integrated into the draft of the Presidential Regulation on E-Government, which will also include regulation on the One Data policy.

On the corruption prevention and eradication policy framework, the first and the second National Strategies acknowledged the importance of public access to information to support the fight against corruption. Apart from the budget, company register and public procurement data, however, access to key anti-corruption datasets remains limited (Figure 1). Implementation of the National E-Government Master Plan and the five-year plan for ICT development (2015–2019) should help to address the data infrastructure gaps. In a similar way, the One Data policy will provide a common framework for data management guidelines for public institutions to improve data quality, interoperability and integration, including provisions on data licensing and formats.

Domestically, there has been an effort to create enabling open data ecosystems, with civil society organizations (CSOs) and tech communities playing the leading role. The vision to encourage them to open up their data has not been translated into a real strategy, however. Internationally, the government of Indonesia is actively sharing open data anti-corruption technical expertise and experience with other governments and international organizations.

The growing role of citizens and CSOs since the beginning of the reform era in 1998, may potentially have the greatest impact in reducing corruption. There is a need to establish guidelines for citizen participation and support the capacity development of the CSOs, however, so as to take full advantage of open data anti-corruption activists in their advocacy work. There is also a need to explore the use of alternative channels for data and information sharing and to get citizens' feedback on published data.

V. Conclusion and Policy Recommendation

For open data to make a significant impact on anti-corruption activities in Indonesia, there must be a concerted effort to build a dynamic open data environment for the anti-corruption ecosystem. Such an effort will require addressing the following areas.

Legal and policy environment

Indonesia's legal framework for the Law on the Disclosure of Public Information is robust, but more must be done to streamline DoI implementation to make sure that citizens receive timely responses and are encouraged to submit more requests. The availability of data in open formats, without any costs and under open licenses, will strengthen the case for data-driven advocacy in anti-corruption activities.

Institutional framework

The establishment of the PPID offices and Information Commissions is a critical step towards increasing the transparency of national and local governments but some issues remain in terms of implementation. On the supply side, there are few clear procedures to decide what constitutes public information, some other conflicting regulations and the fact that only around two-thirds of PPIDs have been adequately trained. On the demand side, in order to promote wider access to information, the government needs to revisit the requirements for providing personal identification, as well as the need to provide a rationale for information requests.

Indonesia's technology infrastructure

The Indonesian E-Government development index is among the lowest in the Association of Southeast Asian Nations countries, indicating how slow public institutions are at adapting to the digital era. The government must commit to

connecting 100 percent of public institutions through broadband access by 2019 and complete development of the National E-Government Master Plan for all public institutions, together with its timeline, key performance indicators and budget.

Government data management

The One Data and One Map policies aim to address the lack of a standardized data management process across all government agencies. The new policy is expected to provide a common framework for data management, along with guidelines for public institutions, to limit redundant efforts and improve data quality, interoperability and integration, including also data licensing and formats.

Citizen engagement and capabilities

Innovative solutions using open anti-corruption key datasets, such as opentender.net and Info Anggaran, have opened up a promising path for evidence-based advocacy. The challenge now is to scale these efforts up so as to include more CSOs across different sectors. Another challenge is that the open data community need to get involved in more practical activities, such as hackathons and data meetups, unlike the anti-corruption community, which tends to engage with official feedback channels only.

References

Alonso, J. M., Boyera, S., Grewal, A., Iglesias, C., & Pawelke, A. (2013). *Open Government Data: Readiness Assessment Indonesia*.

Davies, T. (2014). *Open data in developing countries: Emerging insights from Phase 1*. Washington DC: World Wide Web Foundation.

Halim, H. (2015). *Court indicts Sutan for receiving SKKMigas bribe*. Jakarta Post.

Jakarta Globe. (2016). *e-KTP*. from http://www.jakartaglobe.beritasatu.com/tag/e-ktp

Jong, H. N. (2013). *Kernel executive sentenced to three years for bribing Rudi*. Jakarta Post, from www.thejakartapost.com/news/2013/12/20/kernel-executive-sentenced-three-years-bribing-akil.html

KPK. (2016). *Tindak Pidana Korupsi Berdasarkan Jenis Perkara*. from https://acch kpk.go.id/id/statistik/tindak-pidana-korupsi/tpk-berdasarkan-jenis-perkara

MCA. (2015). *Proyek Modernisasi Pengadaan. Jakarta: Millenium Challenge Account OECD*. (2016). Open Government in Indonesia: OECD.

OGI. (2017). *Forum Konsultasi Publik Rancangan Peraturan Presiden Satu Data Indonesia: Upaya Konkret Pemerintah Merangkul Publik dalam Proses Pembuatan Kebijaka*n from http://opengovindonesia.org/news/230 forum-konsultasi-publik-rancangan-peraturan-presiden-satu-data-indonesia-upaya-konkret-pemerintah-merangkul-publik-dalam-proses-pembuatan-kebijakan

Open Definition. (n.d). *Open Definition*. Open Knowledge International, from http:// opendefinition.org/

Saragih, B. B. (2013). *SKKMigas scandal could hit ailing Democratic Party hard*. Jakarta Post, from http://www.thejakartapost.com/news/2013/08/20/ skkmigas-scandal-could-hit-ailing-democratic-party-hard.html

Tashandra, N. (2016). *ICW: Sepanjang Tahun 2015, Anggaran Negara 134 Kali Dikorupsi*. Kompas. Retrieved from http://nasional.kompas.com/ read/2016/02/24/17044021/ICW.Sepanjang.Tahun.2015.Anggaran. Negara.134.Kali.Dikorupsi

World Bank. (2017). *World Bank Support for Open Data 2012-2017*: World Bank.

Demographic Bonus for Indonesia: Challenges and Policy Implications of Promoting Universal Health Coverage

Sidayu Ariteja[1]
Ministry of National Development Planning/BAPPENAS

Abstract

Indonesia has been promoting Universal Health Coverage (UHC) since 2014 as targeted in the national development plan document. Indonesia has also entered the stage of demographic bonus that could enhance the benefit of social welfare. Starting from the idea of demographic bonus and the campaign of accelerating UHC in Indonesia, this paper tries to answer question of how demographic dividend affects the promotion of UHC declared by the government of Indonesia. Then, this paper analysis the effects of demographic bonus based on two specific policies, supply side policy and demand side policy. The results of the analysis might not directly relate to the issue of demographic bonus. However, it could recommend several suggestions which could deal with the opportunity of demographic bonus. This paper is limited as it only based on some simple calculations on meeting the needs and the gaps on UHC.

Keywords: Indonesia, Universal Health Coverage, and Demographic Bonus

[1] The author is a Planner Staff at Directorate of Health and Community Nutrition, Ministry of National Development Planning/ Bappenas. Email address: sidayu.ariteja@bappenas.go.id

Demographic Bonus for Indonesia: Challenges and Policy Implications of Promoting Universal Health Coverage

Sidayu Ariteja, BAPPENAS

I. Introduction

Indonesia has been promoting Universal Health Coverage (UHC) since 2014. After enacting Law No.40/2004 on National Social Security System, the government of Indonesia expects that there would be a full UHC by 2019. As targeted on Medium-term National Development Plan 2015-2019 document, the first step was an establishment of a special agency which is responsible for conducting an integrated national health insurance (named as BPJS Kesehatan) in January 2014. However, several challenges have been faced by governments (central and local governments). Firstly, there is double-burden problem in providing health care facility. In total number, there are challenges to develop the health care infrastructure nationwide. There are also development gaps and inequalities in providing health care facility: between urban-rural areas, western-eastern part regions, and Java island-non-Java islands. Secondly, in the view of national health insurance memberships, the government has to conduct a proper policy to increase the citizen's awareness for joining the program, especially in informal sectors. Based on the data, the percentage of national memberships of national health insurance was still 71.25 per cent, equal to more than 186 million people[2]. From that rate, most of them which are equal to 92.3 million people (49.4 per cent) was fully subsidized by the government in paying the special premium since they belong to the social-assistance recipients program.

Several demographic experts say that Indonesia has been entering a phase that is called "demographic bonus" (or "demographic dividend"). This population's changing age structure could be a catalyst to boost economic growth as well as enhance social welfare. Demographic bonus would open a" window of opportunity" which sometimes might start to close[3]. This stage might bring benefit for the country. In the federal system nations like the United States (US) and Brazil, this circumstance decreased the burden of funding for state and local governments[4]. Lee and Mason (2011) said that in many economies that have experienced demographic dividend, funding of public education has been maintained or increased by allowing expanded enrollment and increased investment per student. Giving a further example, the demographic bonus effect on the post-war Japanese economy was essential for boosting their remarkable economic growth[5]. For China, the labor force that continually increased because of high fertility rate combined with the decline of mortality lead to demographic dividend, but favorable age structure could not guarantee the "harvest" of demographic dividend. It had to be combined with other factors[6]. Based on the arguments above, Indonesia needs to be able to convert this window opportunity into real benefits, not letting it changes into opportunity cost.

Demographic bonus might has benefit to the promotion of UHC in Indonesia. A young population structure might provide favorable effects for establishing UHC, because it could minimize the transfer of income from the young people to the

[2] Based on data from BPJS Kesehatan, as 1 December 2017

[3] Hayes, A., D. Setyonaluri. 2015. *"Taking Advantage of the Demographic Dividend in Indonesia: A Brief Introduction to Theory and Practice"*. UNFPA.

[4] Lee, R., A. Mason. 2011. *"Population Aging and Generational Economy: A Global Perspective"*. Edward Elgar Publishing Limited.

[5] Ogawa, N., M. Kondo and R. Matsukura. 2005. *"Japan's Transition from the Demographic Bonus to Demographic Onus"*. Asian Population Studies, 1:2, 207-226, DOI: 10.1080/17441730500317451.

[6] Peng, X., C. Yuan. 2005. *"Harvesting the Demographic Bonus"*. Asian Population Studies, 1:2, 189-205, DOI: 10.1080/17441730500317329.

elderly people through social security program conducted by the government[7]. In addition, because of the pension program would not matured yet as well as a low portion expenditure of health care for elderly, the government might tend to have more fiscal space to provide a proper resources to enhance their UHC. Like other developing countries, Indonesia has limited government budget since they need to develop the other fundamental aspects like infrastructures which need a lot of resource allocations. Thus, the favorable fiscal space affected by "demographic dividend" could be beneficial for the government, in terms of UHC program. In case of Indonesia, the government has to fully finance (paying the premium) of population identified as social-assistance recipient groups which contain of poor people and other economically minority groups. On the other hand, the government also faces the problems of unequal development in health sector which affect the campaign of UHC. Development inequalities in health sector have become one of major challenges for central and local governments in recent years. These inequalities could be between western-eastern parts of Indonesia as well as urban-rural areas, and happened in developing health care infrastructures with its health human resources.

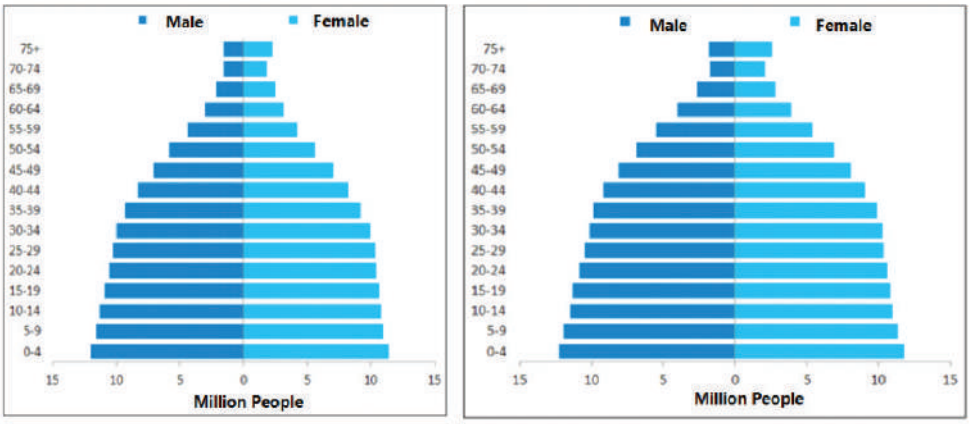
Starting from the idea of demographic bonus and the campaign of accelerating UHC in Indonesia, this paper would try to answer the question of how demographic dividend affects the promotion of UHC declared by the government of Indonesia. Looking at the main purpose of the paper, this paper would analysis the effects based on two specific policies, supply side policy and demand side policy. On one perspective, supply side policy means analyzing effects of demographic bonus on how the government provides the health care infrastructures. On the other view, demand side policy means observing the effects of demographic bonus on how the government finance the premium of the national health insurance. The limitation of this paper is that the analysis of the paper was only be based on the simple calculation on meeting the needs and the gaps on UHC and particular indicators of health care infrastructure in order to react with the issue of demographic dividend in the view of government budgeting. The analysis was mainly be based on the official data provided by the government, such as official population projection and health profile of Indonesia.

II. Literature Review: Demographic Bonus

Indonesia is a home for more than 237 million[8] people, making this country presently the fourth most populous country in the world after China, India, and the US. According to the population projection by the UN, Indonesia would be eighth in the list of countries contributing to the population growth by 2050. According to the opinion of several experts, because of the successful past policy that made the fertility and mortality rates decrease, today Indonesia's population structure has 28 per cent population aged below 15 years old, 8 per cent people aged 60 years old and more, and 64 per cent population aged between 15 and 60 years old[9]. The composition of age is meant as "demographic bonus". Figure 1 shows the age structure of Indonesia's population in 2010 and 2015 based on 2010 Population Census.

[7] Oshio T. et.al. 2015. "The Economic Impact and Challenges of Universal Health Coverage in Japan". Global Health Working Group for the 2016 G7 Summit, December 2015.
[8] Based on the 2010 Population Census.
[9] Based on the 2010 Population Census.

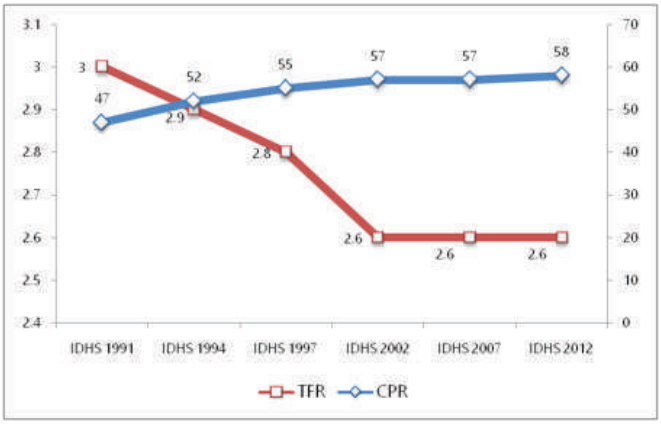
Figure 1. *Indonesia's Population Pyramid, 2010 and 2015*



Source: the Indonesia Population Census 2010 and Official Population Projection based on Population Census 2010

One of possible explanation about the reason of demographic dividend is that the declining of total fertility rate (TFR) because of increasing trend of contraceptive prevalence rate (CPR). Figure 2 describes the relationship between TFR and CPR. Based on the particular data, at least, it might be assumed that there is a negative relationship between TFR and CPR. It could be possible because the growing use of contraceptive tools might decrease the fertility rate. It might be caused by an obligatory policy about family planning in the past. It was well known as "2-Child Family Norm" (in Indonesian language, "2 anak cukup") program. Since the establishment of the official family planning board, which is a direct responsible to the President, in 1971, Indonesia had have a special institution that coordinates and manages family planning program in all sectors in order to control the fertility rate. Although it had much more power during Soeharto's administration (1965-1998) because it had integrated family planning policy including a proper budgeting allocation, now this institution (named as National Coordinating Agency for Family Planning or BKKBN) still has the function of coordinating family planning program that might maintain TFR.

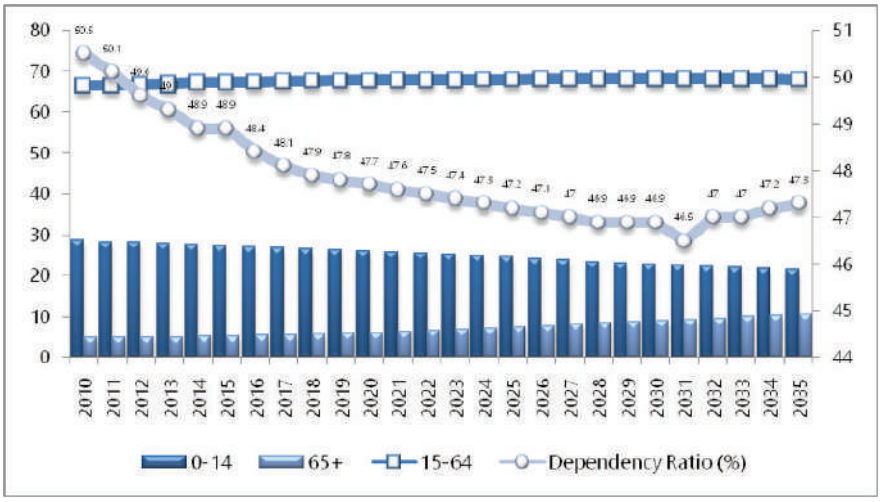
Figure 2. *Total Fertility Rate (TFR) and Contraceptive Prevalence Rate (CPR), 1991 - 2012*



Source: Central Agency for Statistics of Republic of Indonesia, accessed in February 2017

As a result, the dependency ratio would have a downward trend, and after 2011, "the window of opportunity" would open. As described in Figure 3, the lowest dependency ratios period would come between 2028 and 2031. Then, the upward trend would come after 2033 until "the window of opportunity" would close. This figure is based on the official population projection released by the government in 2013, which is projected using the Population Census in 2010.

Figure 3. *Population Projection by Age and Dependency Ratio, 2010 - 2035*



Source: the Indonesia Population Projection 2010 - 2035, 2013

III. Methodology: Demographic Bonus and the Promotion of Universal Health Coverage

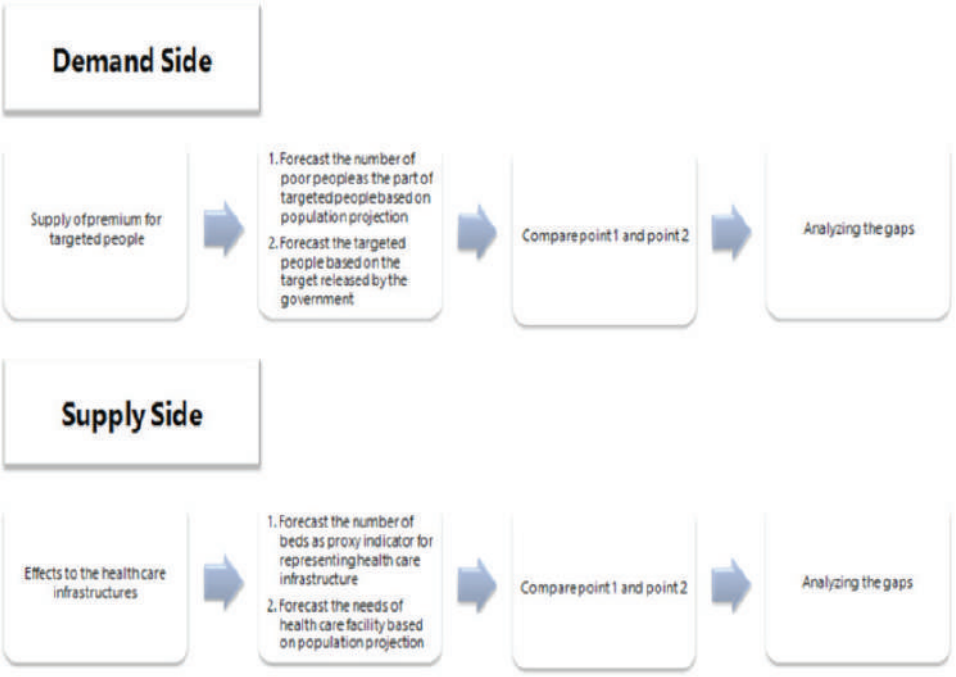
Correlating to the government program which is enhancing national health insurance to promote UHC, demographic bonus could be an interesting issue to be observed. In one way, it could be a good opportunity for the government since most of the people are in working age. It is paramount to increase the memberships of national health insurance (NHI) because it is targeted that 95 per cent of the population have to be covered by NHI by 2019[10]. In the other way, there could be a challenge for the government since the higher portion of working age means there would be more people that need social-assistance premium from the government[11]. Another issue is about the inequalities in health care facilities supporting NHI. Of course, the availabilities of the health care facilities could be an essential factor to promote UHC.

Considering several factors above, the analysis would be classified into two sides: demand side and supply side. This analysis emphasizes on the perspective of government budgeting, so it would not cover the observation of membership issue that categorized as self-financed members. Figure 4 shows the framework of the analysis.

[10] Based on Medium-term National Development Plan of 2015 - 2019.

[11] National Health Insurance (NHI) program in Indonesia is divided into 2 types of premium, fully-financed by the government and self-financed. In case of fully-financed class, the government would pay the premium of the people included as social-assistance recipient (in Indonesian language, "Penerima Bantuan Iuran"). This targeted people would be assigned by the government.

Figure 4. *Analysis's Framework*



Source: author, 2017

However, this analysis would be based on several scenarios and assumptions. In case of demand side, the scenarios would be divided into three types: no-growth scenario[12], upward growth scenario[13], and downward growth scenario[14]. For the supply side, there would be three scenarios as well: no-growth scenario[15], ordinary growth scenario[16], and optimistic growth[17]. The first assumption applied in the analysis is that there is no huge economic shocks that might significantly influence the government budget. The second assumption is that analysis would be applied every five years for considering the cohort. Last assumption is that the poverty rate would be projected as the value in whole population, it would not be specified based

[12] No-growth scenario means that the percentage would be the same as the nearest year. For forecasting the number of poor people, 10.7 per cent is used in the analysis because this ratio represents the ratio of 2016 (nearest observed data). For forecasting the targeted people (PBI), 40 per cent is used in the analysis because this percentage represents the target which is observed by the government (Bappenas) to achieve the target of NHI memberships of 2019.

[13] Upward-growth scenario means that there would be an increased trend of particular observations. For forecasting the number of poor people, 1 per cent per 5 years is used in the analysis because this ratio represents the average difference of the number of poor people in the last 5 years (2011 - 2016). For forecasting the targeted people (PBI), 5 per cent per 5 years is used in the analysis since this percentage represents the average of difference of the number PBI covered estimating by the government to reach the target in 2019 (95 per cent of memberships).

[14] Downward-growth scenario means that there would a decreased trend of particular observations. The percentage that would be used is the same with upward-growth scenario.

[15] No-growth scenario means that the number of beds ratio and the health human resources ratio would be the same with the nearest data (2015). For forecasting the number of beds ratio, the ratio of 1.21 beds per 1,000 population is used because this ratio represents the ratio of the nearest data (2015). Using the same data of 2015, the number of doctors and nurses assumed that it would be the same with 2015.

[16] Ordinary growth scenario means that there would be a similar increased trend of particular observations with the last 5 years data. For the number of beds ratio growth, it would use 1 per cent per 5 years since it was average growth in last 5 years (2010 - 2015). For the number of health human resources, it would use the same assumption of number of beds ratio, which is 2.5 per cent per year.

[17] Optimistic growth scenario is simple based on the realistic assumption of the author. For number of beds ratio growth would be used the growth of 5 per cent every 5 years. For the number of health human resources, it would use a very optimistic value, which is 10 per cent per year.

on age structure[18]. The limitation of the analysis is that there is no analysis about inequalities among provinces (sub-national), especially in the supply side analysis.

IV. Analysis

4.1 Demand Side

Table 1 shows the result of gap analysis between the forecast of the number of poor people and the forecast of the number of targeted people. Targeted people contains of poor people and other minority groups in the society requiring financial supports from the government to pay the premium of NHI. Thus, the poor people are the main part of targeted people. Because of that reason, it is important to forecast the number of poor people to guarantee the coverage of government program.

Table 1. *The Results of Gap Analysis of Demand Side*

Year	2020	2025	2030	2035
No-growth Scenario (in thousand people)	29,004.10	30,476.70	31,715.35	32,704.81
Upward Growth Scenario (in thousand people)	29,004.10	33,324.99	37,643.45	41,874.38
Downward Growth Scenario (in thousand people)	29,004.10	27,628.41	25,787.24	23,535.23

Based on table above, the forecast says that the government has ability to cover number of poor people as the part of targeted people in all scenarios. There might be a bigger space for government in order to cover the minority groups. In this demand side, there would be no burden for the government to promote UHC. Relating to the demographic bonus, there might be no direct correlation regarding to covering the poor people since the government assigns the target does not based on the age structure, but it is based on poverty line.

Although there might be no burden for the government to cover the premium for poor people, there is still challenge for the government, relating to the demographic bonus. As there is a big portion of working age in the population, there might be a lot of potential in increasing the memberships of self-financed premium. As developing nation, most of workers in Indonesia work in informal sector that might not have awareness to join the NHI.

4.2 Supply Side

Table 2 describes the results of gap analysis between needs[19] and forecast of the number of beds ratio[20] in Indonesia. Based on the analysis, there are no spaces for the government in all scenarios to fulfill the needs of people. It could be argued that since there were a lot of priorities for the government in funding the developments, the government could not fully focus on enhancing the health care facilities. As the result, there were a lot of gaps in health care infrastructures. In the other words, there is a burden of government in term of budgeting allocations.

[18] This assumption is based on the government policy that the number of poor people as well as targeted people (PBI) is officially assigned by the government. This value is based on the whole population, it does not represent age structure of the population.
[19] The needs are based on the ratio of average OECD countries in 2013 because there is no clear standard of the ratio of number of beds from World Health Organization (WHO).
[20] The number of beds ratio per 1,000 people is used as the proxy of health care infrastructures. It could be used as proxy since the number of beds might represent the readiness indicator of the supply side in order to support NHI.

Table 2. *The Results of Gap Analysis of the Number of Beds Ratio*

Year	2020	2025	2030	2035
No-growth Scenario	(1,027,341.66)	(1,096,154.66)	(1,154,035.16)	(1,200,271.66)
Ordinary Growth Scenario	(1,024,061.75)	(1,089,562.05)	(1,144,096.72)	(1,186,953.93)
Optimistic Growth Scenario	(1,010,942.14)	(1,062,535.65)	(1,102,335.68)	(1,129,587.69)

Similarly, there would be also gaps for the government to provide health workforces. In this case, this paper examines the ratio of doctors and nurses (per 1,000 people). Table 3 shows the results of gap analysis on health human resources. There would be many gaps (all the values are minus) in all scenarios to fulfill the proper standard. The limited budget allocations could be one of the reasons. In addition, the inequalities in providing health workforces of local government might also be other reasons. After Indonesia transformed to decentralization system in 2001[21], there are a lot of problems regarding to health human resources distribution. It might lead to the ratio in general term.

Table 3. *The Results of Gap Analysis of the Health Human Resource Ratios*

Year	2020	2025	2030	2035
No-growth Scenario				
Doctors	(805,644.12)	(851,060.70)	(889,261.83)	(919,777.92)
Nurses	(2,242,794.24)	(2,368,033.90)	(2,473,376.41)	(2,557,526.84)
Ordinary Growth Scenario				
Doctors	(794,534.75)	(827,453.28)	(851,594.11)	(866,292.35)
Nurses	(2,214,805.49)	(2,308,557.81)	(2,378,477.05)	(2,422,776.32)
Optimistic Growth Scenario				
Doctors	(761,206.62)	(739,966.95)	(678,183.71)	(558,723.23)
Nurses	(2,130,839.24)	(2,088,146.40)	(1,941,590.16)	1,647,892.47)

V. Conclusions and Recommendation

5.1 Conclusions

Demographic bonus could bring advantages or disadvantages for the government relating to the promotion of universal health coverage (UHC). The big portion of workforces might lead to the increase of financial ability of the government through enhancing the economic effects. On the other hand, it might push the government budget by increasing number of targeted people which its premiums are fully financed by the government.

The results of the analysis do not directly relate to the opportunity of demographic dividend since the characteristic of the national health insurance (NHI) is quietly different with the other NHIs. In the perspective of demand side, the government would be able to cover the premium of poor people. Because of the targeted people is assigned by a specific calculation, there is no direct relationship with the demographic dividend. In the perspective of supply side, there are a lot of gaps in proving health care infrastructures as well as health workforces. It might be similar with the demand side that there is no direct effects of demographic

[21] Based on Law No.32/2004 about Local Government.

dividend on the health care infrastructures and health workforces in the view of government budgeting.

However, there several recommendations that could be suggested to affect the promotion of UHC relating to the demographic bonus. In case of demand side, it is essential for government to develop a perfect campaign in order to boost the memberships of self-financed premium. On the supply side, developing mutual relationships with the private sector and building a proper strategy to persuade the workforces to become health human resources could be possible recommendations.

5.2 Policy Recommendations

Based on analyses presented above, we recommend:

1. It is essential for the government to much more focus on the self-financed premium. This thanks to a lot of young working age people contributed by the demographic dividend.
2. It is important for the government to develop a proper campaign strategy in order to enhance the self-finance memberships of NHI facing the window of opportunity.
3. Persuade private sectors to fulfill the gaps of health infrastructure. This is due to wide gaps between health care infrastructures and health workforces, and because of the growing ability of the private sectors in providing such services.
4. Develop a perfect policy to persuade the benefit of abundant workforce resources for being health workers, for example by providing scholarships or incentives to young people to fulfill the gaps of health workforces in remote areas.

References

Social Security Administrator for Health of Republic Indonesia. 2017. *Memberships of NHI*.

Central Agency for Statistics of Republic Indonesia. 2012. *Indonesia Population Census 2010*.

Central Agency for Statistics of Republic Indonesia et.al. 2013. *Indonesia Population Projection 2010 – 2035*.

Hayes, A., D. Setyonaluri. 2015. *Taking Advantage of the Demographic Dividend in Indonesia: A Brief Introduction to Theory and Practice*. United Nation Population Fund.

Lee, R., A. Mason. 2011. *Population Aging and Generational Economy: A Global Perspective*. Edward Elgar Publishing Limited.

Ministry of Health of Republic Indonesia. 2016. *Indonesia Health Profile of 2015*.

Ministry of National Development Planning/Bappenas. 2014. *Indonesia Medium term National Development Plan of 2015 – 2019*.

Ogawa, N., M. Kondo and R. Matsukura. 2005. *Japan's Transition from the Demographic Bonus to Demographic Onus*. Asian Population Studies, 1:2, 207-226, DOI: 10.1080/17441730500317451.

Oshio T. et.al. 2015. *The Economic Impact and Challenges of Universal Health Coverage in Japan*. Global Health Working Group for the 2016 G7 Summit, December 2015.

Peng, X., C. Yuan. 2005. *Harvesting the Demographic Bonus*. Asian Population Studies, 1:2, 189-205, DOI: 10.1080/17441730500317329.

Call for Papers:
Papers for Jurnal Perencanaan Pembangunan
(The Indonesian Journal of Development Planning - JPP)

Jurnal Perencanaan Pembangunan **(The Indonesian Journal of Development Planning - JPP)** is a journal published by the Ministry of National Development Planning/National Development Planning Agency (BAPPENAS) since 2017 through Decree No. Kep.33 / M.PPN / HK / 03/2017.

This journal initially was published in 1990 by the Minister of Development Planning/Head of Bappenas at that time -Professor Saleh Afif- with the name of ***Buletin Perencanaan Pembangunan*** **(Bulletin of Development Planning - BPP)** published in 1990 and 1991. BPP had been vacuum for about 3 years. Then in 1994, the Minister, Professor Ginanjar Kartasasmita revived this bulletin under the name ***Majalah Perencanaan Pembangunan*** **(Magazine of Development Planning - MPP)**. Throughout the year 1994-2016 MPP always published regularly 3 times a year.

In the period of 2015-2017, the Minister Andrinof Chaniago, Sofyan Djalil, and Bambang S Brodjonegoro encouraged MPP to transform into a journal. Then in the year 2017 MPP officially become Jurnal Perencanaan Pembangunan (Journal of Development Planning - JPP).

JPP will periodically present papers related to development policy in Indonesia, linking academic and scientific knowledge with public policy. JPP takes a position as one of bridging knowledge to policy tools. **All development process, from the planning, implementing, monitoring, and policy evaluation (ex ante and ex post) phases** are the subject of JPP. In more detail, the following topics are divided into the following groupings:

- Macroeconomic policies: macroeconomic, fiscal, budgetary, financing, monetary, trade, industry, investment, overseas cooperation, and banking.
- Regional autonomy and development policies: regional autonomy, regional development, underdeveloped regions, border areas, outlying areas, rural areas, transmigration areas, urban development, regional government capacity development, and inter-regional cooperation.
- Infrastructure policies: energy, land transportation, sea transportation, air transportation, railways, water supply, housing and settlements, telecommunications, sanitations, drainages, and irrigations.
- Natural resource and environmental policies: non-renewable natural resources, renewable natural resources, environment, forestry, agriculture, marine, fisheries, and nature tourism.
- Human resources policies: education, health, youth, sports, culture, science, and technology.
- Law, political, defense, and security policies: foreign policy, domestic politics, defense, security, law, regulation and legislation, state administration and institutions.
- Policies for strategic issues: poverty alleviation, climate change, unemployment, labor, social security, and population.

JPP is an open media for academics, researchers and policy practitioners interested in delivering research and thought-related results on actual issues, both nationally and internationally. JPP is also focusing on what governance level to do, whether central (national), provincial, or district and city levels.

JPP receives paper/article in scientific category, either a full paper or a summary of the research, criteria as follows:

1. The manuscript shall be the original work of the author (individual or group)
2. The manuscript has not been published and is not being sent to other publishers at the same time (a statement form attached). The copyright of the received text remains the author's rights. Manuscripts submitted and considered eligible shall be published by JPP, or other media published by JPP.

3. Script systematics refers to scientific rules, some of which may be references are: (1) introduction and background of the problem; (2) Methodology; (3) Literature Review or Literature Review; (4) Problem Discussion; (5) Conclusions and Policy Recommendations; (5) References or References.
4. Here are the detailed limits of the manuscript:
   - The manuscript is written in Indonesian or English, sent in the form of a document (docs or rtf).
   - Maximum 10000 words or 20 A4 pages with 1.5 spaces (including attachments).
   - Times New Roman Letters 12.
   - Each manuscript must be accompanied by an abstraction, a maximum of 250 words or a half (1/2) of A4 size page, accompanied by a keyword.
   - For Indonesian texts must include English title, abstract and keywords.
   - Each table and picture must be in black and white, if the color should be readable in a black and white printed state.
   - For reference writing, footnotes and side notes (sidenote) follow the rules of academic writing. As a reference can be through the website: http://www.scientificstyleandformat.org/Tools/SSF-Citation-Quick-Guide.html

     From Journals:

     For articles with 1-2 authors, names are separated by a comma in the end reference but by "and" in the in-text reference.
     - Author(s). Date. Article title. Journal title. Volume(issue):location.
     - Mazan MR, Hoffman AM. 2001. Effects of aerosolized albuterol on physiologic responses to exercise in standardbreds. Am J Vet Res. 62(11):1812–1817.

     For articles with 3 to 10 authors, list all authors in the end reference; in the in-text reference, list only the first, followed by "et al."
     - Smart N, Fang ZY, Marwick TH. 2003. A practical guide to exercise training for heart failure patients. J Card Fail. 9(1):49–58.

     From Books:
     - Author(s). Date. Title. Edition. Place of publication: publisher. Extent. Notes.
     - Leboffe MJ, Pierce BE. 2010. Microbiology: laboratory theory and application. Englewood (CO): Morton Publishing Company.
5. Manuscript accompanied by curriculum vitae attachment (CV).
6. Reviews (Peer Review). Manuscripts submitted to JPP and accepted for publication shall be reviewed by at least 2 (two) reviewers.
7. Frequency of Publication
   - JPP is planned to be published 3 times a year or trimesterly.
   - Outside of regular schedules, JPP will publish in a special edition (special edition).
8. The manuscript may be sent to the Secretariat of the Journal of Development Planning through electronic mail jpp@bappenas.go.id and jpp.bappenas@gmail.com.

Secretariat **Jurnal Perencanaan Pembangunan**
(Journal of Development Planning - JPP) - BAPPENAS
Jl. Taman Suropati No. 2 Menteng, Central Jakarta, Indonesia 10310

Ministry of National Development Planning/BAPPENAS
Jl. Taman Suropati No. 2 Menteng, Central Jakarta, Indonesia 10310