



Republic of Indonesia

# INDONESIA NATIONAL REPORT FOR HABITAT III

**Final Version  
January 2016**



Prepared by :  
Indonesia Habitat National Team  
Under Supervision of Ministry of Public Works and Housing  
Republic of Indonesia



## FOREWORD



Indonesia has been actively participating in the United Nations activities on housing and settlements development since the First Habitat Conference on Settlement in Vancouver in 1976 and the Second Habitat Conference in Istanbul in 1996. In view of that, Indonesia has committed to implement the Vancouver Declaration, Istanbul Declaration, and Habitat Agenda.

Indonesia will serve as a leader in Asia Pacific Region to prepare Habitat III Conference, which shall be held in Quito in October 2016. While in July 2016, Indonesia will host the Asia Pacific Regional Preparatory Meeting in Surabaya. In respect to Habitat III Conference, Indonesia has prepared a draft of the Indonesia National Report by involving all relevant stakeholders from the government, academics, practitioners, and observers. This report shall be submitted to the UN Habitat.

As a member of Habitat III Bureau, Indonesia works together with the Habitat III Secretariat to discuss the conference preparations, and hosts a series of international and multi-stakeholder events in order to collect inputs for the New Urban Agenda. Some of our prominent colleagues are currently serving as experts in the Habitat III Policy Units, and were involved in the preparation of The State of Asian and Pacific Cities 2015 published mutually by UN Habitat and UN ESCAP. Indonesia is fully committed to advance community empowerment through the Regional Center for Community Empowerment in Housing and Urban Development (RCCEHUD), and to serve as a member of the 5<sup>th</sup> Bureau of the Asia Pacific Ministerial Conference for Housing and Urban Development (APMCHUD V 2014-2016), President of the Eastern Regional Organization for Planning and Human Settlements (EAROPH 2014-2016).

Based on the guidelines of UN Habitat, Indonesia National Report comprise of six topics, namely: (1) Urban Demographics; (2) Land and Urban planning; (3) Environment and Urbanization; (4) Governance and Institutional; (5) Urban Economics; (6) Housing and Basic Services. In addition to describing Indonesia's achievement in each of the aforesaid six topics, the Indonesia National Report also identifies challenges and future agendas regarding the sustainable settlements and urban development.

We look forward to participating constructively in the Habitat III Conference, and hosting the Third Preparatory Committee Meeting (PrepCom3) for Habitat III in Surabaya in July 2016. The meeting will be the very last global preparatory meeting before the Habitat III Conference in Quito, and we do hope that we are of the same mind on key issues of the New Urban Agenda.

Minister for Public Works and Housing

A handwritten signature in black ink, appearing to read 'M. Basuki Hadimuljono'.

**M. Basuki Hadimuljono**



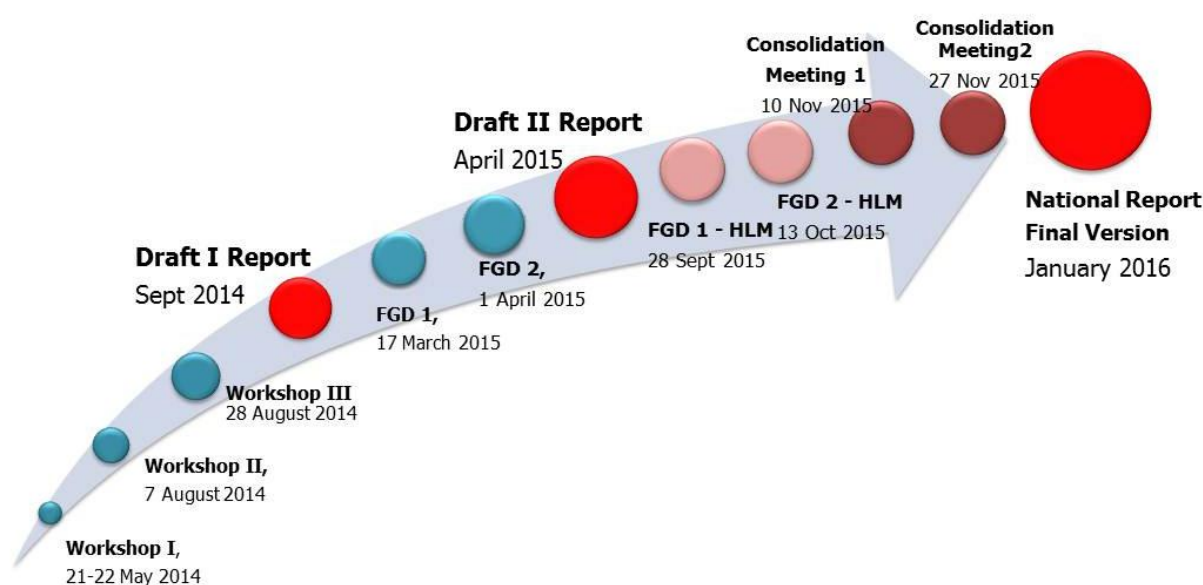


## PREFACE

Approaching the conference on Habitat III in 2016, each UN country member has to prepare a national report reporting their achievement of the Habitat Agenda, which will then be used as inputs for formulating the next agenda of Habitat III. This national report consists of implementation of the Habitat Agenda, issues and challenges faced by each member country, and thoughts that contribute towards the future agenda.

UN Habitat provided the guideline and format for the writing of the national reports that comprise six topics, thirty issues and twelve indicators. The sixth topics are (1) Urban Demographic; (2) Land and Urban Planning, (3) Environment and Urbanization; (4) Urban Governance and Legislation; (5) Urban Economy, and (6) Housing and Basic Services. This national report would not reflect the commitment from the head of the Nation, as was presented as the documents from Habitat Agenda. This new format is seen as the elaboration and the reformulation of the commitment of Habitat Agenda, specifically on adequate shelter for all and sustainable human settlement. The shift from the field of housing and settlements towards sustainable urbanization is in line with the transformation at the world scale. The world has become more urbanized, and generates its own problems and challenges for the future existence of the human settlements. UN Habitat views that the concentration of human settlements for the next two decades is sustainable urbanization.

The process of writing Indonesia's National Report on the Implementation of the Habitat Agenda began early 2014. A national team was formed, led by the Ministry of Public Works. The team consisted of a steering committee, panel of experts and consolidating team to edit and finalize the report. In 2014, three workshops were held prior to the submission of the first draft of the National Report in September 2014. The workshops were held in three different cities to allow wider participation of local experts and stakeholders. The workshops were aimed to identify progress of the implementation of the Habitat Agenda, key issues and challenges for future urban development in the six themes.



### Actions Taken in Drafting Indonesia National Report

A series of focused group discussions were held during 2015, involving the consolidation team (as major editors) and inviting prominent experts to gain inputs on the draft and finalize the report. The team decided to separate the issues on future challenges and new urban agenda from the 6 theme chapters, into separate chapters. These two chapters are most important as they will be inputs for the New Urban Agenda. In other side we have encountered challenges and problems in the process of writing National Report. One major problem in writing this report were lack of data as requested in the list of indicators. We recommend that the New Urban Agenda will be supported by clear indicators that can be adapted at the national and local level. Another problem is that urbanization is multi-sector and national policies and strategies on urban issues in Indonesia are by under different Ministries. This requires stronger efforts for coordination and compilation of the report.

Our special thanks to the following institutions for their continuous support during the process of writing the National Report: Ministry of Public Works and Housing, National Planning and Development Agency (Bappenas), Ministry of Foreign Affairs, Ministry of Home Affairs, Statistics Indonesia, The Urban and Regional Development Institute (URDI), Institut Teknologi Sepuluh November (ITS), Institut Teknologi Bandung (ITB), Universitas Indonesia, Universitas Diponegoro, Universitas Gadjah Mada (UGM), Universitas Nasional Sebelas Maret (UNS), Local Government of Surakarta, Local Government of Surabaya, Local Government of DI Yogyakarta, Indonesian Association of Planners (IAP), Indonesian Association of Architects (IAI), EAROPH Indonesia, Habitat Agenda Partners Indonesia (HAPI), Kemitraan Habitat Indonesia (Habitat Partnership), Habitat Indonesia National Secretariat and other individuals/institutions whose name we can't mention specifically.

Jakarta, January 2016.

Editing Team  
Ministry of Public Works and Housing

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# CHAPTER 1 INTRODUCTION

## 1.1 Background

Approaching the conference on Habitat III in 2016, each UN country member has to prepare the national report about their achievement of the Habitat II agenda, which will then be used as inputs for formulating the next agenda of Habitat III. This national report consists of implementation of the Habitat II agenda, issues and challenges faced by each member country, and thoughts that contribute towards the future agenda.

UN Habitat provides a guideline and format for the writing of the national reports that comprise six topics, thirty issues and twelve indicators. The sixth topics are about issues, challenges and agenda for the future agenda, which are: (1) Urban Demography; (2) Land and Urban Planning, (3) Environment and Urbanization; (4) Urban Governance and Legislation; (5) Urban Economy, and (6) Housing and Basic Services. This national report would not reflect the commitment from the head of the Nation, as was presented as the documents from Habitat II agenda. This new format is seen as the elaboration and the reformulation of the commitment of Habitat II agenda, specifically on adequate shelter for all and sustainable human settlement. The shift from the field of housing and settlements toward urbanization is in line with the transformation at the world scale. The world has become more urbanized, and generates its own problems and challenges for the future existence of the human settlements. UN Habitat views that the concentration of human settlements for the next two decades is sustainable urbanization.

## 1.2 Adoption of Habitat II Agenda in Indonesian Development Plans 1996-2016

The government of Indonesia views that the Habitat II agenda in 1996 has been adopted and included in the development policies and strategies. It is at the times was implemented through the sixth-term of Five Year Development Plans (Repelita VI) and was about to be included in the formulation of the Seventh term of Five Year Development Plan (Repelita VII). In Repelita VII, efforts to specifically addressed the integration of the The Habitat II Agenda 21 into the development plans was initiated when the 1998 Reform in Indonesia abruptly changed the course of Repelita. The National Constitution was amended and the Development Plans was restructured. The position and integration of the Habitat II Agenda was reformulated but not yet fully integrated into the new development plans. As the priorities on development policies and strategies shifted, a comprehensive overview of past policies has not been executed, as there are many pressing issues of socio-political-economic changes, leading to policy formulations that are adhoc and incremental in nature.

## 1.3 The Amendment of the Constitution

The institution that reformulated the constitutions (UUD 45) has worked for two years, from 1999 to 2001, which resulted in the amended constitution being ratified in 2001 as the new national commitment toward national governance. The essence of the amendment is: a) to state that the Republic of Indonesia is conducted by rule of law; b) to strengthen and expand decentralization in the execution of the national governance; c) to transform the foundation of nation-building toward democracy and that respect the human rights.

Referring to the amended constitution, the Indonesian society has to advance on the issues and challenges on laws in order to reflect new values, and orientation towards decentralization, democracy, human rights, diversity, and pressure from globalization and other incremental changes that took place for the last six years.

## 1.4 Progress of Laws

To instigate the nation toward abiding to the rule of law, there are many new regulations installed in order to advance the amended constitution towards its implementation. Newly installed Laws, and renewed Laws are enacted in order to replace *ad-hoc*, reactive policies introduced during the vacuum periods. Laws enacted after the reform of 1998 that influence and reshape the governance of urbanization and their implementations, among others are:

*Laws on Local Governance.* The laws on local governance have been replaced most often. This indicates that the Government of Indonesia continues to search for the appropriate organizing administrative system of local governance that is suitable for local geographical, demographic and social dimensions. Since the promulgation of the Indonesia nation in 1945, local governance in Indonesia has been regulated through ad-hoc policies. The first Law on local government was ratified in 1948. Since then, in 1957, 1965, and 1974 are the years to which new Laws were introduced to replace the old ones, especially designed to support the socio political systems that were installed in that periods. Between 1974 and 1999, the same Law that support centralization of the governance is the longest executed in the country. Only since 1999, to accommodate the spirit of decentralization, the new Law was ratified, and in fact it was one of the first Laws to be ratified after the Constitutions were amended. The heads of the local governments which was appointed by the central government based on the Law of 1974 was changed to be elected by the people. Local governments, based on the Law of 1974, were executing agents of development plans and policies drawn by the central government. Since 1999, the local governments are encouraged to initiate their development plans and execute them. The Law no 22/1999 on local government promotes decentralization that expands and strengthens the mandate of governance to the local levels in a democratic ways. The Law No 22/1999 on local government was quickly replaced by the Law No 32/2004 on local governance as local governments are recognized as not prepared to execute decentralization as designated by the previous Law. Nonetheless, the Law No 22/2004 on local governance was seen as a transition that reduces the negative excess of the previous Laws. This law rearrange autonomy retained by the central government and delegated to the local level as well as guide the election conducted at the local level. Ten years into its implementation, the law was replaced and splitted into three new laws: Law no 6/2014 on Villages, Law no 22/2014 on Local Election to become Law No 1/2015 Direct Local Election, and Law no 23/2014 on Local Governance. The latest law rearranges, again, power devolution to the local level, with a bigger power devolve to the provincial level and public service provision as the benchmark for successful devolution.

Prior to 1998, the unified nation of Indonesia has 62 urbanized areas that are administratively called cities. Today, there are 93 so-called autonomous cities and one city that are governed as the nation's capital provincial government which consist of five cities and a regency. Before 1998, there 243 cities that are the capital of regencies, today there are 412. Because of their locations and geographical positions in the country, each city has their own contribution, also has their unique problems, challenges that related to their divergent demographic, land issues, environmental, governance, economic, housing and basic services.

*Law on Spatial Arrangement of 2007.* This law replaced the previous Law of 1992 on Spatial Arrangement which regulate spatial allocation and composition for conservation and built up functions. In the era of reform, there are efforts to denote spatial arrangement as a tool for monitoring of spatial implementation. This effort allows for assigning local governments, either regencies or municipalities, to develop into local regulations on spatial planning that are no longer has the style of indicative planning as in spatial planning at the national or provincial levels. The Law has not explicitly regulated

urban management, but justifies allocation of regional resources in a wise and accountable manner, and to ensure toward creating sustainable urban development.

*Law on Balance of National and Regional Public Budget of 2004.* This law regulates sources of local government incomes and public budget allocation especially from the national to the local governments. Various opportunities for economic development and income potentials are drawn legally in the Law.

*Law on the Natural Environment of 2009.* This law is promulgated to replace the similar Law of 1997. The new Law has positioned protection and management of the natural environment, not only as the reactive policies towards pollution control and environmental degradation, but also as ex ante policies and serves as a basis toward development planning. It is expected that this Law will be implemented consistently, thus open possibilities that approaches of environmental services and carrying capacity can determine how urbanization will be managed in the future.

*Law on Housing and Settlements of 2011.* This law replaced the 1992 Law no. 4 on similar aspects. The previous Law was not well implemented as limitation especially on weak institutional arrangement, complication on land allocation and public budgeting. The new Law offers strengthening of the institutions to amalgamation between housing and urban areas in the form of settlement, overcome the complex arrangement of land allocation, and to support funding agencies for housing. This Law also promotes upgrading and emerging of slum areas.

*Law on Public Service of 2009.* This law is derived and elaborated from the Amended constitution on human rights and affirms the responsibility of the government on public services.

*Law on Apartments of 2011.* This law renews the commitment declared in the Law on Apartments of 1987 that regulates the existence of apartments as a part of settlements, and the rights and duties related of the occupants and owners of the apartments. The 2011 Law adds the classification of apartments and its linkage with the public budgeting and financial system.

Aside from the above laws, other laws on technical and institutional arrangement that contribute towards urban management have been initiated, such as the Law on Building Construction of 1982, and the Law on Waste Management of 2008.

## **1.5 The Diversity of Indonesia**

Challenges in conceptualizing and potentially implementing these Laws are the wide arrays of diversity, be it in the demographic dimension, local culture, local habits, ethnic difference and acceptance in Indonesia. Such diversity cannot be separated from the fact that Indonesia as an archipelagic country has a size of 5 million km<sup>2</sup> of which 60 percent is water bodies and the rest are the land. The land is located sparsely within 17,000 islands although only 13,478 islands are registered at the international agencies. Among them, five major islands contribute to the land size of 100,000 km<sup>2</sup>; the rest is located in islands of the size of 20,000 km<sup>2</sup>.

Not only the physical geographical characteristics that define the wide divergence of urban characteristics, the country hosts about 245 million population and is located in areas that have one of the highest biodiversity levels in the world which sustain about 600 local indigenous communities with their varied culture, orientation and development level. However, since 1945 the areas are proclaimed to be a part of unified country called the Republic of Indonesia. There are struggles for existence or

freedom as well as social political in nature that threatens the existence of the country. The demand for unified one continues to be strong.



**Figure 1. 1 Map of Indonesia**

Source: [http://www.nationsonline.org/oneworld/map/indonesia\\_admin\\_map.html](http://www.nationsonline.org/oneworld/map/indonesia_admin_map.html)

How to design and conceptualize rule of law that solidly consolidates divergent orientations, level of development, land and water bodies, with high population number that reside in sparsely located islands and high cultural diversity, will be the main basis for developing future regulation.

## 1.6 Cities as the Gate of Globalization

Far from being functioning in isolation, urban management has to adapt to the 21<sup>st</sup> century globalization which morph into two form. First, the current form of globalization emerges through the concept of economic development based on free flow of trade. This flow will increase the movement of capital, people, goods, information and knowledge. Second, globalization based on solidarity toward improving the quality of life, reduce the disparity and protecting the environment. Various covenants, protocols, agenda, programs, charters and commitments on protecting the environment and human rights are globalizing the ethics and values that influence nation building.

Urbanization is the second agent of the globalization. Facilitated through investment flow, consumption patterns, configuration of urban areas are shaped to support such flows and patterns. Through flow of information and knowledge, intellectual deliberation and partnerships between civil organizations, urbanization becomes the agent of globalization of values and norms. As a result, conflict, screening and competition in globalization begin in urban areas. Varied global events, globalization of solidarity is sternly in conflict with the globalization of free trade.

Competition is a condition and an ability to uncover benefits out of globalization, predominantly in attracting investment. To attract investment thus cannot be easily executed without concern on the screening process that would filter out investment on exploitative and negative impacts.

## 1.7 Regional Development directing Urbanization

Regional Development in Indonesia, was a part of National Development Plans, interpreted as sub national plans<sup>1</sup>. Population reallocation (or transmigration project) as a response to inequal distribution of population in densely-populated Java island, leads to increaseing or creation of urban centres land-abundant outside of Java in 1970s-1980s<sup>2</sup>. This did not counteract higher urbanization level that were experienced in provinces that have more autonomous cities such as North Sumatera, most of Java and Bali, East Kalimantan<sup>3</sup>. Cities, in fact, grew by inmigration rates that contribute to urbanization rate that is higher in these provinces. Employment opportunities, well-developed infrastructure, public service provision are the main factors to such in-migration.

Since 1970s, big scale housing expansion, incremental in nature, has blossomed, initiated by developers. This expansion continued and diverted to its surrounding areas and aimed at various income groups and interests. By the end of 1980s, there are hundreds of housing clusters in Jakarta inhabiting up to hundreds of hectares<sup>4</sup>. Fast growth of these settlement took place incrementally that do not form as integrated clusters of settlements and inefficient for its residents.

Incremental development has been identified since 1970s and Law of Housing and Settlement of 1992 was enacted in order to manage the already built areas which were managed by the governments. The Law never got a chance to be implemented satisfactorily that incremental development intensified to be a part of problems of urbanization at this time. So that a revised and improved Law of Housing and Urban Development was enacted in 2011 that gives more roles to local government and gives a mandate to a single national Ministerial office to coordinate more comprehensive housing and urban development policies nationally. This law has not yet fully applied and hopefully in the near future it can be implemented.

## 1.8 National Policies and Strategies on Urban Development

As the head of the nation began to be elected under the amended Constitution of 1945, so was enacted the Long Term National Development Plan 2005-2025. The goals of the Plan among others is to achieve the fulfillment of the demand of settlement and its supportive basic services for all members of the society, supported by long term housing financial system that is sustainable, efficient and accountable in order to create *cities without slum*. The National government, c.q. Bappenas, prepares National Policies and Strategies for Urban Development (KSPPN) towards Sustainable and Competitive Cities of 2045 for the welfare of the society. KSPPN defines sustainable cities as urban areas are designated, developed, and managed to satisfy the demand of its residents in environmental, social, economic dimensions without sacrificing the sustainability of natural habitat, ecosystem, built environment and social environment.

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<sup>1</sup> Since 2000, the National Five Year Development Plans, has a specific section on spatial allocation of National Development Plans or regional development section.

<sup>2</sup> By 1990s, about 3,3 million people resettled into transmigrated areas in Indonesia. (Adhiati & Bobsien, 2001)

<sup>3</sup> Indonesia experiences higher urbanization level than was predicted, as was presented in by

<sup>4</sup> When the conference of Habitat II took place, Jakarta and its surroundings has housed 26 settlement concentrations, and in other locations there were about 15 settlement concentrations with each size of more than 500 hectares. Cities emerged in the adjacent of Jakarta, are formed as collection of settlement concentrations that create a mosaic, unclear patterns of urban settlement.

Non-legally binding KSPPN does not offer specific framework to deal with managing urbanization especially as independent entities, especially with the nature of migration. Assuming cities as engine of growth, the scale of cities based on population number are to be supported. The so-called autonomous cities which are defined as administratively-delineated municipalities, have the autonomy to manage urban services. Repeating classification of cities based on the number of population, defined by legally binding National Spatial Plan 2008-2028<sup>5</sup>. Small cities are those that is resided by less than 100,000 people, medium cities are occupied by population between 100,000 – 500,000 people. Large cities are where 500,000 to 1,000,000 people live in and metropolitan cities would be inhabited by more than one million population. This classification is not based on particular concepts or local accounts, nor is based on the evolution concept of urban area. It is based on clear separation between urban and rural and is initiated to simplify in policy formulation<sup>6</sup>.

In 2014, about 412 cities that are stated as the capital cities of regencies, and 2,137 cities are a part of capital cities of sub districts, are not analyzed under KSPPN. For 93 autonomous cities and 5 cities belonged to the province of DKI Jakarta, have been analyzed on their sustainability level. The finding is presented in Table 1.1.

**Table 1. 1 Urban Sustainability Index (USI) of Indonesia Cities**

Classification of Autonomous Cities	Factoring Index of Urban Sustainability						USI	Ranking
	Urban Services	Socio-Cultural	Economic	Environment	Urban governance	National Urban System		
Metropolitan	49.14	78.36	58.3	71.82	56.7	52.24	61.09	1
Large	47.64	79.73	54.87	70.4	57.79	47.44	59.65	2
Medium	43.62	81.53	48.67	69.47	49.27	39.16	55.29	3
Small	39.77	80.91	42.59	71.55	45.66	32.82	52.22	4

Source: KSPPN, Bappenas, 2013.

Table 1.1 shows that the factors that least contributes to sustainability of cities are national urban system, followed by urban services, urban economics, urban governance, natural environmental protection. The factors that best contribute toward sustainability of cities are socio cultural aspects. In order to reach ideal urban system, there is a need to expand 2.34 times than what currently is. There is no definitive answer to what is defined as an ideal national urban system, whether it is about the functioning of urban growth poles at the national, regional, local and village levels, or is it about specialized economic zones that encourage urban core to be the engine of economic activities. Urban services also have to increase up to 2.2 times which is potentially more tangible. Meanwhile, socio cultural index only needs 1.25 times increase. KSPPN prioritizes the improvement of urban services which include the transportation system, energy supply, clean water supply, sanitation and solid waste, public health facilities, education facilities. The national urban system is to be strengthened through strategies on internationalization of metropolitan areas, and on small cities to be connected as rural urban linkages. Policies and strategies on KSPPN regulates more on the goals for the future and do not analyze much on the varied experiences, issues and realities of urbanactivitiesin Indonesia, especially after decentralization and human rights concerns enter into the governance of urban areas. Invasion and

<sup>5</sup> National Spatial Plan 2008-2028, is made legal by Government Regulation (PP) No. 26/2008.

<sup>6</sup> Such classification of rural and urban, has been criticized by Peter M Nas (2013).



global business penetration do not come to a halt at the metropolitan cities, but also to rural areas. In the case of natural resources exploitation, global penetration reaches to remote unpopulated areas. Rural urban linkages thus are also about relations between metropolitan and rural areas.

The national report will endeavor to complement KSPPN on issues such as conceptual framework and values to describe the measurement account on sustainable urbanization, empirical evidence that support policies and strategies on urbanization. This national report is about issues, challenges and thought for the future.



## CHAPTER 2 URBAN DEMOGRAPHY

### 2.1 Managing Rapid Urbanization

Indonesia's Central Agency for Statistics (Statistics Indonesia), defines urban areas that is administratively bounded at a village level, but with population density of 5000 people/km<sup>2</sup>, percentage of agricultural households less than 25%, and have at least eight urban amenities. Before 2000, population density, source of income and availability of urban amenities serve as the absolute indicators for defining an urban area. After 2000, the classification is measured by a scoring system<sup>7</sup>. It should be noted that urban classification after 2000 accommodates the two different methods. These statistics methods cannot be used to depict the social and cultural changes occurring from the densification process as well as the shift of economic activity from agriculture to non agricultural sectors. An area can be recognized as urban in accordance to the method above, but retains rural-like social activities.

**Table 2. 1 Total Population and Urban Population in Indonesia 1971-2010**

Year	Total population	Urban Population	Percentage of urban population
1971	119.208.229	17.642.817	14,8
1980	147.490.298	25.663.311	17,4
1990	179.378.946	55.428.094	30,9
2000	206.264.595	87.249.923	42,3
2010	237.641.326	118.345.380	49,8

Source: Statistics Indonesia

The National Development Planning Agency (*Badan Perencanaan Pembangunan Nasional – BAPPENAS*), had made projections on urbanization rate per region and developed an Urban Rural Growth Difference (URGD) indicator, which is used to differentiate the following categories:

- Provinces with high-scoring URGD, which are provinces with discrepancy between urban population growth and rural population growth of 30%;
- Provinces with medium-scoring URGD, which are provinces with discrepancy between urban population growth and rural population growth of 20 - 30%;
- Provinces with low-scoring URGD, which are provinces with discrepancy between urban population growth and rural population growth below 20%

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<sup>7</sup> According to this system rural, an area can be categorized as urban when achieving minimum score of 10. Scoring is based on: population density (score 1-7 for density of 500/km<sup>2</sup> – 8600 km<sup>2</sup>), percentage of agriculture-based households (score 1 – 7 for 70% to 5%); and a score of 1 for every available urban amenities (kindergasten, elementary, secondary schools that are located at least 2.5 km from the village, store or market that is located less than 2 km from the village, movie theatre and hospital at least 5 km form the village, hotel/discotheque, pool lounge, massage lounge/beaut parlour; households using telephone is 8% at mimum; and 90% of households have been connected with electricity

Provinces with high-scoring URGD in 2010 are Riau Islands, West Java dan Banten. The two latter are known with high rate of urbanization, particularly since they administratively include cities that are surrounding Jakarta capital and had benefited from its economic spill. Riau Islands is not necessarily known as an urbanized area, however it earns high URGD score since the province administratively includes Batam city that continues to grow and oriented to be at par with Singapore, and also Tanjung Pinang as the provincial capital. Moreover, its rural areas comprise of small islands that are low in population and growth due to its remoteness and low accessibility. Whilst provinces with low-scoring URGD are: i) North Maluku, in which its main activity is in natural resources exploration with low availability of high-tech manufacture industries that usually triggers urbanization; ii) West Sulawesi, which is a new province; and iii) Riau Province, which is notably one of the richest province in Indonesia with its plantations and manufacturing industries, yet has a low urbanization rate.

There are three supporting factors for urbanization: i) natural population growth; ii) rural-urban migration; and iii) administrative reclassification. The last factor is deemed potential to be engineered as an urbanization control, and this has been catered in the process in formulating the National Policy and Strategy for Urban Development for refinement. Indonesia also recognized urbanization as the main factor of the rapid increase of urban population. Statistics Indonesia noted that the urban population percentage in Indonesia continue to grow (as shown in table 1), with pace that surpassed UN estimation in 1980 that urban population by 2000<sup>910</sup> would reach 36%, whilst Statistics Indonesia's data show that the population reached 42.3% on the same year. This further affirms that urban population accelerated since 1980, which was when Indonesia's economy structure shifted from agriculture to industry.

Indonesia manages its urbanization through: a) population control; b) expansion of urban areas; and c) migration and population mobility control

#### a). Managing Urbanization through Population Control

Population control is an effort of managing natural population growth by reducing birth and mortality rate, as well improving reproductive health. This effort called family planning has been kickstarted since 1957<sup>11</sup>. In 1969, the initiative was formalized into a government body titled Coordinating Body for Family Planning (*Badan Koordinasi Keluarga Berencana (BKKBN)*) with expanded task to integrate family planning with increasing family's welfare. In 1993, a ministry for Demography and Family Planning was established. These measures managed to reduce population growth from 2,31% in 1970-1980, to 1,98% in 1980-1990 and into 1,49% in 1990-2000. During the period of 2000-2010, population growth was maintained at 1.49%.

Stagnant population growth that occurred within the past two decades was arguably due to democratization and decentralization ambience in Indonesia. Before the regional autonomy era, there was a directive target to halve birth rates by 2000 (which was then accelerated to be by 1990) from the 1971's figure. The National Family Planning (KB) program was evolved into voluntary base, less subsidy, with heavy involvement from central government through BKKBN, in which the then

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<sup>10</sup> UN (1985), *Estimate and Projection of Urban, Rural and City Population 1950-2025: The 1982 Assessment*, Department of International Economic and Social Affairs, New York.

<sup>11</sup> In 1957, family planning was pioneered by Indonesia's Doctors Association (IDI) and known as the Indonesia's Family Planning Association (*Perhimpunan Keluarga Berencana Indonesia (PKBI)*)

President was fully responsible and actively involved in every important activities ranging from promotion and increasing the number of acceptor to ensuring top-down implementation of central policy by using the strong centralistic system as vehicle.

However post Reformation Era, the program implementation relies greatly on local leaders' commitment, including availability of contraception's, as well as the capacity of the local administrative in managing the facility and supply. Of course there should be adjustment in the program design with the current condition, particularly in relation to increasing human rights awareness and bureaucratic reform. There is also a clear incentive to do so, which is to benefit from demographic dividend. Local governments are continuously challenged to adapt, understand local potential and to manage it by utilizing the 'window of opportunity' mindset.

To ensure population control is ongoing, Law No.10/1992 on Population Growth and Family Welfare Development was enacted. This law was then replaced with Law No.52/2009 to accommodate decentralization and is mandated to balance population mobility with environmental capacity. Additional measures to ensure population control (including security) is Law No.24/2013 on Population Administration and Modernizing Citizen Registration with electronic ID card (e-KTP) for every Indonesian citizen. The e-KTP implements the Single Identity Number (SIN) to overcome the problem of identity fraud and multiple ID cards. The e-KTP hopefully will lead to more effective government planning and programming, and delivery of public services.

#### b) Managing Urbanization Through Improvement And Expansion Of Urban Areas

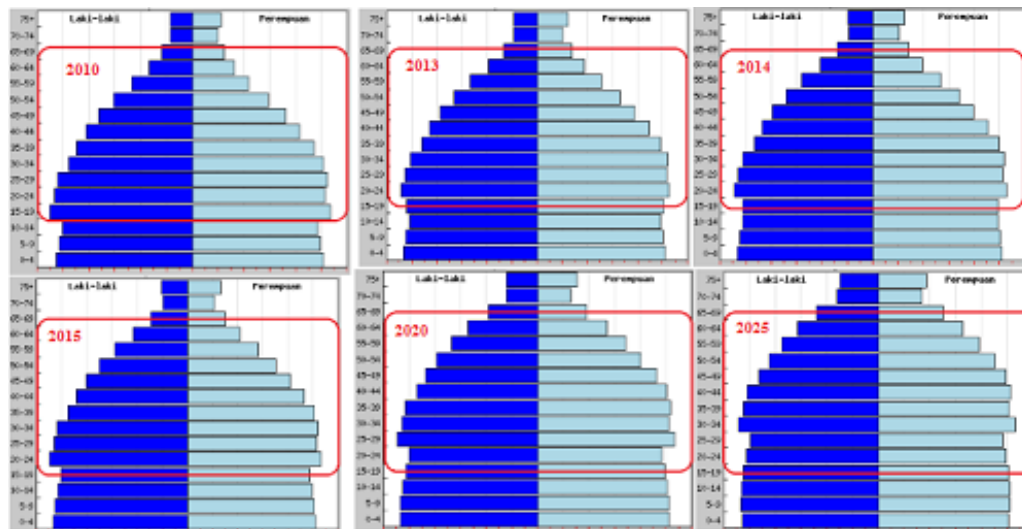
Improving urban areas means addressing negative impact of urbanization, particularly the formation of slum settlements, encroaching fertile land, and limiting protected zones. Expansion of urban areas can mean adding more areas and/or increasing the area carrying capacity which can be found in chapter on Urbanization and Environment. Further detail on Indonesia's work in this area can be found in the Chapter on Housing and Basic Services.

#### c) Managing Urbanization Through Migration And Mobility Control

Managing urbanization does not only mean preventing urbanization, which is contract to most people's belief, but it can also be ensuring urbanization to generate positive and constructive impact. Therefore, migration and population mobility should not be prevented, but to be more selective and guided as stipulated in the Law No 52/2009 on Population Growth and Family Planning. In the formal sector, this selection happens naturally through labor market, however in informal sector, there is yet a functioning selection system, which makes these migrants to be the responsibility of the designated urban areas' administrators. There is yet an effective instrument in Indonesia to manage migration, although effort to do so had been mentioned in the Law. Particularly since the infamous transmigration program is no longer enforced like how it was during the New Order.

One of efforts on migration control is through Urbanization Engineering in Rural Areas (*Rekayasa Urbanisasi di Perdesaan*), which was launched by Ministry of Demography/Head of BKKBN in the 1990s era. For international audience, the term engineering may not be familiar, but in several demographic literature it is defined as "efforts to accelerate urbanization in rural areas" This effort is also hoped to push small cities to grow as buffering area that can hamper rural-urban migration flows. The growth of these small cities would also increase commuting activities. Link and match transportation access in an archipelagic country will be contributive in increasing commuting flows and reduce permanent mobility (migration).

Managing urbanization must also pay attention to future demographic projection. Based on BAPPENAS, BPS, UNPF projection, it states that by 2025, the age composition structure of Indonesian population will be: age 0-14 years old will be 23,3%, age 15-64 years old will be 68,7%, and above > 65 years old will be 8,1%. Dependent ratio at this year is the lowest, at 45,5%. This composition requires a large supply of housing settlements, urban facilities, market opportunities and mass transportation modes.



**Figure 2. 1 Population Piramide of Indonesia and its Projection, 2010-2015**

Source: Statistics Indonesia, 2014.

Various studies indicate that recent migrants are at their productive age. The development of the region will then depends on the quality of these migrants. According to Adioetomo (2005), increasing population that is within their productive age is very rapid and must be responded with sufficient employment opportunities. If not, massive unemployment will occur.

The informal sector is easier to enter, as it does not require certain skills or credentials. This sector is very potential and accommodates 70% of workforce in several developing countries. In Indonesia, informal sector mainly can be found in trade: peddlers, coffee kiosks, food kiosk, street vendors; transportation: motorcycle taxi (ojek), cycling rickshaw, carts, etc.; and service provision, such as motorcycle repair, repairs of various kinds, middle management. Other than taking in a large number of workforce, this sector also contributes as a very flexible buffer, has a tight link with distribution network at the lower income level, and become a potential market.<sup>12</sup>

According to Statistics Indonesia, informal sector constitutes 70% of the total workforce, whilst formal sector is only 30%. Unfortunately informal sector in Indonesia is often seen as invading public space and disturbing the city's esthetique and cleanliness.<sup>13</sup>

## 2.2 Managing Rural-Urban Linkages

If urban-rural linkages can be defined as a physical and spatial relation, then it seems to be clear and simple, however it is not easy to identify underlying issues and general principles that will be used in formulating national policy in regard to rural-urban linkages. First, size and urban character of city in Indonesia greatly varies. There are autonomous cities with population over 9 million like Jakarta,

<sup>12</sup>Suyanto, Bagong dan Sutinah (ed), 2005, Metode Penelitian Sosial, Berbagai Alternatif Pendekatan, Jakarta: Prenada Media.

<sup>13</sup> Bahri, Syamsul (2012). Pembangunan Perkotaan dan Pedagang Kaki Lima (PKL) Suatu Kajian Intervensi

but also those that is less than 55,000 like Sawah Lunto. Second, cities also vary in regard to its geophysical condition, like Bandung that is located in a high plateau and occupied by 2.5 million people, to those located in coastal areas. Third, differing trend of population growth whereas some rapidly grows, and others decreases. The latter happens in mining-based towns.

Indonesia's rural areas also vary in characters, from agricultural based to fishery based that are located in coastal zones. Many rural areas have also become agricultural derived manufacturing or service sector, such as food and drink manufacturing. Rural-urban linkages are viewed as location-specific issue. Naturally, the size of an urban area that is reflected in its population concentration determines its degree of influence to the surrounding rural areas. In outside of Java, the relation between rural and urban are more clear cut, with rural areas require its connection to its closest urban core. In Java, such relation is less clear cut, with rural areas may depend on the far away urban areas. The latter case, can be presented when the connection developed through exporting goods such as fish or exporting services such as labour.

In Indonesia, there is no strong policy nor massive efforts in addressing rural-urban linkages. The relationship almost take place naturally. In this context, the size of an urban area will determine its degree of influence over the surrounding rural's life. An urban area transforms, or at least influences, rural areas in the following ways:

- First, expansion of urban into rural, or in other word, expansion of urban areas by administratively reclassifying rural areas as urban's. This happens in most urban areas with size and pace that are varied.
- Second, urban invasion, such as development of a new city such as Batam and other satellite cities surrounding Jakarta that transform rural areas into urban. Rural characteristic will then disappear and replaced with urban's.
- Third, penetration of urban into rural, marketing of products, behavior and urban values into rural. This often happens, and sometime this is even engineered and planned
- Four, cooperation between rural-urban, which in general is highlighting rural-like products into the urban area. Cooperation can also be initiated by the urban administrator or rural connection with various reasons, ranging from romanticism, humanistic value to economy or even exploitation.

From the four relations, they are all initiated by party from urban. The opposite process almost never happens.

Rural-urban linkages can be simplified as relation between life in the agricultural sector and non agricultural, or organic community versus mechanic community. Indonesia realizes that agricultural life cannot be eliminated as it is the source of all food supply. However, growth of these communities must be reduced at a certain point since it is assumed that work in this areas will grow to be more efficient and require less labor, particularly with technology development. Whilst non agricultural communities does not have a limit point. It is also realized that application of technology development, particularly transportation, communication and information, in rural areas may alter the organic community. For instance, exposure to development has slowly reduce the use of customary based law and being replaced with national law, universal law and social contracts. Nevertheless, the formation of mechanic community is inevitable. Then if we assume that urban characteristics refers to non-agricultural and organic community, then it can be concluded that urbanization is an imperative and unavoidable process.



Having said that, what Indonesia needs to prepare is to preserve rural characteristics and manage the transformation so that the process does not result in culture shock. This may not be an urgent matter to be addressed since urbanization process does not happen in a blink nor simultaneously. This is a natural-paced process and evolution, unless there is a changing policy direction to accelerate it. At that time, we will need to reflect why do we wish to accelerate and why is it important to manage such a process.

### 2.3 Addressing the Needs of Urban Youth

Law No. 40/2009 on Youth defines 16-30 years of age belonged to this category<sup>14</sup>. Statistics Indonesia recorded that in 2010, the number of youth in urban areas is 33 million, whilst in rural areas is 28 million. Projecting the growth of population, its structure based on age, number of youth population will increase and reach its peak in 2025 where the 15 – 64 years old productive workforce constitute 68.7% of the total Indonesia's population. This condition is regarded as demographic dividend. Indonesia's population policy treated this as productive resource.

The average level of education of Indonesian youth (based on 2005 and 2007 National Survey) indicated that enrolment rate of those in the age cohort of 16-18 years old (secondary level) increase from 53.9% in 2005 to 54.1 in 2007. Whilst enrolment rate of youth in the age of 19-24 years old (bachelor degree level) increase from 12.2% in 2005 to 12.6% in 2007. Literacy rate also decrease from 2.6% in 2007 to 0.9% in 2008. It should be noted that there is larger population of illiterate female youth compared to male youth (3,1% versus 2,1% by 2007). In 2010, 67.17% urban youth is identified as labor or employees as shown in the table below:

**Table 2. 2 Working Youth based on Work Status and Living Location**

Work status	Urban		Rural		Total	
	Amount	%	Amount	%	Amount	%
Entrepreneur	2.401.338	4,75	2.816.860	7,64	5.218.198	16,18
Non-permanent/non paid	264.451	1,62	1.556.247	9,75	1.820.698	5,65
Permanent/paid	463.726	2,85	370.263	2,32	833.989	2,59
Employee	10.938.028	67,17	4.169.897	26,12	15.107.925	46,84
Self employed	1.478.967	9,08	2.139.368	13,40	3.618.335	11,22
Family worker/ non paid	738.081	4,53	4.914.040	30,78	5.652.121	17,53
<b>Total</b>	<b>16.284.591</b>	<b>100</b>	<b>15.966.675</b>	<b>100</b>	<b>32.251.266</b>	<b>100</b>

Source: Youth Statistic 2010 in Simanjuntak (2012).

The challenge lies in how to ensure job opportunities youth labor. Will their fate rely on their employer? Table 2.2 also indicates that around 17 million urban youth and 13 million rural youth is unemployed – although it should be noted that the number does not exclude youth that are still in schools, and have not yet entered the labor market. To face the demographic dividend era, prepping the quality and identifying these youth's comparative advantages is the challenge for all urban government.

<sup>14</sup> According to Law No.23 Year 2002 on Child Protection, the entering age for adulthood is 18 years old. In this chapter, the definition that will be referred to is based on the Law on Youth Generation

Provision of education facilities, formal or informal or nonformal, muchless vocational education is highly required.

Another issue is the low absorption of youth workforce in the urban labor market. Limited job opportunities and large supplies of young workers further increase unemployment rate. This challenge, however, has been addressed in several champion cities. The municipal governments have been fostering the development of creative industries that are mainly done by youth. These cities are Solo (Kota Surakarta) as creative city with its design industry, Cimahi with its animation industry, Jember with its fashion industry, etc.

## **2.4 Responding to the Needs of the Aging Population**

The elderly or the aging population in Indonesia was around 7,18% in 2000 and increased up to 9.77% in 2010, and estimated to be 11.34% (2020). In number, it is around 24 million in 2012 and estimated to be 30 million in 2020. The proportion of aging population in comparison with the productive population increases from 7,4% (1999) to 11% (2020). Elderly population has economically dependent, with Old Dependency Ratio (ODR) of 11,95% in 2010. The total proportion of aged population was also within the same number with proportion of the children population by 2010. This trend is also in line with the rising trend of life expectancy, in which it was 64.5 year in 2000 and increased to 69.43 year in 2010 and 70,07 year in 2013. This trend is experienced by eleven southeast asia countries, with a total of 142 million people and continued to triple in 2050.

Indonesia's regulatory framework on aged population and their well-being is reflected in Law No.13 Year 1998, which was then further detailed in Government Regulation No.43 Year 2004 on Implementing Efforts to Improve Social Welfare for Aged Community. Further more, a Presidential Decree No. 52 Year 2004 on National Commission for Aged Population, and Ministry (Home Affairs) Decree No.60 Year 2008 on Guidelines in Establishing Local Commission for the Aged Population and Community Empowerment in Catering to Aged Population at the Local Level.

Indonesia also developed National Action Plan for the Aged Population (*Rencana Aksi Nasional Lanjut Usia (RAN-LU)*) for period 2009-2014. Several goals in RAN-LU are: (a) establish and strengthen institutional aged population; b) strengthen coordination amongst relevant institutions; c) strengthen management for poor aged population, disabled and victims of violence; d) maintain and strengthen family support for the aged; e) affirm efforts of welfare service for aged population; f) improve living quality in aged; g) improve efforts to provide amenities and special facilities for the aged; h) increase efforts to provide the quality of self-sufficient-oriented education for the aged; and i) improve international network cooperation. Although at the policy level there is already directives in how to cater to aged population, but in practice it is not yet fully implemented.

WHO issued a guideline for Aged-Friendly City, which covers 8 dimensions:

1. Building and open space
2. Transportation
3. Housing
4. Social Participation
5. Respect and social involvement
6. Civic participation and employment
7. Communication and information
8. Community support and health

Several cities in Indonesia have gone through these assessments, namely: Balikpapan, Medan, Payakumbuh, Jakarta Pusat, Depok, Semarang, Surakarta, Yogyakarta, Surabaya, Malang, Denpasar, Mataram, and Makassar. Scoring is done based on 25% of the municipal government's achievement from the aforementioned indicators. Cities that have a good scoring are Balikpapan, Surabaya, and Payakumbuh.

Surabaya city is one of the Elderly or Aged Friendly cities in Indonesia, which was indicated through the Elderly or Aged-Friendly Movement with the following achievements: (a) high life expectancy: 71 year old for male, and 73 years old for female; b) provision of training and establishment of retirement home in every neighbourhood; c) establishment of aged-dedicated parks and special facilities; d) infrastructure and several general facilities like toilet and pedestrian; e) public buses for the aged; f) establishment of Local Commission for the Aged; g) cooperation amongst implementing institutions, such as the social unit, public works unit, sanitation and park unit, health unit and others.<sup>16</sup>

The dynamic of aged protection in Indonesia is tightly linked with existing norm and social value in society that place aged population in an honorary position, as the source of wisdom and blessings, highly respected in ceremonies or daily life and perceived as people who have high frequency in spiritual activities. They are a group in society that is highly respected, however economically unproductive. However, as the action plans have been developed, reporting on elderly abuse has increased. In 2010, about 2,8 million are neglected, 4,7 million are vulnerable to be neglected, and 70.462 are victims of violence. While about 10,5 million remains productive (Sunusi, 2014).

With the increasingly high basic needs, norms and values in viewing the aged has shifted and now in favor of empowering them economically, according on their potential and skills, amongst others is the policy to increase retirement age for civil servants from 56 years old to 58 years old, and for functional position is from 60 to 65 years old.

Aged people who are still within the workforce age or potential aged people that are mostly found in developing countries and countries that have not yet a social security for their pension days, and social security that are not sufficient to provide for their life. Therefore they need to work to fulfill their family needs. Based on national survey on workforce (*Survei Angkatan Kerja Nasional (Sakernas)*) in 2011 almost half (45.415) of aging population still work (potential aged) and 28.69% is taking care of households, whilst 1.67% is unemployed. This condition is followed with facts that level of participation for male aged is higher (72.26%) compared to female (37.83%).

The agricultural sector is still the popular work area for most aged people (60,92%), followed with service sector (28,80%), and industry 10,28%. It is also identified that more of them is working in urban areas (51,46%) than in rural areas (38,99%).

Health condition of the aged population in Indonesia is still considered as low, which is indicated from the increased percentage of having health issues. In 2003, the percentage is 48.95% and increased to 54.25% in 2007. Rate of illness is also increased from 28.48% in 2003 to 31.11 in 2005. The rate of homeless aged population is also high, with 2.7 million (15% of the total population in 2006). Nevertheless, urbanization is believed will responds better to the aged population with its job opportunity and supporting facilities that is more available than in the rural. In Indonesia, the aged

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<sup>16</sup> Hilda. 2012 Surabaya Kota Ramah Lansia. Gapura Majalah Pemerintah Kota Surabaya. ISSN 1978-3663. Vol XLIV. No.66 Oktober 2012.

population that is categorized as poor is around 59.12%, which is around 27% of the population of the poor. These people often only graduated from elementary and have no steady job.

The way forward to address this issue is to focus in improving the aged's welfare to enable them to have an independent life and continue to be productive. Amongst others is to ensure their involvement in various activities, provide facilities that can improve their physical and psychological health, and prepare various programs and action plan to accommodate their social life.

The effort in rising the aged's welfare can be seen in Pekanbaru city. Pekanbaru municipal government has carried out Security Program for the Aged (*Program Jaminan Lanjut Usia (JSLU)*) that had been ongoing between 2006 to 2013. The program design is to provide cash transfer to every aged people per trimester; evaluate and assess existing retirement home in Pekanbaru, identifying their needs, and undertake training for those who are physically disabled.

Pekanbaru municipal government had taken this issue seriously. Some critics in regard to implementation is the lateless of the cash transfer distribution, as well as registration, which makes some of the financial aid does not go to every aged people in the city. This incident occurs due to data mishaps, for instance, when the data of total aged population is stated 21.440 people, however only 14.000 of them are administratively registered.

## **2.5 Integrating Gender in Urban Development**

The majority of Indonesian people are patriarchal society, where there is a conventional belief that women belong in the domestic sphere, whilst man in public sphere. This is based on a reigning value that it is the responsibility of men to provide for his family, whilst women take care of all household needs. Nowadays Indonesia recognizes increasing women's role in the public sphere. Although unfortunately this tends to create women's double role, which is a condition where they are still demanded to be active in managing households (as their domestic role) although they are also contribute to the households' income (transition role). To address this issue, integrating gender with development becomes important.

Historically, such efforts had been done since the colonial era. It should be noted that voting rights for women has never been an issue in Indonesia. Moving on, Indonesia had ratified the UN agreement on *Convention On The Elimination of All Form Of Discrimination Against Women (CEDAW)*, into Law No.7/1984, which was followed with establishment of Ministry of Women Empowerment in 1983. The law stipulates the obligation to eliminate discrimination and encourage equity and gender justice.

After the Reformation Era, the President issued Instruction No. 9/2000 on Gender Mainstreaming in National Development, which mandated all government bodies to carefully employ Guidelines for Gender Mainstreaming in National Development under the guidance of Ministry of Women Empowerment.

The National Long-Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional - RPJPN*) 2005-2025, stipulated Guidance for Women and Children Empowerment to create a competitive nation, amongst others are through improving women's living quality, children's welfare, reducing violence, exploitation and discrimination as well as institutional strengthening and network for gender mainstreaming. This is further detailed in Mid-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional/RPJMN*) (2004-2009), which also identify several gender-related issues,

namely gender-biased law and regulation; discrimination against women; weak institution and network for gender and children mainstreaming, including the lack of data on people's participation.

This indicates Indonesia's commitment to guarantee and promote gender equity in national policy. Indonesia has also employed Gender Development Index nationally, which shows increasing result from 2004 (63.94) to 2012 (68.52). Topping the scores are Jakarta, North Sulawesi and Yogyakarta across 2006-2012.

Nevertheless, there are still several issues encountered in practice, particularly in urban areas:

- Female students graduated from Elementary, Secondary school and higher education is 82.24%, lower than male students with score of 89.94%. It should be noted that this figure is higher than the figure found in rural areas.
- Female percentage (15-49 y.o) that uses contraception in urban areas is 61.47%, this number is much higher compared to male participation in contraception use (vasectomy dan condom) which is only 1.68%. Figures in the rural areas is slightly higher for female (63.33%) compared to the urban figures. Male participation in the rural areas is also lower than in urban areas (0.75%)
- Women activities (15 y.o and above) in urban areas are working (44,74%), and taking care of households (38,52%).
- Main job market for women in urban areas is in trade sector (38,38%) and social community and individual service (27,57%). Generally, participation rate in employment for women is lower than men (47,91% against 79,57%). Inequity is also apparent when reviewing salary received by men that is higher compared to women, with ratio of 0.8, although the trend has a tendency to increase.
- Women's involvement in politic and as civil servants nowadays reach 20%, unless in Regional Representative Council (Dewan Perwakilan Daerah – DPD) that is more than 20%.
- Women's involvement in urban areas in the informal sector reach 37.56%, whilst men is 33.68%. Meanwhile in the rural areas, women's involvement is 75.11%, whilst men is 67.29%
- Jakarta's commuter line and busway has designated a special coach for women.



**Figure 2. 2 Commuter Line (Women Only Wagon)**

Source: Fathia Hashilah, 2014

Amidst various examples that depicts expansion of women's space, there are still value and social culture that is yet to be intervened by public policy (such as family planning, voicing right in customary matters and heritage). It is then apparent that gender issues in Indonesia mainly lies within domestic area and are related to social and culture. One example is in Makassar. As the hub of service, trade, manufacture industry in the Eastern region, this area has strong pull factors for migrants. The growth of these sectors unexpectedly create a gender issue since most of the workers in the sectors are women. This is due to the perception that these developing sectors requires more pleasant workers, hence preferred by the employer. Pleasants refer to being more accepting and have less demand compared to male workers. This trend is also exacerbated with the high land use conversion from agriculture to non, in which most of the farmers are usually female. From a glass-is-half-full point of view, this results in high supply of potential batch of female labor; however a less optimist point of view, this could also mean high number of unemployment if these workforce is not absorbed into labor market.

To address this, one of the women empowerment program that is carried out by Municipal Government of Makassar is to increase women participation in "*Mabello*" movement or Makassar Fixing the Alleys (*Makassar Benahi Lorong*), which is alley upgrading to be more humane, safe and productive. The aim of this program is to encourage productive-aged women, especially household wives, to actively support their household income by utilizing space facing the alleys for informal economy activity (home industry). In addition, the municipal government also launched the Green Life Program with Urban Farming, which encourages women to make their own urban farm that is installed vertically accross every city's alleys.





## CHAPTER 3 LAND USE AND URBAN PLANNING

### 3.1 Ensuring Sustainable Urban Planning and Design

Legislative resilience is an important component to ensure the sustainability of urban planning and design. Currently in Indonesia, these legislations are being revised and elaborated. In 1948, during Indonesia's war to retain its sovereignty, the Dutch occupying government issued an urban establishment law (*Stadtvorming Ordonantie*), which aims to recover cities that are ruined by the war. This law became the basis of development of new town area of Kebayoran Baru in Jakarta, which was planned in 1949 and implemented in the 1950's. Despite the issuance of the Act, the Indonesian government did not fully acknowledge the law, largely due to its discrepancy with Indonesian Land Law issued in the 1960s, and also due to nationalistic sentiment to reject the laws that were issued by the occupying forces. There had been efforts to adapt the law into Indonesian context, but this effort did not continue, with arising agreement that urban planning should be derived as a translation of regional planning. Due to legal vacuum, urban planning and development control was largely based on the Ministry of Public Works and Ministry of Home Affairs' policies. This discretion-based planning process has a potential for conflicts due to the difference of principles, concept, perspectives, and authorities. A draft for Urban Development Law that was derived from the *Stadtvorming Ordinantie*, RUU Bina Kota (Urban Development Law) was developed till the 1980s, but during the process of discussing the Spatial Planning Law, the urban development component was compromised.

The Spatial Planning Law as UU 24/1992 of regulated spatial planning, utilization, and control, and established the spatial planning hierarchy in accordance to the government hierarchy at that time. Planning commenced from the spatial plan at the national level, down to provincial, regency, and city level. The resulting plan affected spatial structures and patterns. The spatial structure is defined as interrelationship between spatial functions, while spatial pattern is defined through the land utilization, differentiating conservation, agriculture, urban, and rural areas.

After being in effect for 15 years, the Spatial Planning Law of 1992 was deemed ineffective, particularly on Indonesia's spatial order. The resulting plan, based on the Law's subsidiary regulations, is inadequate to respond and control the development at that time. Hence, the Law needs to be renewed and adapted to the newly amended Indonesian constitution of 1999 and the Local Government Law as UU 32/2004.

In 2007, the new Spatial Planning Law was issued as UU 26/2007, superseding UU 24/1992. The new law did not change the planning hierarchy, procedures, and principles, instead, the law elaborated the responsibilities of the spatial planning authorities. The spatial planning plan must include zoning regulations at the regency / municipal level to be the basis of permit issuance. To increase the effectiveness of plan implementation, the Law stipulated criminal sanction for any deviation of the spatial plan, or any inaction towards deviation of the plan. The stipulation of criminal sanction means that the relevant authority must investigate to discover and prove any deviation or inaction.

This new Law defines the obligation of regional government to carry out its roles under the purview of regional decentralization, under the newly amended constitution. The planning process still refers to the national guidelines and the higher hierarchy of regional governments. The laws for of spatial planning in Indonesia provides a framework for integrating urban development and the development of the region, important for the sustainability of urban development which depends on the development of region where the urban area develops. The sustainability of the plan will be determined

by the extent of Spatial Planning Coordination Board at the national level to the district carry out their duties.

With reference to Law no. 26 / 2007, spatial planning has become more decentralized. There are more detailed divisions of authority between central and local governments, which are expected to avoid overlapping authority or passing on responsibility. The Preparation the regional spatial plans adopts hierarchical principle, namely, complementarity between regional spatial planning with the area under its hierarchy, and the general plan based administrative area (province, regency / city) with a detailed plan as elaboration based on strategic and functional values.

Technically, the Spatial Planning Law acts as an umbrella in regional spatial planning, which has been equipped with a variety of norms, standards, guidelines, and criteria (NSPK) for the implementation of spatial planning in various levels of the region, both for the general plan and detailed plan. With the NSPK it is expected that the implementation of spatial planning will become more focused, effective, and well-targeted. In this regard, the government issued Government Regulation No. 15 in year 2010 that outlined the governing, development, implementation, and monitoring arrangement of spatial planning, ranging from the national level to the regency / city levels. The regulation also outlined the procedures of preparation and adoption of a general plan (National RTRW, Provincial RTRW, and Regency/City RTRW) and detailed plans (National Strategic Areas RTR, Provincial Strategic Area RTR, as well as Regency / City RDTR and Regency/City Strategic Area RTR).

The implementation of Act No. 26 of 2007 implies that all regions must have a Spatial Plan (RTRW) at the provincial and regency/city level. Currently, out of 34 provinces in Indonesia, 25 of which have had Provincial RTRW. Meanwhile, out of 398 regencies, 291 of them have had Regency RTRW and from 93 cities, 75 of them have had City RTRW (see **Table 3.1**).

**Table 3. 1 Status of Regional Spatial Planning (2014)**

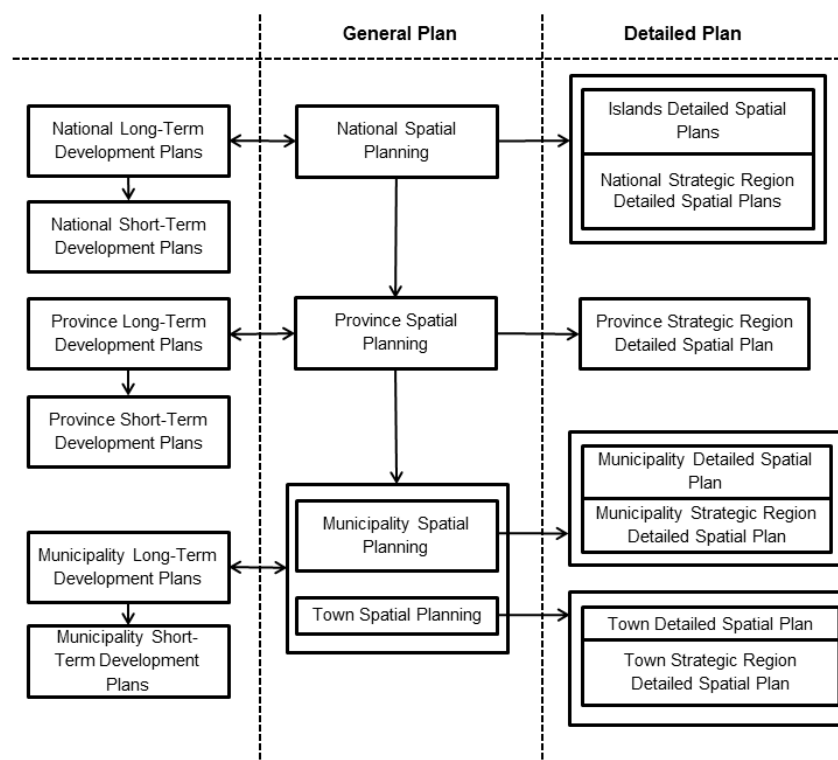
(Type of spatial plan)		Total	Percentage
1	RTRW Kota (Municipal general spatial plan)	77 (of 93)	82.8%
2	RTRW Kabupaten (Regency general spatial plan)	304/398	76.4%
3	RTRW Provinsi (Provincial general spatial plan)	25/33	75.8%
4	RTR Pulau (Main Island Spatial Plan)	7/8	87.5%
5	RTR KSN Kawasan Perkotaan (Metropolitan Spatial Plan)	6/6	100%

Source: Directorate General of Spatial Planning, Ministry of Public Works

The practice of urban planning in Indonesia is carried out through regional planning and spatial planning of the city. Regional development planning is based on Law No. 25/2004 on National Development Planning System, while the spatial planning of the city is based on the Law No. 26 / 2007 on Spatial Planning. Both of these laws become a reference in the planning process, planning procedures, and planning deliverables as part of the local government's tasks. Related to spatial

planning deliverables in the city region, there is a distinction between the general spatial plan and detailed spatial plan based on the approach and area of planning.

Referring to Law No. 26/2007 on Spatial Planning, the position of City RTRW as a general plan in Spatial Planning System, hierarchically refers to the Provincial RTRW and the National RTRW. This is associated with the National Development Planning System, as stipulated in the Act No. 25 / 2004 on National Development Planning System, the City RTRW is basically a spatial dimension of the Long-Term Development Plan (RPJPD) of the City and a reference in the preparation of the Medium Term Development (RPJMD) of the City. To implement the City RTRW as a general plan, a detailed plan for the scope of the city is created as Detailed Spatial Plan (RDTR) and Strategic Area Spatial Plan (RTR) of the City. City RTRW position in the spatial planning system and national development planning is depicted in Figure 3.1.



**Figure 3. 1 The Position of City RTRW within Spatial Planning System and National Development Planning System**

To ensure the sustainability of urban planning, it is imperative to install an authority that coordinates spatial planning. National Spatial Planning Coordination Authority (BKPRN) is an ad-hoc institution formed to respond to the needs of various government bodies in addressing the coordination issues of spatial utilization for development. Over time, this institution underwent several changes. In the beginning of its establishment, the initial name of the authority was Coordinating Team for National Spatial Planning Administration, based on Presidential Decree 59/1989. The name of the authority was changed into National Spatial Planning Coordination Authority (BKPRN) based on Presidential Decree 75 / 1993 and later reconfirmed through Presidential Decree 62/2000.

BKPRN is headed by the Coordinating Minister of Economics and consists of a) Implementation Team, b) BKPRN Secretariat, and c) BKPRN working groups. Members of the team are related Ministries and Agencies. The role of BKPRN includes: Preparation of national spatial planning

policies; Implementation of national spatial planning in an integrated manner as a basis of policies for national spatial plan development and areas outlined in sectoral development programs and regional development programs; Addressing and resolving issues related to implementation of spatial plans, both in national level or regional level, and advising the direction for resolution; Formulating and harmonizing legislations and regulations in spatial planning aspects, including standards, procedures, and criteria, as well as institutional capacity building in spatial planning.

Despite its high level of authority and administrative rank, BKPRN's is not effective. The issuance of Law 26/2007 on spatial planning triggered a momentum to re-evaluate the establishment and needs of this spatial planning authority. The evaluation concluded that BKPRN is necessary, but it has to be more dynamic and anticipative. Hence, on 18 March 2009, the President issued a Decree no. 4/2009 on BKPRN stipulating its direct reporting requirement to the President of the Republic.

### ***The Sustainability of Urban Planning***

Sustainability aspect is the main principle and objective of urban spatial planning, so that there is an assurance that sustainable development principles become an integrated basis in the preparation of the City RTRW and City / Urban Area RDTR. It is formally been further stipulated in Law No. 32 / 2009 on the Protection and Management of the Environment, which stipulated the strategic environmental assessment (KLHS) as one of the instruments for environmental management, in addition to spatial planning. In this case, KLHS is a systematic, comprehensive, and participative series of analysis to ensure that the principles of sustainable development has become an integrated basis in the development of a region and / or Policies, Plans, and Program (KRP). The purpose of KLHS is generally to ensure the principle of sustainable development has become an integrated basis for development. The KLHS requirement being applied as part of the planning process basically is inseparable from the facts that the development process as depicted in the Policies, Plans, and Programs has not optimally considered the principles of sustainable development. Meanwhile, other environmental management efforts at the project / activity level such as EIA has not resolved various environmental issues optimally, considering that environmental issues reside at the level of Policy, Plans and Programs. Hence, the benefits of KLHS is to ensure that any Policies, Plans and Programs could avoid or reduce negative impacts on the environment. The KLHS includes an assessment on the KRP influence on environmental conditions of the region; formulation of alternatives for KRP improvements, as well as recommendations for the improvement of the KRP decision making which integrates the principles of sustainable development. Ideally KLHS is an integral part (merged or integrated process) in the planning process.

### **3.2 Improving Urban Land Management and Addressing Urban Sprawl**

Urbanization or urban transformation that occurred in Indonesia basically includes the physical, spatial, economic and socio-demographic dimensions. Population growth and rapid urban economic growth ultimately give direct implication to the land requirement. Limited land availability caused various urban land issues that becomes increasingly complex. In general, the problem of urban land includes land use management policy issues, administrative issues / land registration issues, abandoned land, overlapping control and ownership of land, and land conversion issues.

Among the main problems are related to tenure and land registration. About half of urban land in Indonesia that has been listed in the online National Land Agency (BPN), a central government agency in charge of land administration, faced many obstacles in the process of registration (certification) of land. In practice there are still uncertainty regarding the cost and length of time required in land

registration procedures. To meet the needs of land titles in a timely manner, the registration fee varies and sometimes more expensive than those listed in the official rules, hence many low-income residents who cannot register their land. Some BPNs in the regions are still unable publish detailed process and the fees involved in the registration (Hudalah, 2011).

Ambiguity of land status also affects the implementation of spatial planning. Until now, land ownership data ownership cannot be used as a consideration in the process of spatial planning. Planning documents, both RTRW and RDTR, was prepared with the assumption that all land can be allocated in accordance with the planned land use. However, in practice, this often hampered due to prolonged process of land acquisition. Land ownership conflicts often hamper the implementation, or even resulting in failure of spatial plan implementation. One root of the cause is the Basic Agrarian Law which is still based on the assumption of the agricultural economic structure, stressing on the absolute individual land ownership, which makes long term development and infrastructure planning in a dynamic and growing urban environment difficult. To resolve it, the Government issued Law No. 2 / 2012 on Land Acquisition for Development and Public Interest as a way out of difficulty and stagnation in the implementation of development and planning for urban infrastructure today.

With regards to decentralization, BPN has handed over the affairs of land development permits authority to each local government. In addition, the management of the land tax and the land and building tax (PBB) authority have also been transferred from Ministry of Finance onto each region. From the point of view of urban planning, the PBB can be a strategic instrument to realize the spatial plan of the city in the future.

Other physical-spatial problems is the sprawling development of urban areas, especially in large cities and metropolitan areas. This is characterized by the expansion rate of the built up area which is higher than the rate of population growth, and is generally not balanced by decentralization of urban centers / the location of the workplace. Development of new residential areas in suburban sprawl pattern often raises issues related to urban spatial structure, such as conversion of agricultural land in the suburbs, environmental degradation, the need for infrastructure provision, and conflicts among local governments, in addition to increasing the length commute which has implications for the increase in dependence on the use of motor vehicles (cities of the automobile).

Similarly, the development of residential areas for middle-class and high-income population in suburbs tend to increase reliance on private motor vehicles. In this context, environmental problems arise: the need of land for housing development that led to urban sprawl, dependence on motor vehicles are increasingly high, traffic congestion, increased energy consumption, and air pollution that degrade the quality of the urban environment.

As an example, the development in Bandung urban area is widespread, forming spatial configuration that spread in all directions randomly. Built-up area has developed very rapidly, mainly driven by the development of new residential areas in the last two decades. In terms of spatial pattern, the development of residential areas follows the development of the road network and the land availability. From the changes in land use in Bandung and surrounding areas over the last two decades, it appears that the suburbs experienced a growth rate of built-up area (land-use residential, industrial, commercial, and services) is much larger than its original urban center area. Based on data from the Village Potential (BPS 2000, 2005), the rate of growth of the built-up area in the outskirts reaches 3.38% / year, much higher than in growth of the urban center in the city which is only 0.73%. Development in suburban area was accompanied by the suburban population growth higher (2.23% / year) than the same indicator in the city that showed negative growth (-0.16% / year).

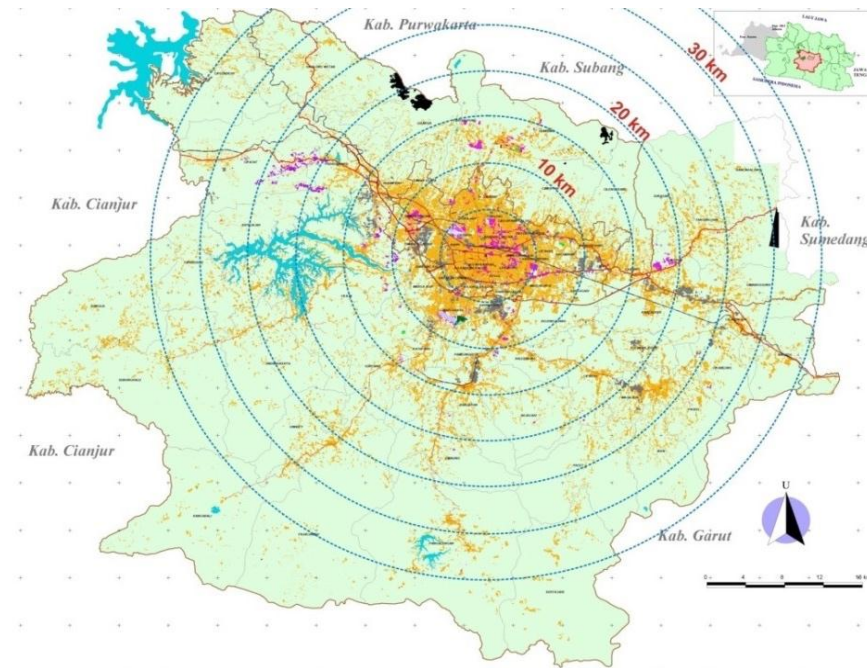


Figure 3. 2 Urban Sprawling in Bandung Metropolitan Area

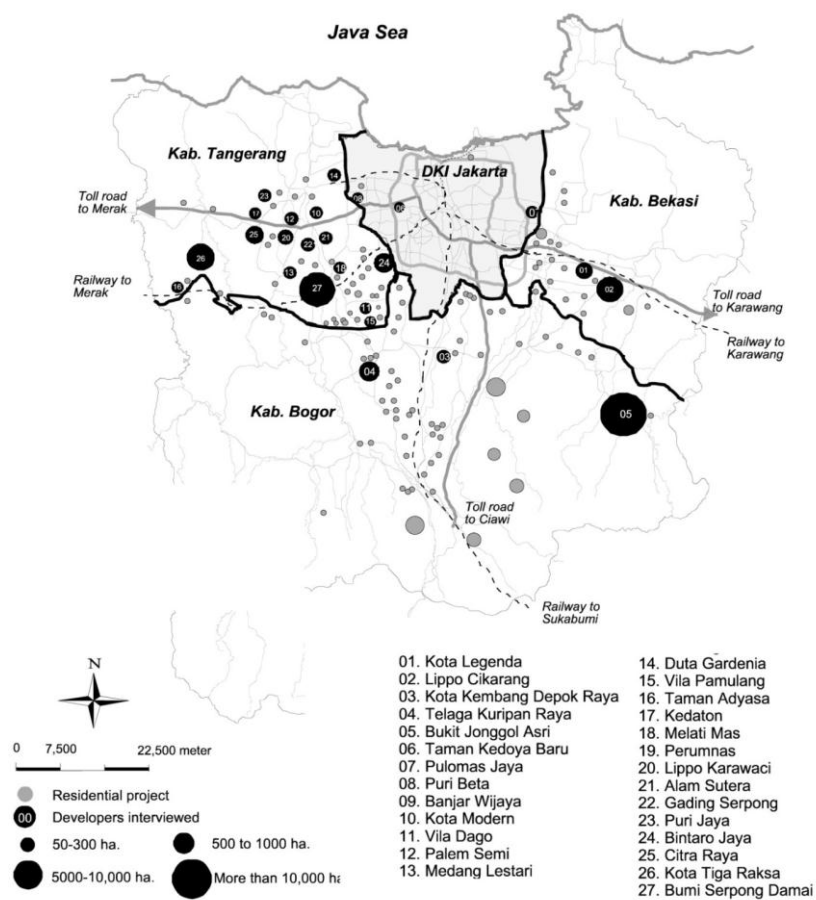


Figure 3. 3 New Town Development in Jakarta Metropolitan Area

Source : Herlambang, 2013

Currently, Indonesia has some regulation that oversee land management, among them are the Law 5/ 1960 on the Basic Agrarian Law (BAL), Law 5 /1967 on Basic Forestry, Law 26 / 2007 on Spatial Planning and the Law No.41/2009 on the Sustainable Protection of Agricultural Land.

- The Basic Agrarian Law (BAL) sets the rights to land and land registration. Land rights are granted to the people, either individually or jointly with others as well as legal bodies. Land rights includes property rights, the right to cultivate, land rights for building, rights of use, leases, rights of open land, rights to collect forest products, as well as other rights that are not included within these rights. The land registration includes measurement, mapping and land bookkeeping; registration of rights to land and transfer of rights; granting letters of proof of rights as a legal proof. To register, there are fees incurred, except that poor people are exempt from the payment of these fees. The Basic Agrarian Law is a major regulatory element in land management.
- Law No. 5 /1967 on Basic Forestry governs the management of forest lands. Based on its ownership, the forests are divided as state forests, i.e. forests that grow in soil that is not of any person's property, and private forest, i.e. the forests that grow on land subject to property rights. Management of state forests and private forests is conducted according to its function, either as protected forests, production forest, conservation forest and tourism forests. To obtain and increase the production of forest products and building the national economy, the government can jointly with other parties undertake forest management, and allows the inclusion of private capital.
- Law No.41/2009 on the Sustainable Protection of Agricultural Land manages farmlands. Increasing population growth and economic and industrial development that resulted in the degradation, conversion and fragmentation of agricultural land threatens the carrying capacity of the national regions in safeguarding food security of the food has been threatened national territory in maintaining food self-reliance, food security and food sovereignty. The scope of protection of sustainable agricultural land for food production includes planning and stipulation, development, research, utilization, capacity building, control, supervision, information systems, protection and empowerment of farmers, financing, and community participation.

However, land management implementation in Indonesia is inadequate. According to the World Bank (1994) land use management in Indonesia is a complex problem because of the limited framework and too many parties involved.

The National Land Agency (BPN) has the task of carrying out government duties in land administration and management at the national, regional and sectoral level. Related to peri-urban land management, National Land Agency has launched a number of programs, namely information of land valuation, land stewardship, the legalization of assets as well as social mapping.

One of the programs of the National Land Agency is providing land assessment information (land market) in the form Land Value Zoning Map and Economic Value Area Zoning Map. Land Value Zoning Map is obtained based on the results of field surveys, and is useful for the society and private property developers or investors to determine the value of land. National Land Agency also proposed for the elimination of tax object selling value (NJOP) and replace it with implementing the Land Value Zoning (Tribun News, 2015). This is to support sustainable development and to support the development of strategic area and special economic zone specified by the development policies. The next program is land administration by means of land authority, land use and utilization, in the form of



land use consolidation through institutional arrangements related to land utilization as an integrated system for the benefit of a just society.

National Land Agency launched asset legalization program to ensure legal certainty on community land through programs such as PRONA Certification, Farmers Land Certification, Fishermen Land Certification, SME Land Certification and Low-Income Communities Land Certification. Explanation of each program based on the National Defense Agency (2015) are:

- PRONA (an abbreviation for National Agrarian Operations Project) is legalization of assets and is essentially a process of land administration includes; adjudication, land registration until the issuance of a certificate / proof of rights to land, and is implemented en masse. PRONA began in 1981 based on the Ministry of Home Affairs Decree No. 189 / 1981 on the National Agrarian Operations Project.
- Farmers Land Certification is a sub-component of asset legalization activities. The object of this activity is land owned / controlled by farmers, while the beneficiaries are the farmers (farmers that works on crops, horticulture, plantation, and livestock). As with other asset legalization activities, farmers land certification is essentially a process of land administration which includes adjudication, (surveying, mapping, collection of juridical data, announcements, determination / entitlements), land registration and issuance of certificates of land rights. Farmers land certification is intended to provide legal certainty for farmers land ownership, so that it can be used to develop the venture capital.
- Fishermen Land Certification is a sub-component of asset legalization activities. Fishermen land certification is land administration process which includes adjudication, land registration and issuance of certificates of land rights. The asset legalization activity is a collaboration between the National Land Agency with the Ministry of Maritime Affairs and Fisheries. The program aims to facilitate access to the strengthening of the rights in the form of land certification to the fishermen and small-scale fishermen.
- SME Land Certification is a sub-component of asset legalization activities with the small and micro entrepreneurs as beneficiaries. SME Land Certification is land administration process which includes adjudication, land registration and issuance of certificates of land rights owned / controlled by individual micro and small entrepreneurs. This program is a collaboration between the National Land Agency with the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia and the Ministry of Home Affairs. The program aims to facilitate access to the strengthening of the rights in the form of land certification to micro and small enterprises, land titling of trans migrant land, and land titling for low-income communities.
- Low-income communities land certification (abbreviated as MBR) is a sub-component of the asset legalization activities. Certification of community land is the land administration process which includes adjudication, land registration and issuance of certificates of land rights. This program is a collaboration between the National Land Agency with the Ministry of Housing and Human Settlements.

After the land legalization activities, the land certificate assets can be used as economic resources and can improve the welfare of the community. The National Land Agency also does social mapping to complement the main tasks of inventorying land authority, land ownership, land use, and land utilization to tackle the problem of urban sprawl.



### 3.3 Enhancing Urban and Peri-Urban Food Production

The pressure of population growth and rapid urban economic development faced limitations from urban land availability, and causing urban physical development to extend toward the peri-urban regions which are mainly agricultural regions. In this context, the land conversion phenomenon from agricultural land to non-agricultural land has become a problem in major cities and metropolitan areas in Indonesia, particularly in the island of Java. According to data from the Ministry of Agriculture, in 2014 the urban areas in Java underwent conversion of 85,574 hectares of land from rice field to non-agricultural land. The tendency of land conversion has been going on for a long time, especially in the late 1980s, in line with the development of large-scale residential areas and industrial estates, especially in the northern coast of Java, and lasted until now.

Nationally, the rate of land conversion from productive agricultural land into non-agriculture has reached 35,000 hectares per year. Particularly the irrigated agricultural land in Java, the rate land conversion has reached 13,400 ha / year which threatens national food security, and can also disrupt the balance of the environment (Ministry of Agriculture, 2011).

The negative impact of conversion of agricultural land to non-agricultural occurs mainly because the process happened massively and systematically. Land conversion from rice fields to industrial zones, residential areas (real estate), highways, office complex, etc, resulted in a systematic pattern of land conversion. The converted rice fields generally cover fairly vast and consolidated fields. The rice fields' conversion in a region often happens progressively: rice fields adjacent to the converted lands are usually converted following a relatively short time span with increasing area. In addition to the impact on food production, ecological harm to the surrounding rice fields includes loss of effective land to accommodate the excess water runoff that could help reduce flooding.

The growing tendency of land conversion triggered the Indonesian government to respond to these problems through a policy of limiting / controlling agricultural land conversion, with the enactment of Law No. 41 / 2009 on the Sustainable Protection of Agricultural Land (PLP2B). The basic considerations of the enactment of this law are:

- The strategic role and function of agricultural land for the Indonesian people, who are mainly agrarian-based because a large number of population rely on agriculture as their livelihood.
- Land do not only have economic value, but also social, and religious value.
- Land as a scarce natural resource because the amount is not increased, but the demand for land is increasing.
- For sustainable agricultural development, land is the principal resource in agriculture businesses, especially considering that most agriculture businesses are still dependent upon land-based agriculture.

Protection of agricultural land for food production is an inseparable part in spatial planning (Law 26/2007). In the Spatial Planning Law, the protection of agricultural land for food production is outlined in the following mandates: (1) protection of agricultural land for food production needs to be done by establishing a protected agro-food area; (2) food crop area is part of the rural area planning in the regency; (3) agricultural land for food production located in urban areas also needs protection.

Sustainable Agricultural Land (LP2B) is a field of agricultural land to be protected and developed consistently to produce staple food for self-reliance, resilience, and national food sovereignty.

According to the LP2B Law sustainable agricultural land planning should be done within sustainable food agriculture estates, sustainable food agricultural land areas, and sustainable food agriculture reserve lands. Protected areas in LP2B Law includes irrigated land, tidal marsh and non-tidal marsh land reclamation, non-irrigated productive land, and land with food production potentials. Determination of LP2B is proposed by the agency head at the regency / city level in charge of agriculture to the agency heads for spatial planning, coordinated with the relevant agencies, and approved by the regent / mayor.

Out of 500 regencies / cities in Indonesia, only about 107 regencies/cities have established LP2B in its spatial planning. This becomes a challenge for Indonesia to realize the integration of LP2B in its spatial planning at the regency/city level. Currently, regency / cities spatial plan in Java has set LP2B area covering 1,382 million hectares out of overall Javanese rice fields of 3,253 million hectares or 42.5% (Ministry of Agriculture, 2014).

The Ministry of Home Affairs Regulation No. 1/2007 on the Urban Green Open Space Planning has stipulated that urban agriculture is a form of urban green open space. In this regard, the Ministry of Agriculture has developed several models of urban agricultural use by utilizing land or open space in cities, such as creating community gardens, green roof, or vertical garden. In addition to using land or open space, there are a variety of other urban agricultural systems that can be selected for various agricultural business enterprises such as production of seeds, agricultural cultivation of ornamental plants, vegetables, fruits, livestock, and fisheries. In addition, there are also possibilities for agricultural product processing, marketing of agricultural products, as well as agro-tourism or provision of other services.



**Figure 3. 4 Urban Farming in Jakarta**

Source : [www.ziliun.com](http://www.ziliun.com)

### 3.4 Addressing Urban Mobility Challenges

Indonesia's high population growth and the number of residents who reside in urban areas led to an increase in the population that requires mobility in urban areas. The data show that several major cities in Indonesia have a large number of population and are increasing every year. The data of major cities in Indonesia and population can be seen in **Table 3.2**

**Table 3. 2 Population Number and Area of Major Indonesian Cities**

City	Population (persons)	Area (km <sup>2</sup> )
Jakarta	9,603,417	664.01
Surabaya	2,719,859	350.54
Medan	2,602,612	265
Bandung	2,182,661	167.67
Makassar	1,612,413	199.26

Source: Ministry of Home Affairs, 2013

All those major cities eventually have expanded housing into the surrounding suburban areas. Inadequate services to support mass public transport from the suburban areas to central business districts have caused reliance on private vehicles population and recycles.



**Figure 3. 5 Traffic Jam in Jakarta**

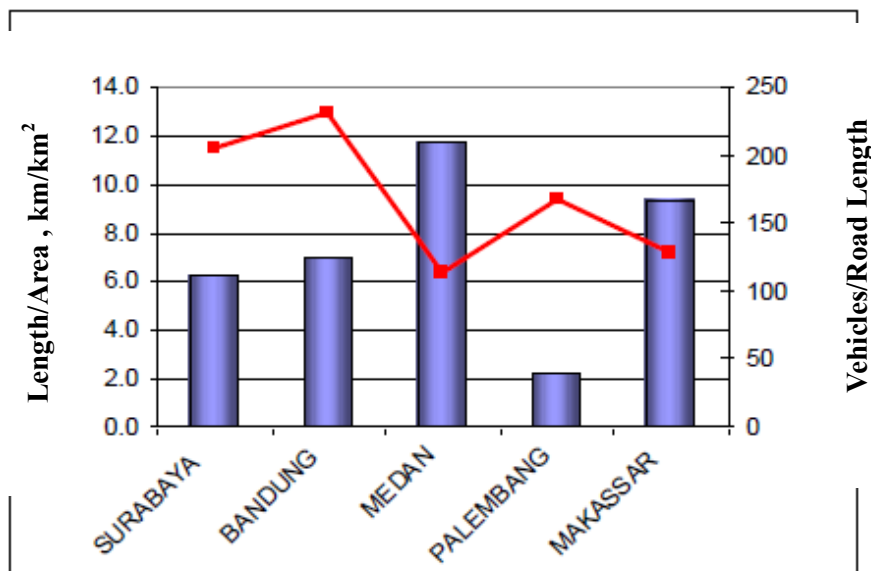
Source: Transport Authority DKI Jakarta, 2011

The urban road network covers about 15,000 km (5.2%) of the total length of the road, but it needs to accommodate almost 80% of the existing traffic volume. The ratio of road length per area in urban Indonesia generally is sufficient ( $> 5 \text{ km} / \text{km}^2$ ), however, the number of vehicles per road length is too high ( $> 100 \text{ vehicles} / \text{km}$ ). This resulted in the volume of vehicle traffic that exceeds the capacity of the road, hence a bottleneck condition, due to the narrowing of the road and conflicts that occur at the

intersections and at certain points of the road. For example, DKI Jakarta as the largest city in Indonesia only has a road ratio 6% of the total land area. Data shows that the occurrence of acute congestion happens 771 points of congestion in Jakarta in 2010. A number of other major cities also showed the same congestion trend due to an imbalance between the use of vehicles and roads to accommodate the urban mobility needs.

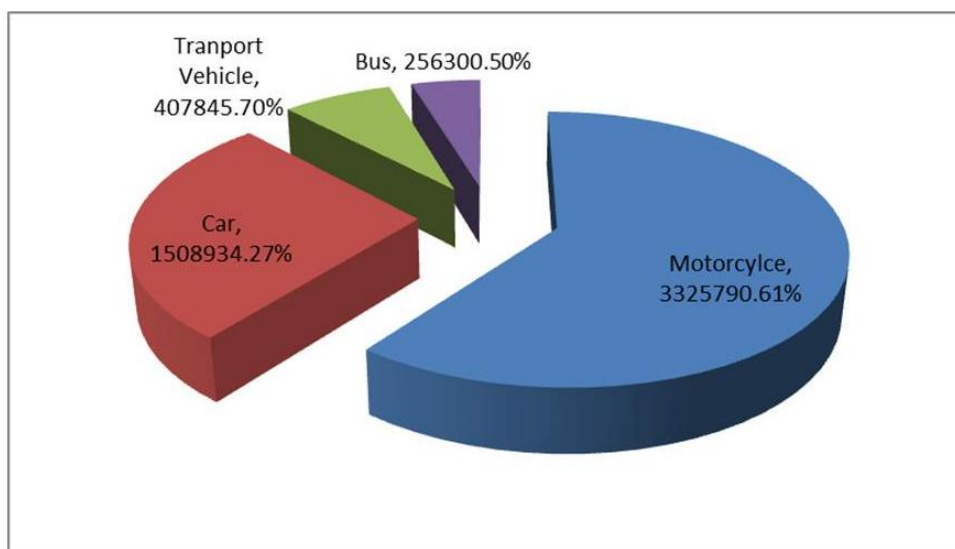
The total financial loss in big cities in Indonesia is estimated at Rp. 25.2 trillion per year. This figure is quite large when compared to the budgeted expenditure for the improvement of transport sector (Widiantono, 2008). The existing condition and the needs for urban road infrastructure in Indonesia (the ratio of road length per area indicated by the bar chart and the ratio of the number of vehicles per length of the road indicated by a line diagram) can be seen in Figure 3.13. In Jakarta alone, the composition of private vehicles has reached 88% of the total vehicles, while the number of public transport in the city of Jakarta is only 5% of total vehicles. The composition of vehicles in Jakarta in 2008 is depicted in Figure 3.14.

Currently, urban traffic is becoming more predominated by two-wheeled vehicles (61%), while the four-wheel vehicles are in the range of 39%. The growth of two-wheel vehicle in some cities has reached nearly 20% per year, while other vehicles generally only grow approximately 5-10%.



**Figure 3. 6 Existing Condition and Road Needs in Indonesian Major Cities in the Year 2008**

Source : Widiantono, 2008



**Figure 3. 7 Vehicle Composition in DKI Jakarta in the Year 2007**

Source: Widiyanto, 2008

The high level of private vehicle use in Indonesian cities is supported by subsidized fuel price by the government.

Several attempts have been made by the local government, to reduce the use of private vehicles such as the 3 in 1 policy in major streets of cities during peak hours. One example of the efforts made to reduce the level of private vehicle ownership is to establish a policy that stipulates the down-payment for motor vehicle loans at a minimum of 25% for two-wheeled vehicles, 30% for four-wheeled vehicles, and 20% for four-wheeled vehicles. This provision is stipulated in Bank Indonesia Circular No. 14/10 / DPNP dated March 15, 2012 on Risk Management for Banks Loans for Housing and Motor Vehicle. Although this effort is aimed at the financial sector resilience, it is indirectly reduce the motor vehicle ownership in Indonesia, particularly in urban areas. The higher upfront cost for vehicle loans can suppress the high growth rate of motor vehicle purchases. This will reduce the number of motor vehicles in Indonesian urban areas.

Other efforts to reduce the level of private vehicle ownership is to stipulate progressive tax for private vehicle ownership. This stipulation is outlined in Law 28 / 2009 on Local Taxes and Levies which authorizes the local governments to apply the tax rate of motor vehicles and motor vehicle tax on a progressive basis for second vehicle ownership and the next.

The Article 6 of the law stipulated that the motor vehicle tax rates is to be established by local government regulation (this shows that the authority for tax progressive rate-setting for motor vehicles is in the hands of local government), distinguishing private vehicles, vehicles for the public interest, or heavy equipment.

- For private vehicles, the ownership will be based on the name and / or address. Motor vehicle tax rates for private vehicles are defined as follows.
- The first private motor vehicle ownership, at least 1% (one percent) and a maximum of 2% (two percent).
- The second motor vehicle ownership and the next: the rates can be set progressively for at least 2% (two percent) and a maximum of 10% (ten percent).



- For vehicles of public interest include public transport, ambulance, fire brigade, social religious, social and religious institutions, Government / Military / Police, Local Government, and other vehicles that are set by the regional regulation: the motor vehicle tax rate is set at a minimum of 0.5 % (zero point five percent) and a maximum of 1% (one percent).
- For heavy equipment, motor vehicle tax rate is set at a minimum of 0.1% (zero point one percent) and a maximum of 0.2% (zero point two percent).

The first point above shows that private vehicles are taxed higher than other types of vehicles, especially for four-wheeled vehicle that has the highest tax rate up to 10%. It can indirectly reduce the intensity of the number of vehicles, especially in urban Indonesia because it would make residents to rethink about having a personal vehicle.

The progressive taxation is also determined by each local government, with different ranges. In addition to increasing the local government revenue (PAD), a progressive tax is expected to reduce the level of congestion in urban areas because it is aimed at the owners of private vehicles. Application of progressive taxation has been done by some local governments, especially provincial province has the largest urban areas in Indonesia, namely Jakarta, East Java and West Java.

Jakarta Provincial Government has implemented a progressive tax for motor vehicle on January 3, 2011. Jakarta Government revenue increased approximately 6%, or about 200 billion rupiah. Meanwhile in East Java, progressive rates apply to private motor vehicles only for four-wheel vehicle as well as two-wheel motor vehicle with cylinder size of 250 cc and above. The application of the progressive motor vehicle tax in Jakarta, East Java and West Java can be seen in **Table 3.3**.

**Table 3. 3 Progressive Tax Rates for Private Motor Vehicle in a number of Provinces in Indonesia**

Province	Progressive Tax Rate				
	First	Second	Third	Fourth	Fifth
DKI Jakarta	1,50 %	2%	2,50 %	4%	4%
Jawa Barat	1,75 %	2,25%	2,75 %	3,25%	3,75 %
Jawa Timur	1,50 %	2%	2,50 %	3%	3,50 %

Source: Government Regulation for Motor Vehicle Taxation DKI Jakarta (2010), Jawa Timur (2010), dan Jawa Barat (2011)

The government also reduces fuel subsidies for motor vehicles in the era of Presidents Susilo Bambang Yudhoyono and Joko Widodo. Based on Indef data (2014), fuel subsidies in 2009 was reduced to reach 45 trillion rupiah, but increased to reach 211 trillion rupiah in 2012 and successfully reduced again in 2013 to 199 trillion and 194 trillion in 2014 in the era of President Susilo Bambang Yudhoyono. Subsequently the fuel subsidies was further reduced by President Joko Widodo to 185 trillion in 2014 and back to 45 trillion rupiah in 2015 as described in the Republika (2014). Reduction of fuel subsidies may indirectly reduce the intensity of the number of vehicles, especially in urban Indonesia because it would make residents rethink in having a personal vehicle. The data of fuel subsidies in Indonesia in **Table 3.4**.

**Table 3. 4 Fuel Subsidy in Indonesia Year 2009-2015**

<b>Year</b>	<b>Fuel Subsidy (Rupiah Trillion)</b>
2009	45,039
2010	82,351
2011	165,161
2012	211,895
2013 (SBY)	199,85
2014 (Jokowi)	185
Planned 2015 (Jokowi)	45

Source: Indef, 2014 dan Republika, 2014

Second, as mentioned earlier, it is known that one of the problems and challenges in accommodating mobility is the existing supply of transportation infrastructure in urban areas that have not been able to accommodate the mobility needs of the urban population. Internal urban mobility needs to be accommodated as a consequence of the development of social and economic activities for development of the region.

Several attempts have been made to accommodate the needs of the urban mobility, such as made the use of mass transit. Some of the development of new transport systems in urban areas include the development of mass rapid transportation (MRT) in the form of a monorail and bus rapid transportation (BRT). Several major cities in Indonesia is planning to operate the MRT, namely Bandung, Surabaya, Yogyakarta and Jakarta. In Bandung, the City Government of Bandung signed of a memorandum of understanding (MoU) for pre-feasibility study of MRT with the private sector. The MRT will be built along a 12 km corridor from north to the south of the city of Bandung. The MRT will connect the entire area of Bandung from the city center (Dago) all the way to Bandung regency, Soreang, and Cimahi. The investments in MRT project is estimated at 4 trillion rupiah. The project was financed through public and private partnership (PPP), where private investors from China is slated as the investors. However, until now there has been no progress in the development of MRT in Bandung.

The city of Yogyakarta is planning to build and operate the MRT to support the available modes of transportation after the new airport is fully constructed. The MRT will be built along the 30-40 km circle around the city of Yogyakarta and is connected to the Prambanan area. The value of investments in this MRT project is estimated at 12 trillion rupiah. In contrast to the MRT project in Bandung, to date the Yogyakarta MRT project is still about to start the pre-feasibility study stage.

Surabaya also plans to build the MRT and the tram to accommodate the urban population mobility. The MRT project in Surabaya will receive initial funding of 30 billion rupiah from the national state budget before finally spurred onto the mechanism of public and private partnership (PPP). The MRT starts with lines that links Gubeng station to Juanda Airport in Waru. The MRT construction in Surabaya is planned to be expanded so that it is not only serving the Surabaya-Juanda, but also several

other segments along the 110 km to integrate with the various cities in East Java. For the next phase, the project includes the construction of the double track MRT for the Kandangan-Surabaya-Lamongan segment, Surabaya-Mojokerto, Waru-Sidoarjo-Porong, Sidoarjo-Bangil, and Pasuruan. To date, the project has entered the first phase, which is the double track development program and elevated rail line segment from Kandangan Surabaya to Sidoarjo Waru with a total of 42 km.

Jakarta will build the MRT for metropolitan coverage Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi) integrated with the North South Corridor MRT. To date, the Jakarta MRT has reached a stage of constructing monorail columns but it was stopped due to lack of funding. Therefore, the DKI Jakarta government will convert this MRT project into LRT (light rapid transportation), since there is no clear development direction from the private investors. The local government plans to build an LRT facilities which will connect several nodes at the center of Jakarta, including along Jalan Asia Afrika, Senayan, and Jalan HR Rasuna Said, Kuningan.

Meanwhile, there are issues that need to be considered regarding the possibility of construction delay of the MRT due to land acquisition. To date, infrastructure development projects are still hampered by land acquisition, delaying its implementation. This is because the Land Acquisition Law for Public Interest Development and the Presidential Decree No. 71 / 2012 on Land Acquisition for Public Interest Development cannot be fully implemented due its conflict with the National Land Agency (BPN) regulation related to the use of state land. Based on the circular by the National Land Agency of February 2011, the Governor must seek permission to the related Ministries for projects that occurs in the state land, prior to issuing the location determination letter. This means that the planning and land administration is not yet well coordinated. With a better integration between land administration institutions with the spatial planning, it is expected that land planning and administration will become integrated so that it will help accelerate MRT construction to accommodate the mobility of the urban population of Indonesia.

The MRT development is initiated to accommodate the internal mobility of the population in the core city and the adjacent regions. The MRT development in the big cities advances in different rates, from initial feasibility study to the re-planning phase.

Meanwhile BRT has also been developed in several cities in Indonesia such as Jakarta, Bali, Bandar Lampung, Semarang, and Bandung. Some of the fairly successful implementation are exemplified Jakarta, Bali, Yogyakarta, and Bandar Lampung. Jakarta has built 15 corridor, serving not only the internal mobility of the population, but also to serve the mobility of the population residing in suburban areas of Jakarta. Meanwhile Bali also developed BRT that serves Sarbagita (Denpasar, Badung, Gianyar and Tabanan) metropolitan area. Yogyakarta is also developing BRT to serve greater urban areas, known as Kartamantul (Yogyakarta, Sleman and Bantul). Bandar Lampung is developing BRT with 10 routes to serve the within the Bandar Lampung city only.

Meanwhile, the BRT development in Semarang and Bandung is not proceeding well. In Semarang, there are some obstacles encountered in the operation of BRT with the absence of dedicated lanes for BRT, social conflict with other public transport modes, and difficulties in the construction of shelters. The absence of dedicated lanes for BRT only increases the volume of the vehicle, and reducing the capacity of the road network in the city of Semarang. Moreover, other public transportation modes opposed the presence of BRT, especially when the routes coincide with BRT, and this caused social problems. This is overcome by offering some options for the public transport workers to participate in the BRT or convert its services into a BRT feeder. Furthermore Semarang government encountered obstacles in the construction of shelters due to the opposition from the shopping centers, since the



shelter will obstruct the shopping centers. So that these constraints makes the implementation of BRT in Semarang not going very well.

The BRT in Bandung faces problems in operation, namely the lack of allocation of funds from the local government budget which resulted in poor bus acquisition and construction of shelters. Coupled with physical limitations (Bandung only has limited road space) it seemed that the implementation of Trans Metro Bandung is somewhat forced, and actually increased the volume of vehicles in the corridors due to the absence of a dedicated lane for BRT. The Trans Metro Bandung does not seem to answer the problems and needs of the community. With these constraints the BRT in Bandung is not implemented well. Major obstacles in the operation of BRT are lack of funding, social conflict with existing modes of transport, and lack of road space for dedicated BRT lane.

Attempts have been made to accommodate the needs of the urban transport mobility. Efforts are made to direct the use of mass transit in meeting the mobility needs for inter-urban population. Efforts have been made to develop transportation infrastructure to serve the mobility of people across different urban areas, for example, the development of a new airport and the airport train, super-fast train between cities and double track railways, and the trans-Java road network.

Development of a new airport has been done in Medan, Balikpapan, and Makassar. In Medan, Kuala Namu International Airport has been constructed with a passenger capacity of 8.1 million people per year. This service is also integrated with the train that connects the train station in Medan to the airport and takes about 35 minutes within 40 km. Meanwhile, in Makassar, the expansion of Sultan Hasanuddin International Airport reaches the passenger capacity of 8 million people per year and is also integrated with the airport train which connects the city of Makassar. The expansion Sepinggan International Airport in Balikpapan reached the capacity 1.5 million people per year. This will facilitate inter-urban population mobility in Indonesia and global urban traffic between major cities in Indonesia and abroad.

Inter-urban mobility will be facilitated by the development plan super-fast train route Jakarta-Bandung - Cirebon - Surabaya which will take about 3 hours. Double track railway will also improve inter-urban mobility such as the one developed in the northern stretch of Java which passes through several urban areas such as Jakarta, Semarang and Surabaya. Indonesian government cooperates with the Japanese Government in developing the super-fast train and is currently reviewing the project financing scheme. There are three prepared financing scheme: the collaboration between the government and the private sector (public private partnership / PPP), state funds, and foreign loans from Japan.

This development is done to further accelerate access for inter-urban mobility. The next development will be to build double-track railway in the south of Java. The Ministry of Transportation constructed a few double track segments in the southbound lanes namely Cirebon-Prupuk, Prupuk-Purwokerto, Purwokerto-Kutoarjo and Solo-Madiun. Double track construction in the south line has been started from Cirebon to Purwokerto. To date, the ongoing construction of double track railway are in Purwokerto-Kutoarjo, while the double track railway is already in operation between Prupuk-Purwokerto. The total cost to build a double track in the southern region amounted around 9.3 trillion rupiah. Additionally, the government also plans to create a double track railway in Banten province, namely in Kotamaja up to the Merak. Double track railways will be built up to the Merak to improve industrial development area that will generate local economic activities in Cilegon. Double track railway development is planned to be completed in all train lines between Jakarta-Surabaya both in the

northern segment and the south in the Year in 2017 to ensure smooth transportation of passengers and logistics. This will facilitate inter-urban population mobility in Indonesia.

Mobility will be further facilitated by the construction of nine Trans-Java toll roads segments. However the Trans Java project is still constrained by the slow land acquisition process. Among the 9 sections, only one segment completed land acquisition phase, namely the Cikampek-Palimanan segment for 116 km..

Other efforts to facilitate inter-urban mobility with archipelagic geographical conditions is to construct ports and “marine highway” connecting several islands. This is a top priority of development in the era of the leadership of President Joko Widodo by reorienting Indonesia as a maritime country. Suramadu bridge construction which connects Java Island and Madura Island is an example in expanding connectivity between islands. There are more plans to build bridges between other small islands to increase mobility and equalize development.

### **3.5 Improving Technical Capacity to Plan and Manage Cities**

The Spatial Planning Coordination Board (BKPR) from national to regency / city level, is expected to ensure continuity and consistency spatial planning from the national to local levels. Its implementation is carried out by the agency or working unit who is also a member of BKPR. Therefore, BKPR members should have the technical capacity. To build the technical capacity it is necessary to appoint, assign and train civil servants elected as a Spatial Planning Investigator Civil Service (PPNS) officers.

In order to support the implementation of effective spatial planning, it is necessary to have institutions with a strategic role in urban spatial planning activities, in all the aspect of planning, utilization, and control. There are some institutions that have been established in order to improve the quality of spatial planning in Indonesia, such as BKPRN and Spatial Planning PPNS. National Spatial Planning Coordinating Board (BKPRN) is an ad hoc institution that plays a role in improving the capacity of government institutions in the implementation of spatial planning. The Spatial Planning PPNS officers are assigned to investigate criminal violations by government officials in the field of spatial planning.

#### ***National Spatial Planning Coordinating Board (BKPRN)***

The institutional technical capacity in planning in Indonesia is driven through the Presidential Decree No. 4 / 2009 on the National Spatial Planning Coordinating Board (BKPRN) and Ministry of Home Affairs Regulation No. 50 /2009 on Guidelines for the Regional Spatial Planning Coordination. BKPRN an ad hoc institution and plays a role in improving the institutional capacity of the central government and local governments in the implementation of spatial planning. Additionally, BKPRN is in charge of making norms, standards, and procedures, monitoring and evaluation, supervision, facilitation, and organizing the affairs of government in other areas of the spatial planning. According to the Presidential Decree No. 4 / 2009, BKPRN have a duty to coordinate:

Based on the BKPRN progress report 2014-2015, there were a series of strategic issues related to the spatial planning discussed by BKPRN, such as the preparation of policies and legislation and settlement of disputes and conflicts of spatial planning. The Spatial Planning Investigator Civil Service (PPNS) officers is regulated in Law No.26 / 2007 on the Spatial Planning. This law requires the establishment of Spatial Planning PPNS that has been described by Government Regulation 15/2010 on the Implementation of Spatial Planning. Spatial Planning PPNS officers are mandated to perform

supervisory control space over spatial utilization by overseeing spatial conformance to the spatial planning legislation and spatial utilization permit issued. Based on Minister of Public Works Regulation No. 13 / 2009 on the PPNS Spatial Planning, the officers are mandated to uphold the law in the implementation of spatial planning, and enforce legal actions against criminal offenses of spatial planning.

Spatial Planning PPNS is an instrument for controlling spatial utilization through monitoring and investigation of criminal offenses against violations space planning. Spatial Planning PPNS spread across 33 provinces, 128 regencies, and 36 cities. Based 2014 data, there are still 6.06% provinces without Spatial Planning PPNS, 57.39% Regencies without Spatial Planning PPNS, and 14.89% Cities without Spatial Planning PPNS. The delay in the establishment Spatial PPNS is due to not prioritizing the spatial planning aspects in the local government. Therefore, these institutions have not been fully able to improve the technical institutional capacity in managing urban areas in Indonesia.

### ***Inter-regional cooperation in the Metropolitan area***

There are a number of metropolitan management agencies such as Sekber Kartamantul for Yogyakarta, Sleman and Bantul and BKSP Jabodetabekjur for Jakarta, Bogor, Depok, Tangerang, Bekasi, and Cianjur. For Kartamantul metropolitan region, the agency (Sekber Kartamantul), has successfully demonstrated the development of cross-border infrastructure to cope with the expansion of functional urban areas (Hudalah, Word, and Woltjer, 2013). In the face of the decentralization phenomenon, Firman (2011) describes the importance of leadership, innovation capacity and commitment of local leaders in tapping into the opportunities of the decentralized approach to the development of the region. Emergence from recognized city leaders and nonprofit organizations in the area of urban management is an example of this phenomenon.

Joint Secretariat Yogyakarta, Sleman and Bantul (Sekber Kartamantul) is an innovative collaboration between the three local government consisting of the City of Yogyakarta, Sleman Regency, and the Bantul Regency. Sekber Kartamantul emerged as a response to the decentralization process which requires local governments to devote more attention to providing the public with better services. Common interest is also the reason the establishment of this cooperation (Sutrisno, 2004).

The main objective is the establishment of the Joint Secretariat Kartamantul is to balance and harmonize the management and infrastructure development in the three urban and rural local governments. They agreed to improve coordination in the planning, implementation, monitoring and evaluation of the management of urban infrastructure in the Yogyakarta Urban Agglomeration area. The establishment Sekber Kartamantul is also to promote the efficient use of resources to optimize development for a better welfare of the society in the Metropolitan Yogyakarta area. Cooperation between regions are managed by the Joint Secretariat Kartamantul that works in three tiers of management level (Sutrisno, 2004), based on the authority. The first tier is reserved for the Mayor and Regents, and is authorized to develop cooperation in the implementation of the policy. The second tier is filled by top level bureaucrats, namely the Regional Secretariat, Head of Planning Agency, and the relevant Head of Department or Agency of three local governments that serves to formulate the next steps on the policy. The third tier is filled by bureaucrats, who works both in implementation and technical aspects.

### ***Jabodetabekjur Area***

The urban management agency of Jabodetabekjur (BKSP Jabodetabekjur) is tasked to coordinate regional development that is still partially implemented in each administrative region. Motivated by

ecological linkages, hydrological and inter-regional spatial upstream region (rural) and downstream (urban) Greater Jakarta Metropolitan, it is necessary to have an effective regional cooperation in governing the coordination of the division of roles in each region, which aims to control the annual flooding problem. Jabodetabek Development Cooperation Agency (BKSP) Jakarta, Bogor, Depok, Tangerang, Bekasi, Puncak and Cianjur is the agency that coordinates the formulation of development cooperation. Development Cooperation Agency (BKSP) which is a cooperation body formed specifically by Presidential Decree No. 13 / 1976 is devoted to the development and integrated management of the Greater Jakarta Metropolitan Region. BKSP Jabodetabek chaired in rotation by the Governor of Jakarta, West Java and Banten. So far, the governments in the Greater Jakarta Metropolitan area regularly coordinate through the Development Cooperation Agency (BKSP) in handling the affairs of cross-urban and rural areas, one of which related to the affairs of resource management and spatial planning. The results are generally in the form of synchronization of agreements in the spatial planning and program planning of the respective local government. In the scope of inter-local-government management coordination, BKSP assumes the role of the preparation of policy formulation materials, which is then to be discussed by the Head of Local Government or the representatives. However, this cooperation is not considered successful yet in the aspect of increasing technical capacity in planning and managing the greater metropolitan area. This is because coordinating agency lacks authority and special directive to manage regional urban development of the metropolitan area. This causes an atmosphere of distrust among the local governments.

### ***The Bandung Raya Metropolitan Area***

In addition, Bandung Raya Metropolitan area is coordinated under West Java Province Metropolitan Development Management (WJPMMDM) and establishment of agency for Regional Waste Management Centers (BPSR) to manage the waste created by the Government of West Java Province. Unlike the Greater Jakarta Metropolitan area and Kartamantul, current cooperation undertaken in the area of the Metropolitan Bandung Raya is in the form of coordination between regencies / city, initiated by the Government of West Java Province, but not in the form of cooperation agencies. West Java Provincial Government formed a team for accelerating development of the metropolitan area, namely the WJPMMDM team, whose one of the focus includes the Metropolitan area of Bandung Raya. WJPMMDM team is a special team formed by the Governor of West Java Province and its members is a combination of the Head Office in West Java Province, chaired by the Regional Secretariat of West Java Province. WJPMMDM team is tasked to establish the concept of development planning in West Java, one of the Metropolitan area of Bandung Raya. In general WJPMMDM team is the catalyst for accelerating the development, management, and communication between each Regencies/ Cities related to spatial planning in the Metropolitan area of Bandung Raya.

Currently, the planning Metropolitan Bandung Raya region falls under the authority of the province of West Java. To perform synergistic planning, the relevant stakeholders need to be involved, especially local government of the Metropolitan area of Bandung Raya. In a decentralized system, externalities and transaction costs play an important role in planning and decision-making. In other words, transaction costs includes communication, interaction, and relevant information gathering (Miharja and Woltjer, 2010).

There are also other forms of cooperation in the field of waste management in West Java. In 2007, the Government of West Java Province established a body that handles the cooperation program within Bandung Metropolitan Area, named West Java Waste Management Center (P3JB). The agency was formed after a Leuwigajah landfill landslides disaster in 2005 which triggered 'waste emergency' situation in Bandung. The agency is tasked to manage waste in the Sarimukti landfill, looking for a new

landfill site, draft a concept for waste management, and facilitate the Bandung Raya local governments to enter into an agreement. In 2010, P3JB was renamed as Regional Waste Management Center (BPSR). BPSR are under the organizational structure of the Housing and Settlements Agency in West Java. BPSR technically implement the operational concept that has been agreed upon by the Regencies/City in the Metropolitan Region of Bandung Raya. Statement of commitment on the planning process and systematic improvement of performance and implementation in order to achieve effectiveness, efficiency and productivity in the implementation of the regional waste management in West Java were included in the BPSR Strategic Plan 2010 - 2015. The key task of BPSR is to carry out some functions of the Housing and Settlements Agencies in the field of waste management in the West Java region.





## CHAPTER 4 ENVIRONMENT AND URBANIZATION

As a developing country, Indonesia is considered to have surplus of natural resources, unexploited natural habitat that can be used for capital accumulation for development. Government of Indonesia has calculated the ecological footprint of Indonesia in 2010. The country's biocapacity is surplus condition. Following the Brundtland commission in 1992 that of 100% of biocapacity, only 88% of it can be utilized and the rest is allocated for bio diversity (Ministry of Public Work, Govt of Indonesia, 2010). In the case of Indonesia, overall the ecological footprint is considered surplus at 0.05 GHa/person. This number is not considered to be high. Looking at the regional level or island basis, the ecological footprint of many islands are on the surplus side. In Java, Bali and part of Nusa Tenggara, the ecological footprint is on the deficit side. Aside from being higher number of residents in comparison to their land areas, the agricultural sector has been the major use of land in these islands. Other areas whose

### 4.1 Climate Change in Urban Areas

As an archipelagic country, Indonesia get impacts of out climate change happening the at the global scale. It is predicted that Indonesia will get impacts of climate change, in the form of intensive rainfall and sea level rise. Indonesian government has pledged to reduce CO<sub>2</sub> emission target to 26% by 2020 without external intervention and reaching to 29% by 2030. National Action Plan on Green House Emission (GHG) was promulgated through Perpres No 61/2011 and its inventory through Perpres 71/2011. Public funding was increasingly directed to the National board of Meteorology, Climatology and Geophysics (BMKG) and Ministry of Environment, especially for monitoring air pollution.

With increasingly population live in urban areas, cities potentially become the second sources of climate change that contribute towards increasing volume of CO<sub>2</sub> in the atmosphere. BMKG (Metereology, Climatology, and Geophysics Board of Indonesia) has monitored the level of CO<sub>2</sub> and methane (CH<sub>4</sub>) in selected cities of Indonesia, as presented in the Graphs below. The range between 390-410 is considered high but safe. So was the CH<sub>4</sub> concentration, What is being monitored is the trend of these types of gases.



Figure 4. 1 Concentration of CO<sub>2</sub> (ppm) in selected Indonesian Cities – May 2015

Source: BMKG, Indonesia, 2015





#### Box 4. 1 Mudflow in East Java, 2006-2015



Picture Mudflow in Sidoarjo Regency, 2006

Source: [http://indonesiepage.nl/fotoboek/39/008/zicht\\_vanuit\\_de\\_lucht.php](http://indonesiepage.nl/fotoboek/39/008/zicht_vanuit_de_lucht.php)

In September 2006, after the earthquake in Yogyakarta of 6,3 Richter scale that residents lived closeby to gas exploitation heard a sound that leads to their evacuation. Mudflow of average 10.000 – 15.000 km<sup>3</sup>/day began to flood the areas of 600 hectares which contain 11241 buildings, 362 hectares of rice fields in 3 sub districts and 12 villages. It displaces 397 000 people. The cause of disaster is not solely blamed to earthquake. The location of drilling violates the safety standard violates the Indonesia National Standard Agency Regulation no. 13-6910-2002 that it is supposed to be more than 100 meters from the settlements, and public infrastructure. Added to this, incompetent drilling company was to be blamed for improper conduct of the drilling. Mudflow is stated as natural disaster by the Supreme Court in 2009, and 6,7 trillion rupiahs of public funding has been poured (Tampubolon, 2013). Private sector continues to be held responsible for the compensation in areas that are not considered to be affected by mudflows.

Commitment to use new and renewable energy enter into the policies as a part of emission reduction target. The government pledges to transform its sources of energy to 23% coming from new and renewable sources by 2025. Its local plan has yet to be implemented. Many initiatives are oriented itself toward community based initiatives using simple technologies. Less is involved that include innovation in technology that improve even change the lifestyle of the communities. Some households are encouraged to use solar panel as a source of electricity. In rural areas, waste to energy installation plants are encouraged to reduce the impact of dungs in the form of methane level. Government programs such as Desa Mandiri Energi (Energy independent village) are noted. In urban areas, program such as waste to energy plants often get rejection from the public.

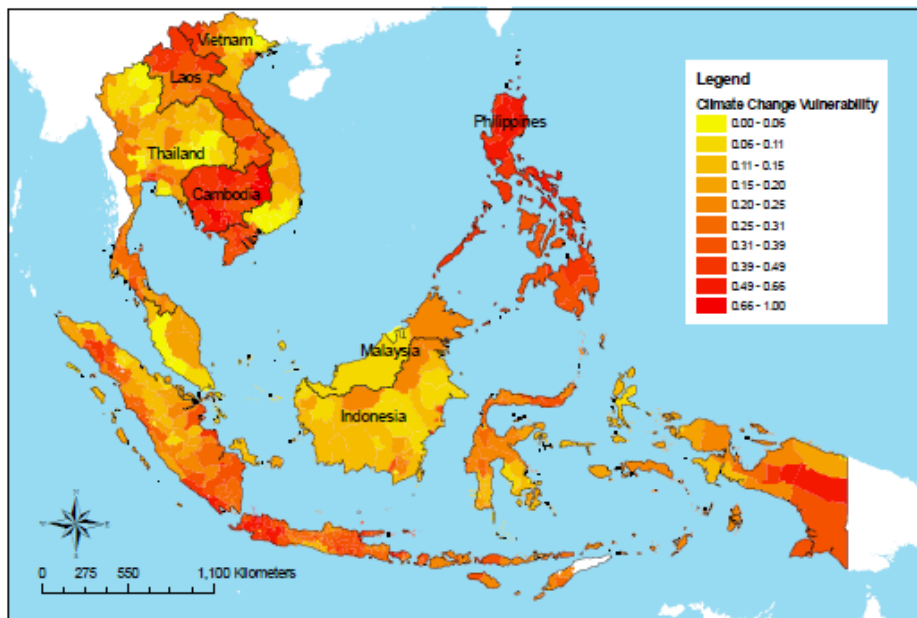
If cities are expected to be innovative and take more advanced steps than the rest of the countries, it is the municipalities that should be a leader in cutting emissiosns. Creating a so called low- or zero-emission cities -- among the only ways to avoid dangerous climate change if the objective is to cut GHG emissions 80 percent below 1990 levels by 2050, the target set by the Intergovernmental Panel on Climate Change -- more revolutionary changes are needed.

Many cities are encouraged to initiate their own strategies and actions towards reducing the emission. Strategies promoted includes the initiation to develop green building codes for offices and households. Others are on strategies to increase the use of mass transportation, reducing solid waste.

This is not only mainstream in terms of the choices for urban areas but limit the arrangement of built up areas that is seen as efficient and effective to reduce emission level.

The government of Indonesia is seen as fast in adapting international commitment on climate change. Since 2007, there is already National action plan on Mitigation and Adaptation on Climate Change, following National Action Plan on Green House Effects. Such action plan at the national level is to be responded by creating the action plans at the local level. It was not as much promoted. The latest RAN API 2014 is promoted so that the local governments is to develop local version of the action plans. This is especially for cities that will be affected by climate changes. These cities are coastal cities, high density cities, disaster prone cities.

Globally, Indonesia is affected by climate change through variation of rainfall, and geographical elevation, rather than from temperature changes. Rainfall is a major climate parameter in tropical countries such as Indonesia. While temperature parameters fluctuate at monthly variation of 1° Celsius each month, lower than daily variation of around 5° – 7° Celsius. Spatial temperature variations are more influenced by elevation, with the preposition that temperature declines by 1° C for each 100 meter of elevation.



**Figure 4. 3 Map of Vulnerability from Climate Change in Southeast Asia**

Average temperature increase in large cities of Indonesia such as Jakarta can be higher than other areas of Indonesia. The phenomenon of urban heat island (UHI) takes place that influence the average temperature of the cities. During June until August (JJA) UHI in DKI Jakarta increase by about 2° C in the last 50 years.

The oceans in Indonesia, geographically affect the climate and temperature in Indonesia. Indonesia is the only country located in the encountering between two oceans: Pacific and Indian. Indonesian through flow (Arus Lintas Indonesia/Arlindo) is a part of the world through flow that connects Pacific ocean to the Indian ocean through Indonesian sea. Indonesian through flow is an important part of the world climate change, which bring warm air from Pacific ocean to the Indian ocean via Makassar strait, Lombok strait, Timor sea, Ombai Strait and Lifamatola.

On the west side of Indonesia, east Indian oceans (close to west side of Sumatera island, South side of Java and Nusa Tenggara islands) is affected by ocean activities in Indian ocean or known as Indian Ocean Dipole (IOD). The difference between sea surface temperature in Indian ocean and sea surface temperature in the west side of Sumatera island indicates such phenomena. If the index reaches negative (below minus one) it means that temperature in the middle of Indian Ocean is warmer than in western side of Sumatera Island, which indicates that the west side of Indonesia will face drought. On the other hand, if it is not negative that means high rainfall will reach the west side of Indonesia.

Floods can be categorized as the impact of variation of temperature which causes problems in large cities of Indonesia, such as coastal cities located in north side of Java island. In these cities, floods are often caused by combination of factors such as rainfall between upstream and downstream rivers and sea level rise. Long term sea level rise as a result of global warming and land subsidence also contribute to floods in coastal areas. The average growth of sea level rise in coastal and marine area of Indonesia is between 0.73 – 0.76 cm annually. The coastal area vulnerable to sea level rise is located in south Kalimantan, South Sulawesi, and small islands.

Coastal areas is also vulnerable to erosion and acccession, indicated by sloping beaches, high vulnerability level of beach geomorphological factor and high tidal wave. The example of this is in coastal areas of Banten – DKI Jakarta – West Java, parts of Central Java, Surabaya, and Seribu archipelago, Delta of Musi river and coastal area of North Sumatera, part of coastal area of West Kalimantan and coastal area of Merauke.

Deforestation in Indonesia is considered to be the leading cause of climate change, has led the government to execute Land Use, and Land Use Change on Forestry (LULUCF) by instituting moratorium on clearing the primary forest, and by prohibiting the conversion of peat land between 2011-2016. Major efforts have been in place to protect and conserve the remaining forests, reducing forest degradation, restoring ecosystem functions. The practice of sustainable forest management is promoted, particularly through social forestry, where local /indigenous people become the main stakeholders. The overturn by the Constitution Court in 2012 on that indigenous people can lay claim on forest land where they practice their customary rights, has opened more avenues toward more collaborative sustainable forest practice. Practice of opening peat land for plantation, continue to happen. As permits have been given years ahead by the local governments. Land clearing of peat moss follows that of dry land, which is slash and burn. As Law No 32/2009 on Protection and Conservation of the Environment, allows for slash and burn, if conducted for two hectares of land<sup>17</sup>. Slash and burn becomes a practice by permit-owned corporation/private sector. It is a cheap alternative to high cost technology-based land clearing. If properly practice, indigenous /local people practice on slash and burn has limited impacts. However, when corporation/private sector did slash and burn for land clearing, especially on peat land, the impacts have been devastating. For the last eighteen years (1997-2015) haze pollution, as a result, has created uproars between Indonesia and neighbouring countries, such as Singapore and Malaysia. Such pollution transported to urban areas, blanketing the whole provinces in Sumatera, especially Riau, Jambi and South Sumatera, including neighbouring countries. Haze pollution has reduced visibilities that halt the air transportation, close schools and offices, and require people to stay at home. In 2015, haze pollution reduce urban activities in cities such as Pekanbaru, Jambi, Palembang, and smaller cities surrounding it, for two straight months. Its impacts, have limited

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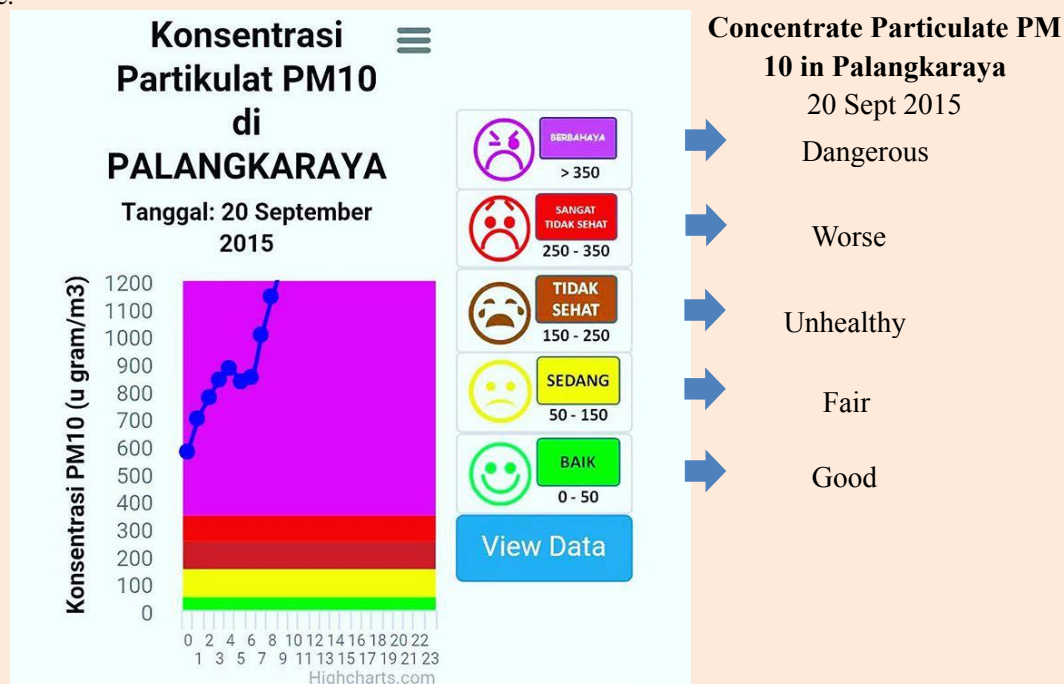
<sup>17</sup> Law No 32/2009 on Protection and Conservation of the Environment, in the explanation of Article 69. 2. For the purposes of practicing customary law, it is allowed to engage in slash and burn with a maximum of 2 hectare of land per family, in any given time.

air transportation for the neighbouring provinces whose practice of slash and burn is unknown. In Kalimantan island, haze pollution produces similar negative impacts on cities and its residents.

#### Box 4. 2 Haze Pollution from forest fire in Indonesia, 2015

For more than two months, haze pollution caused by forest fire has blanketed thw island of Sumatera and Kalimantan, and its surrounding areas, including other countries, such as Malaysia dan Singapore. A prolonged dry period, as a result of El Nino, has led to expansion of forest fire to be haze pollution, that affect not only cities, but also natural habitats and animals such as orang utan. The human cost is high including around 19 people have died and an estimated 500,000 cases of respiratory tract infections have been reported since the start of the fires. It's estimated that the fires could cause more than 100,000 premature deaths in the region. Financial damage to the region's economy is still being counted, but the Indonesian government's own estimates suggest it could be as high as \$47bn (Balch, 2015).

Residents in several cities in Sumatera and Kalimantan have to endure being in the haze. Schools are closed intermittently, and workers have to take time off when the pollution gOTTEN worse. These residents educate themselves to monitor the level of particulates in the air by the hour, of their respective cities. Government websites are used to track the level of air pollution (Indeks Standard Pencemaran Udara/ISPU). Most of the times, their air pollution reach a level of potentially damage to breath in (300-3000 ppm). While some called as ecological disaster of the times, it also calls for crime against humanity, as there are millions of people suffered in silence.



Source: (Jumani, 2015)

## 4.2 Disaster Management

As a country located in the Ring of Fire, Indonesia has many incidence of natural disasters. Succesfull experiences on Rehabilitation and Reconstruction in Aceh 2005-2008 and increasing incidence of disaster in the country, leads to the creation of Law Number 24/2007 on Disaster Management. Such Law is designed to expand the understanding, practical knowledge and action on disaster risk reduction and its management. The highlight is on the increasing capacity of local governments to take public action in the event of disaster, and initiate a process of prevention,

preparedness, rehabilitation and reconstruction. This approach is a departure from the previous ones which emphasize on the emergency management. Awareness of disaster management has increased as a result. Almost all municipalities in Indonesia has local disaster management agencies especially to deal with local scale and more frequent disasters such as fire, floods and landslides.

Other types of disasters such as volcano eruption, earthquakes and tsunami are monitored through national level agencies. The central government also have allocated more funding for National Meteorological, Geophysics and Volcanoe agency (BMKG) in order to have a capacity to monitor at the local levels. About 96% of disaster types take place in Indonesia is *hydro-meteorology*, such as floods, landslides, storms and tidal waves. With increasing level of urbanization, during the month of January 2013, BNPB notes that there are 36 times of floods which cause 61 died, and 110.129 have to move houses. While there are 25 incidents of landslides that cause 40 died, 42 incidents of storm that causes three died, 5200 homes destroyed, several public facilities destroyed as well.

It is not the hazards that cause hardships level of urbanization has led to people living in disaster prone areas, especially when high density population area emerged. It is not only that but also the preparedness of the communities when affected by disaster remains low. Added to this is the infrastructure needed for evacuation, for emergency management. All these add to the increased risk toward disaster.

The ability and the capacity to respond to disaster incidences have improved. This is not only because of the local government capacity, but also the involvement of the communities, NGOs and even private sectors. Such non governmental entity plays a major roles in mobilizing the resources, capacity and knowledge toward the incidence of disasters. Semi NGO such as Indonesian Red Cross, National Search and Rescue Agency also plays apart. Religious organizations are more involved in such humanitarian activities with no affiliation towards vicims of disasters.

At the national level, BNPB has introduced disaster preparedness as well as emergency management programs to the local level. Between 2012 and 2014, about Rp.180 billion has been used to help with the local governments to deal with disasters. BNPB also develops contingency plans for floods and landslides at the national level, and coordinate with other ministries and boards to engage in disaster risk reduction.

Policies on disaster management in the period of 2010-2014 are:

- Implementation of disaster management needs to be well planned, guided, coordinated, integrated, comprehensive, and accountable;
- Awareness towards understanding, capacity, and preparedness on disaster management through emergency management;
- Completion of emergency management in post disaster areas in quick, accurate, effective and coordinative manners;
- Completion of rehabilitating physical and non physical infrastructure in post disaster areas in integrative and comprehensive manner.

In many cities, disaster preparedness towards floods has been introduced through constructing infiltration wells and *biopori*. The result is still limited. Other efforts such as *Rain Water Harvesting* (RWH) in each household are also introduced in flood prone areas. These concepts have not been introduced *en-masse* with consideration that such appropriate technology requires contextualization of

the movement. This movement is not only to reduce flood risk but also to ensure clean water supply in urban areas. One example of successful post disaster reconstruction is Rekompak

#### **Box 4. 3 Rekompak – Community Based Post Disaster Reconstruction**

The Government of Indonesia (GOI) is widely recognized for its efficient and effective management of post-disaster reconstruction in Aceh, Nias, and Java, including the recovery of housing and community infrastructure. From the beginning, reconstruction support was strongly led by GOI and closely coordinated with local governments. GOI worked through line ministries to coordinate and implement the reconstruction program. The Rekompak approach is flexible to adapt to local needs and contexts, such as helping communities rebuild traditional architecture that was a distinctive feature of the Kota Gede neighbourhood in Yogyakarta. Rekompak provided manuals to communities on preserving cultural architectural heritage.

Rekompak contributes to future local development through the cadre of skilled community workers it trained and employed as facilitators. The project was a training ground for facilitators to learn the Community Driven Development approach, appropriate construction techniques and productive interaction with communities. Some former Rekompak facilitators have become civil servants with a store of practical experience working with communities.

Rekompak invested in capacity strengthening at every level of government from local to national to ensure sustainability of achievements and proper maintenance of project assets. Rekompak teams worked with local government agencies such as the Provincial Disaster Management Agency (Badan Penanggulangan Bencana Daerah/BPBD), providing technical assistance, training and support for institutions tasked with disaster risk reduction and preparedness throughout project implementation. The community planning processes strengthened the capacity not just of communities, but also of local governments to engage in and support community-level planning.

At the national level, the Ministry of Public Works (now the Ministry of Public Works and Housing) has developed a model housing reconstruction program recognized nationally and internationally through its direct hands-on experience implementing Rekompak in Aceh, Java, and other locations across Indonesia.

Rekompak's success demonstrated that community driven approaches can be successful in post-disaster and post-conflict situations. The project broke new ground: it took significant risks where huge stakes were involved. Rekompak worked through government systems using a community-driven approach and entrusted large sums of money into community hands during difficult times, and, in the case of Aceh, in a high-profile and politically charged situation.



**Rekompak Community Meeting**

*(Source: [www.rekompakjogja.blogspot.com](http://www.rekompakjogja.blogspot.com))*



### 4.3 Reducing Traffic Congestion

In Indonesia, public transportation in urban areas, including in municipalities, for a long time, relies on privately owned vehicles or private companies, operating as public transportation. Often for short medium distance, vehicles can carry less than 15 people but has frequent trips. For a long distance, more passengers can fit into mass vehicles or buses. With limited number of passengers served, the state of public transportation in urban areas has not reached to a level of massive transportation. For land based transportation, Local Transportation Agency (Dinas Perhubungan) is the main government arms at the local level that locally deals with mass transportation including routes, mode of transportation, capacities as well as hour operations. In municipalities of Indonesia, Local Transportation Agency form alliances with land based transportation operator organizations, (Organda), that help define the routes, the operators, hour of services. Organda also communicates with the government regarding tariff charged to the public, as these tariff decision is made by the legislature after the recommendation of the executive governments. Processes toward decision either to increase tariff has been based on political decisions, often at the expense on increased burdens to the operator, or to the subsidy of the governments. With less clear understanding on costs of operating vehicles for mass transportation, including the cost of higher gasoline price, the state of mass transportation vehicles dilapidate, and is often dangerously operated. In the case of DKI Jakarta, since other choices of other types of vehicles have not been made available, such vehicles continue to be utilized.

With such dire situation, public transportation in cities of Indonesia often falls into a perception that such transportation is used only for poor people. Surveys on some large and medium cities, have shown that despite such condition, public transportation serves the need of those who do not own motorized vehicles such as children going to schools, mother going to the markets.

Public transportation that closely resemble mass transportation is introduced through government owned company, known as “Damri”. Its vehicles have the capacity up to 40 passengers, begin to operate in areas whose demand for public transportation emerge but do not yet attract private sectors to participate. Lately, Damri offers mass transportation between cities, or cities and hub of transportation such as ports or airports. Damri also offer long distance within cities services such as one in Bandung.

Water transportation for mass, is also slow to develop. Water based public transportation is purely a type of privately run services. There are less clear regulation on water based mass transportation. Cities that runs rivers around it such as Palembang, Banjarmasin, Palangkaraya, has a poor connection between land and water transportation. Not only that water based public transportation is not integrated into land based public transportation, water-based public transportation is considered more expensive and cannot run more frequently than land based. Water based public transportation, when require higher investment, is operated by government owned company, ASDP. ASDP usually operates in sea areas rather than rivers.

As of today, there is no policies or strategies that dedicate toward mass transportation in urban areas. Experiences on building mass transportation in urban areas have been the case study. DKI Jakarta will be the first experience of which the central government will derive from and develop policies that can help other cities to create their own mass transportation.

As the cities become richer, there more vehicles owned by its residents. At the provincial level, the more urbanized the province, the more people own personal vehicles. The ownership reached about 80%. On the other hand, the least urbanized provinces also mean that personal motorized vehicle ownership is low. It can be as low as 25% of the whole population in the province of Papua.

Recognizing at the provinces which are more archipelagic or own water and not only land mass, the ownership of personal vehicles continue to be low despite the fact that the province becomes more urbanized.

#### **4.4 Reducing Air Pollution**

The more urbanized the area is connected to the higher the level of air pollution. For The last fifteen years, monitoring of air pollution has improved from previously the domain of central government to currently held by municipalities/regencies. Using Standard Pollution Index (SPI)<sup>18</sup>, local residents can monitor their air pollution through the website. These days, only 19 municipalities/regencies that have stations to monitor such pollution. Most of them are located in the west and central part of the country.

Congestion from urban transportation is often blamed as the major sources. The Ministry of Environment identifies that urban transportation contributes to 50 to 70 percent of the total emissions of fine particles and 75 percent of total harmful greenhouse-gas emissions to health(Ekuatorial, 2014). In Semarang during peak hours, the concentration of Pb and CO are significantly higher (Widiani, Purwanto, & Sulisnanto, 2008). It leads to dying plants, soil not capable to hold plants. With the absence of policies directing towards promoting mass transportation in urban areas, congestion or traffic jam becomes the fixture of urban areas of Indonesia regardless of the size of the population.

However air pollution can also increase from urban land cover, such as more paved areas or higher number of building using glass fixtures and less areas dedicated to green urban space. The combination of these and urban land uses that promote densification without much green open spaces infilled, raise the green house effect. Typically, temperature of high density urban areas raise between 1-5°C as a result of green house effects. With the combination of traffic congestion, increased size of built up areas and limited size of green open space, green house effects are seen as having devastating effect for urban public health and towards energy demands.

In the coastal city of Surabaya, the temperature level during the day reaches about 34°C which is hot and trigger higher energy demand, not to mention lower level of urban productivity. Survey did by BPS on the desire of population to turn on the AC at the temperature of 25 °C or higher, shows that provinces that have mining resources have the tendency to turn more often. Even DKI Jakarta is not considered high at the number of population who have such desire. At the municipality level, the higher the income of its population combined with the location of the cities such as in coastal areas, the higher the desire to turn on the air condition.

Taking the clue from the worsening situation of green house effect and level of densification that potentially chock the living of urban residents, from the point of view of land use planning, through the Law Number 26/2007 on Spatial Arrangement, municipalities are required to allocate minimal of 30% land for green open space (RTH). Since then, efforts to increase the land size dedicated to green open spaces (RTH) have been mobilized and promoted. Based on the evaluation by the Ministry of Public Work, the average proportion of green open space to the total land size in cities of Indonesia is only

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<sup>18</sup> SPI collects data from observation of PM2.5 (fine particulate matter), PM10 (respirable particulate matter), NO2 (nitrogen dioxide), SO2 (sulfur dioxide), CO (carbon monoxide), O3 (ozone) in ten cities of Indonesia.



14% (Muliarta, 2012). For some higher density municipalities, this requirement is a challenge. Bandung, Depok, Bogor, Bekasi, Tangerang, Tangerang Selatan, DKI Jakarta can only fulfill its green open space less than ten percent, far cry from 30% that is required. In 2008, DKI Jakarta only acquires 5 hectares of land for RTH. For cities located outside of Java Island or medium and small cities, the proportion of RTH to the city size has been better. However, there is an exception to the cities such as Payakumbuh and Balikpapan which have a proportion of RTH, reaching 50%.

Beyond the proportion of RTH, the functions of RTH have not been discussed much in the RTRWs or city functions. The arrangement of green open space, as well as the function that they are intended to be used or to be conserved for is another step in the right direction for promoting RTH. Green open space is not only that it promotes interaction between residents and nature in urban areas, but nature that can promote the emergence of urban animals, urban forestry and protection of natural resources including water sources. This will help with the negative effect of green house effects.

Car free days promoted in many cities is aimed at reducing air pollution. Promoted by the local Environmental Agency, car free days gain popularities not only in large cities but also in small cities. The area used for car free days is usually main street of the cities which change functions to be open spaces for residents to engage in sport, or entertaining activities, fit into family programs.



**Figure 4. 4 Campaigning for Car Free Day in Bandung**

Source: Photo by Ari Prasetyo & [www.bandungholics.blogspot.com](http://www.bandungholics.blogspot.com), 2014

The ten percent of 30-percent green open space has to be provided for by urban residents including private sectors. Many municipalities have not taken specific policies or strategies to promote private initiatives for green open spaces. Strategies for example, to promote the unpaved backyard or frontyard. But they promote the use of biopori or small scale retention ponds, which is not aimed at promoting green open space.

Increasing air pollution in urban areas has an effect on public health. The major sources of air pollution in urban areas comes from motorvehicles, which allow for fine particle pollution ( $\leq 2,5$  micrometter in diameter) smaller than mold spores, pollens or typical atmospheric dust to enter the lungs. Incident of respiratory illness increases annually in the urban areas. There are more people walking in open air opt for using face masks, despite the fact that they do not have respiratory symptoms (Cochrane, 2015). Indoor air pollution is also reported as a part of respiratory ailments in urban areas (Ministry of Health - Government of Indonesia , 2013). It especially comes from indoor smoking, cooking and the constant uses of air conditions. The percentage in urban areas are higher than that in rural areas.

Reducing the use of motorized vehicles can be a solution that are still in infancy in urban policies towards reducing air pollution. The use of bicycles as mode of transportation in urban areas is initiated by the urban communities. Organization such as Bike to Work promote the use of bikes for daily usage, not only for recreation purposes. Municipalities itself Some cities such as Surabaya, Yogyakarta allocate their streets for bike lanes. Other cities such as Bandung, allocate bikelanes together with pedestrian lanes. Furthermore, government initiatives for promoting the use of non motorized vehicles has many approaches. The Mayor of Bandung, every Friday, bikes to the office. The government officials of DKI Jakarta and of the Depok municipality have to leave behind their motorized vehicles once a week.

Initiated by urban communities, is the sharing economy in public transportation. Using the apps specifically for getting a ride with friends or colleagues, or even strangers is one way to overcome the stress from traffic congestion and to reduce the effect of pollution.

Another national program intended to reduce the dependence on the fossil fuel, is to convert to gas fuel (Bahan Bakar Gas (BBG)). While the program is not intended to reduce air pollution, more than to reduce energy subsidy, it is one of the programs that help with reducing air pollution. This program is not cheap, as the conversion requires adjustment in gas station, engines, converter kit, as well as the quality of services in distribution. This program is initiated in cities such as Jakarta, Bandung, Surabaya, Cirebon, Bogor, and Palembang, participated by private or government owned vehicles. In Jakarta, some BRT uses gas fuel as their main vehicles.

Initiation in green buildings and green infrastructure begin to take shapes. It is however slow to be adopted at the local level. As it requires more than policies related but also the supply of materials and knowledge promoted. Another important effort to reduce air pollution is solid waste management. Landfill of solid waste is another source of air pollution ( $\text{CH}_4$  or  $\text{CO}_2$ ). Reducing the volume of solid waste transported to the final disposal is not only prolong the lifetime of the landfill location, but also reduce the possibility of air pollution. Law 18/2009 on waste management especially promotes the solid waste reduction at the household as well as temporary locations. Survey done by BPS on the willingness of households to separate their solid waste at the provincial levels, it shows that the highest percentage of household to engage in separation is 30%. The lowest region(15%) are located in DKI Jakarta, Maluku dan Sulawesi Tengah. Thus the willingness to separate solid waste do not have correlation with the more urbanized the provinces.

Many of these programs such as car free days, conversion to gas fuel are considered symbolic. They do not directly represent the need to expand such services or permanently transform urban lifestyle that improves air pollution in urban areas. The use of solar panel based for urban lightings are another symbolic efforts to show off what have been done to be energy efficient and environmentally friendly, but not yet to extend such good deeds to the massive transformation.

## CHAPTER 5 URBAN GOVERNANCE AND LEGISLATION

Most people, including most policy-makers in Indonesia, tend to not notice that this country now has more people living in urban areas compared to those living in rural. This change in demographic characteristic consequently generates various implications, particularly in the policy sphere and good governance. Managing an area with population density and fast-paced activities within a limited spatial concentration surely require a different approach with how rural areas is managed. Not to mention the increasing expectation for Indonesian cities to be livable, affordable, green, sustainable, competitive and even smart. Therefore, sufficient urban governance – including a specific set of law and regulations– is required.

This chapter provides a brief overview of law and regulation related to urban governance, namely decentralization, local government capacity strengthening, increasing people participation, protection over human rights, improving urban security and people safety, improving social inclusion and equity in the context of development and urban management. Eventhough many still think that urbanization should and can be prevented, thereis already a growing belief that if managed well, urbanization can contribute significantly to not only economic growth, but also people welfare and poverty alleviation. One of the keys to do the above is to have good urban governance.

### 5.1 Improving Urban Legislations

Indonesia's Reformation Era that began in 1998 can be seen as an embodiment of people's aspiration for a more democratic and people-oriented good governance. This desire is marked, amongst others, with the immediate amendment and modifications on existing legal products, including those that are related with urban. The most fundamental amendment was on the 1945 Constitution and its more practical regulation derivatives. Hierarchy of the law and regulation was also reviewed to ensure correct legal order.

In the period of 1999 – 2002, the Indonesia's People Consultative Assembly (*Majelis Permusawaratan Rakyat – MPR*) had amended the 1945 Constitution four times. These amendments assert that the Republic of Indonesia is a state of law and that the law, and its regulations, serves as the pillars in executing good governance. This may seem like an obvious notion, however historically, politic was the guiding factor during the Old Era, and then economic growth was the main determinant during the New Era. Therefore, during the Reformation Era, there was a strong hope that the law finally becomes the fundamental pillar for citizens in implementing their civic duties.

Henceforth, there were initiatives, be it from the government (executive) and People's Representative Council (legislative) and even from the people, to collaboratively develop new law and regulations or renew the existing to make it align with value and norm that is inherent with the recently amended constitution, which is to have a democratic state governance. The reformation also improve the law and regulation hierarchy in Indonesia whereas based on Law No.12 Year 2011 on Establishment of Law and Regulations, the hierarchy is as follows: the 1945 Constitution, MPR Decree, Law and Government Regulation *in lieu* of Law (PERPPU), Government Regulation (PP), Presidential Regulation (Perpres), Provincial Regulation and Regency/Municipal Regulation. Indonesia also submits to the opinion that any law and regulations must refer, or cannot be in contest with law and regulation that is higher in the legal order. Such condition can lead to a regulation annulment. At the highest level, the Constitution Court can annul any law or clauses if it is considered in contest with the Constitution.

In relation to urban governance, the existing law and regulation affect, either directly or indirectly, urban governance in Indonesia, in these four ways: 1) law and regulation on local implementing institution, including municipal government; 2) law and regulation related to local fiscal (including fiscal capacity strengthening); 3) law and regulation related to management of physical resource, natural or manmade; and 4) law and regulation related to people and community. Other than the above, there is also a development planning system that has legal standing to serve as main reference in the execution of urban governance.

Law and regulation that are related to local implementing institution is Law No.23 Year 2014 on Regional Governance, which was a revision from the previously enacted law on the same issue, which is the Law No.32 Year 2004 that was also a revision from Law No.22 Year 1999 on Decentralization. Unlike its two predecessor, the Law No.23 has a specific chapter on urban management. The government has been planning to develop a series of PP on urban management and governance to elaborate and detail implementation of the aforementioned chapter. The series of revisions over the same topic in the past 15 years indicated Indonesia's strong commitment to improve governance management at the local level, yet it also reflects the central-local political dynamic, in which Indonesia recognizes three-tier governmental level: central or national, province, regency/municipal. Recently, through Law No.6 Year 2014, there has also been increasing recognition towards rural governance.

Regional governance in Indonesia is complex, namely due to its diverse geographical, demographic, socio-economic, cultural and historical conditions. Indonesia is an archipelagic country with over 17000 islands, massive population – around 250 million in 2014 – yet densely concentrated on Jawa island that only constitutes 5% of the entire country's area and is inhabited by 55% of its people (approximately 140 million people). There are areas where density is high, very urbanized and equipped with modern facilities and infrastructure, whilst there are other areas where the population is thinly scattered with limited facilities and infrastructure. In the midst of this diversity, there is a continuous effort to make Indonesia as a one political and legal entity where each of its people can have an equal minimum service standard. The numerous legal products on decentralization and regional autonomy are part of this effort.

Before the 1998 reformation, the law on regional governance, which was first enacted in 1974, put more emphasis on the role of local governments as the loyal implementing arms for development plan prepared by the national government. The heads of local governments are appointed by the upper-level government based on the recommendations of relevant local councils, whose members were elected by the people. However, after the Reformation, the amended constitution emphasizes that Indonesia comprises of autonomus provinces, and the provinces comprise of autonomous regency and cities. The province, regency and municipal governments manage their own governance in accordance to the regional autonomy principles and the assigned duty of assistance. The local government execute their autonomous mandate in all aspects, except for matters that are stipulated as the mandate and responsibility of the central government, namely foreign politics, defense, security, judicial, monetary, fiscal, national and religion.

After Reformation Era, the head of region and the member of the regional representative council is democratically elected. This indicates how the constitution amendment, which was followed by revision of law and regulation on regional governance, had generated fundamental change in urban governance in Indonesia. It is noted that during this time of transition (from centralistic to decentralized government), urban governance faces numerous issues to be resolved. Nevertheless, the decentralized climate and democratic atmosphere has nurtured many creativity and innovation in regional governance and service delivery.

The law and regulation related to local fiscal capacity which mainly was Law No.33 Year 2004 on Central and Local Fiscal Balance, which was a revision from Law No.25 Year 1999 on similar topic, is currently under revision to further adjust to the dynamic of regional autonomy. This law also governs local fiscal balance that defines local revenue and transfer fund from national government to regional government, which are the general allocation fund (dana alokasi umum – DAU), special allocation fund (dana alokasi khusus – DAK) and revenue sharing fund (dana bagi hasil). Another important law in this group is the Law No. 28 Year 2009 on Regional Tax and Retribution that was intended to clarify the “rooms” for local governments to tax people and activities in order to build adequate local fiscal capacities, perform their duties and serve their respective people. This law is particularly formulated to respond to the need to restrain local governments’ earlier tendencies to increase local taxes—that could potentially discourage businesses—while at the same time also allow local governments to meet their needs through local taxation.

Meanwhile, law and regulation that comprehensively shape the physical environment of the city and urban areas is the law on spatial planning. Law No. 27 Year 2006 on Spatial Planning was formulated in reference to the constitution mandate which state the the land and and water and natural resource are under the possession of the state and should be used for people’s welfare. Therefore, although the Spatial Planning Law served as the revision of Law No.24 Year 1992, yet its origin as a national-scale planning area to provincial-level, to then regency and city was maintained. Therefore the country’s spatial planning is actually still based on the principle of decentralized territory.

There are also other laws that serve as reinforcement on the authority and responsibility in how to exercise its mandate to manage physical resources, namely Law No. 7 Year 2004 on Water Resource (which was later on annulled by the Constitutional Court, due to, amongst others, consideration that private sector management is considered to be against the constitutional mandate. Thus returning to the preceeding law, Law No.11 Year 1974). There is also Law No. 28 Year 2002 on Buildings, Law No. 38 Year 2004 on Roads, Law No.18 Year 2008 on Solid Waste Management, Law No. 1 Year 2011 on Housing and Settlements, as well as other law and regulation that are generally intended for good governance over physical environment.

Meanwhile, law and regulation on people and community is generally the national government’s instrument to instruct local governments to protect and provide service at its best. Included in that group of legal products, amongst others are Law No.24 Year 2007 on Disaster management, Law No.25 Year 2009 on Public Service, Law No.52 Year 2009 on Demographic Development and Family Planning, and others law and regulation that are direct or indirectly affect urban governance in Indonesia.

It should be noted that there was already an effort to develop specific law on urban management. However, the latest development is that the government regulation (PP) on urban management will adhere to the Law No. 23 Year 2014 on Regional Governance. The Government Regulation will be a revision on the existing regulation, which is Government Regulation No.34 Year 2009 on Guidelines in Urban Management Areas. This regulation, amongst others, adopt the definition of urban areas as stipulated in the Spatial Planning Law that determines urban areas are areas that have non-agriculture main activities, with function as urban residential, center and distribution of service delivery, social service and economic activity. The Government Regulation will also need to adjust to the new Law on Regional Governance (No. 23 Year 2014, no longer No. 32 Year 2004). However the current governing regulation stipulates that urban areas can be classified as: a) autonomous entity; b) urban areas that consist of a regency or part of two regencies or more; and c) part of two or more areas that directly borders with and have urban features. A Government Regulation then guarantees that a city that is formed as stipulated in point a) will then be formalized by the law. The formation of urban areas as

stipulated in point b) is regulated by the related regency regulation. Formation of urban areas as stipulated in point c) is regulated by each of the regencies' regulation.

Other than the currently revised government regulation, there is also an effort to formulate a National Policy and Strategy for Urban Development (*Kebijakan dan Strategi Pembangunan Perkotaan Nasional - KSPPN*) 2015-2045, that presents a vision of how urban areas in Indonesia should be oriented to in the future. However this status of the document is still as an academic review and does not have a clear legal standing to be enforced. Nevertheless, the content of KSPPN had widely been adopted into the National Mid Term Development Plan (RPJMN) 2015 -2019 that is legally supported through Government Regulation No.2 Year 2015.

It is also important to inform that Indonesia has a national development planning system, from the national to subnational level that is governed under Law No.25 Year 2004 on National Development Planning System. In this legal product, government is mandated to prepare long term development plan (20 years of lifetime), which will then detailed into a five year development plan (RPJM) and adjusted to the president's term of office at the national level, governor at the provincial level, and Regent or Mayor at the regency/municipal level (as well as adjustment with the content of political campaigns). RPJM is then break down into annual work plan, at the national and sub national level. Each ministry or agency at the subnational level also is required to have a mid-term strategic plan and annual work plan.

To improve the quality of local planning and budget, many local governments employ a planning and budgeting information system by the use of e-government application in every development stages. Surabaya municipal government is one of the pioneer that implement the Government Resources Management System (*Sistem Informasi Manajemen Sumber Daya Pemerintahan – GRMS*) for financial management that is integrated with bueracratric activities (in regard to expenditure). GRMS encompass e-Budgeting, e-Project Planning, e-Procurement, contract administration and e-Delivery, e-Controlling and e-Performance for civil servants.

## **5.2 Decentralization and The Strengthening of Local Authorities**

With the birth of Reformation Era, decentralization and democracy practice at the local level thrives through challenging social dynamics and political processes. For the past 15 years, Indonesia has carried out four elections and terms of office orderly and peacefully, in which, since 2005, local leaders like governor, regent, mayor and parliament members are directly elected by the people. These experiences have transformed the political culture and good governance nature in Indoensia. Transformation to decentralization system was executed peacefully without political turmoil that endangers the nation's stability. This itself is an achievement by all Indonesian people, especially if compared to other country's transition that often create conflicts and violence.

In tune with these changes, people are also increasingly aware on the benefits of democracy and decentralization. This mindset is reflected in people's rejection toward the DPR decree on indirect election for local leaders as stipulated in Law No.22 Year 2014 on Electing Governor, Regent and Mayor, which overrule the content of Law No.32 Year 2004, that local leader will return to be elected by the local assembly (DPRD). As a reaction to this rejection, the President had to enact Government Regulation en lieu of Law (PERPPU) No.1 Year 2014 that restored direct election for local leader (which was then decreed by the DPR into Law No. 2 Year 2015 under the same matter). To provide further legal certainty, consequently President should also enact Government Regulation en lieu of Law No. 2 Year 2014 on Amendment on Law No.23 Year 2014 on Regional Governance, which mainly eliminates the mandate and authority of DPRD to elect local leaders.

The Law on Regional Governance set forth task sharing between central, provincial and regency/municipal, which affirms the main essence of decentralization to separate mandate and responsibility of public services based on three criteria: externality, efficiency and accountability. For provincial and regency, there are two assigned functions, namely mandatory function and discretionary function. Mandatory function encompass all kinds of basic public services (education, health, housing, etc) and non-basic service (connectivity, trade, etc), whilst discretionary function is determined based on each region's comparative advantage for natural resource.

There are two government regulations serving as framework to make clear what has to be performed by the local government; what matters are categorized as mandatory and discretionary function for province and regency/municipal (PP No.38 Year 2007), and what are the process in establishing the required local governing bodies (PP 41/2007) that has to be align with the local capacity (population size, area size, and fiscal capacity). This framework allows such flexibility that up to now there is no subnational governance structure that are identical between one another.

The Regional Governance Law also stipulates that every region will have differing priority in its efforts of securing welfare for in accordance to its own local characteristic. This is an asymmetric approach, which means although every region is given a large extent of autonomy, however the setting of government priority will be different from one another. The logical consequence of this approach is that every region might have differing governmental and institutional priority. Since the implementing organizational unit will need to accommodate these priorities as well as population size, area spread, work load and fiscal capacity, then size and structure of these units will also differ from one region to the other.

The process of improving urban governance is still ongoing and require continuous effort. Exercising the mandate from the Regional Governance Law, the regulatory detail on urban management will be arranged by a specific Draft of Government Regulation (RPP), which will emphasize on urban governance outside the administrative boundaries that fall into the responsibility of the regency, or collaboration between regencies with support from the umbrella province, as well as the challenge to collaborate between provinces in metropolitan area, such as in the case of Jabodetabek (Jakarta-Bogor-Depok-Tangerang-Bekasi) that comprise of three provinces. This draft will continue to be perfected to attain more effective good governance. This draft will replace the existing PP No. 34 Year 2009 on Guidelines for Urban Management.

Democratization and desentralization also has increased public awareness on its rights, and encourage people's demand for a better urban service delivery. This then has underlying the enactment of law and regulation on minimum service standards (MSS) for every basic public service that is mandatory to be provided, access to public information and the formation of Ombudsman commission to address complains on public service delivery, and so forth. It is clear that local authority is continuously exercised as a mean to strengthen, improve and refining their capacity as public servants. Especially for urban management, the Law No.23 Year 2014 also employed another set of service delivery standard for urban areas (*Standar Pelayanan Perkotaan – SPP*), which takes form as a government regulation. This government regulation will regulates urban service and facility provision in accordance to the mentioned standard. Unfortunately, this SPP is only governed under a Ministerial (of Home Affairs) Decree – *Peraturan Menteri Dalam Negeri – Permendagri*) No. 57 Year 2010 on Guideline for Urban Service Delivery Standard, which only encompass autonomous city, provincial capital cities and regency capital cities.



**Table 5. 1 Fulfillment of Urban Service Delivery Standards (SPP) in Selected Cities**

NO	CITY	Percentage of Fulfillment of the Urban Service Standards (SPP) in 2011	Percentage of Fulfillment of the Urban Service Standards (SPP) in 2014
1	Surabaya	21.84%	92.77%
2	Kendari	19.54%	92.77%
3	Bandung	14.94%	90.80%
4	Bogor	22.99%	85.54%
5	Pekalongan	16.09%	85.54%
6	Bandar Lampung	26.44%	85.06%
7	Padang	19.54%	84.34%
8	Tanjungpinang	13.79%	84.34%
9	Singkawang	18.39%	78.31%
10	Padang Panjang	55.17%	66.67%

Source: Data collected from Directorate General of Local Development, Ministry of Home Affairs; 2015

Other achievement that is worth noting in public sector good governance is the involvement of non-governmental parties (private sector and civil society). Although their nature of involvement is still voluntary/participatory, however there are situations where their role is significant (for instance, self help housing). However, this creates new issues in relation to urban governance. Consequently, there are new cities that have their own management rules on function and public facilities that are in accordance with the operating regulation in their administrative territory. Cases of satellite city management in Jabodetabek, such as Cikarang, Bumi Serpong Damai, Alam Sutera, Sentul and others, generates issues such as “private-sector mayor” with all its related policy and public regulations that governs the residents, which in factuality, are the residents of a particular regency. The new PP on urban management aimed to have a good governance on collaboration and partnership amongst stakeholders that is just, so that urban areas are formed naturally (urbanization as results from reclassification), as well as those that are planned (new city), have a sustainable good governance and can improve its effectivity and efficiency in service delivery

In the light of the incessant effort to encourage bureaucratic reform or administrative reform, systematically and holistically, fit and proper test or open public test is undertaken to ensure that only adequate human resource that are sitting on key positions; in fact, there are several local government that exercise its authority to implement job tender (like in Jakarta, Bandung and several ministries and government institutions). This mechanism aimed to filter capable people to be public servant who strives for excellence in public service delivery and in accordance with mandate set in Law No. 25 Year 2009 on Public Service. This law set forth service standards that serve as the working indicator and guideline in service delivery, as well as reference in evaluating the quality of service given against the promises and obligation of the public servants to provide quality, fast, accessible and measurable services. This demand is further supported with Law No. 14 Year 2008 on Open Public Information, which states that public information should be open and accessible to all public information users. This law aimed to secure citizens right to be informed in every public decision, policy program and rationale

behind every public decision. It also aimed to improve management and information service in public sphere to generate quality information service, which is paramount to be obtained when living in urban.

Learning events and trainings to increase human capacity, not only for the technical staff but also for the local leader (mayor) by submitting them to local or international training. At the national level, efforts to strengthen local authority in undertaken by the Center for Training and Planning (*Pusat Pembinaan Pendidikan Pelatihan Perencanaan - Pusbindiklatren*) Bappenas by promoting education opportunities and financing for academic or non academic learning to local apparatus. In addition, scholarship for local apparatus also has been made available through local budget, particularly in financing their enrollement to reputable universities in Indonesia or abroad, hence the quality of urban people and its surrounding areas has increased significantly.

Meanwhile, recruitment for candidate of civil servants (*Calon Pegawai Negeri Sipil -CPNS*) is also improved, although the process becomes more centralistic with its newly introduced online registration. One might argue that this seemingly centralistic system will reduce a certain degree of autonomosity of a region in recruiting their own civil servants, however in the spirit of bureaucratic reform, this mechanism minimize potentiality of corruption, collusion, nepotism and others as stipulated in Law No. 28 Year 1999 on Implementation of Clean Government and Free from Corruption, Collusion and Nepotism.

Institutional fine-tuning is done continuously through adjustment and refining task and function of each existing service unit as well as employing working standard and stricter monitoring and control standard. This is also done for guidelines and ‘norms, standard guideline and criteria (*“norma, standar, pedoman dan kriteria (NSPK)”*)’ that is related to strengthening the capacity in implementing program and activities at the local level.

Other important achievement is fiscal decentralization that devolves central tax sources to regency/municipal, which is regulated under the Law No. 33 Year 2004 On Fiscal Balance between Central to Local Government. Employing the “*money follows function*” princip, central government allocate transfer fund to local government annually. This transfer fund is designated to improve local government’s performance in executing its obligatory function within an amount of 87% of the regency/municipal’s revenue and 55% of the provincial reveue from the period of 2008 – 2010<sup>19</sup>. As economy and state budget grows, transfer fund consequently increase in size by every year. Recently in 2014, the Central Government allocate IDR592,5 trillion to be transffered to region, much higher compared to the amount transferred at the beginning of decentralization era, which was IDR82,4 trillion 2001. Overall, transfer fund for local goverments reach up to 35% of the state’s revenue within the period of 2001-2014.

This fiscal arrangement is actually very potential to be the main instrument for national policy in managing cities. However this opportunity is yet to be utilized maximally even if national government contnue to develop criteria and guideline on general allocation transfer or speciall allocation funds. Revenue sharing fund is also improved to increase local fiscal capacity. In addition, through Law No.28 Year 2009 on Local Tax and Retribution, local government also has opportunities to increase its fiscal capacity to fulfil its function and responsibilities. As additional funds, limited earmarking scheme (10%) on revenue from transportation sector (motor vehicle tax, Transfer of motor vehicle title fee, vehicle safety inspection, etc) can immediately allocated to improve transportation sector. Whilst non-conventional revenue source such as development impact fee, land value capture, municipal bond, has

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<sup>19</sup> Training materials on Local Revenue, Ministry of Finance, DitGen PKPD 2015

not yet explored by local government, although had been made possible, therefore in general there are still ways to improve fiscal capacity.

### 5.3 Improving Participation and Human Rights in Urban Development

Reformation era had welcomed increased people participation in planning, budgeting and implementing urban development, as well as in monitoring. The regional autonomy and democratization paradigm in multi aspects of development had encouraged better participation. Law No. 12 Year 2011 on Establishment of Law and regulation, stated that people have the rights to provide input, verbally or written, in the process of formulating law and regulation. This provides strong normative platform for people participation in policy making in urban development. In practice, participation takes form as offering input and critics in policy making, and monitoring toward service and its implementation, and natural resource contribution in all stages of urban development. Several normative guidance has promoted and cater people participation in development activities.

The presence of people participation in development, in addition to encourage synergy amongst resource from government-private-community to be more effective in implementing development activities, it has also leveraged the efforts in achieving results as well as in attaining sustainability since it warrants attention from stakeholders. Local community participation also has decorated many development activities with its unique culture-based and local wisdom-based inputs.

Several development activities that has participatory element has boosted community participation for sustainable development, such as during the process of development planning (Musrenbang) or the National Program for Community Empowerment (*Program Nasional Pemberdayaan Masyarakat* (PNPM) and others. PNPM Mandiri for urban, in particular, had benefited 33 provinces, 268 municipal/regency and 11.066 *kelurahan*. This program accommodates the Urban Poverty Program (*program Penanggulangan Kemiskinan di Perkotaan* (P2KP) that was launched since 1999.

The Constitution had explicitly stated about human rights in regard to freedom to associate, rights for religion, rights for defending nation and rights for education. After the reformation era, Indonesia amended the Constitution to further elevate these rights. There are ten additional clauses in relation to protection and fulfillment of human rights. In the context of urban development, these clauses amongst others indicate that the state must guarantee the rights of its citizen to develop themselves by fulfilling all their basic needs, including living a good quality of life, right to inhabitate with access to a healthy environment, health and education services, and to information.

In the reformation era, legal and justice principles that are reflected in the 1945 Constitution also had been formulated into a more specific law on human rights, which is the Law No.39 Year 1999 on Human Rights, Law No.40 Year 2008 on Eliminating Race and Ethnic Discrimination, and Law No. 26 Year 2000 on Human Rights Court, including Law No.16 Year 2011 that aimed to provide legal aid for poor people that cannot afford to hire lawyer in court.

To support implementation and monitoring of human rights cases, Indonesia has established several national committees, which are the Human Right National Commission (*KomnasHAM*), Women National Commission, and Children Protection National Commission as independent bodies that able to undertake assessment, research, counseling, monitoring and mediating human right cases occurring in society. Several attempts to uncover human right violation cases has also been undertaken by the *KomnasHAM*. Recovery attempt for victims has also been carried out through Witness and Victim Protection Agency (*Lembaga Perlindungan Saksi dan Korban* - LPSK). One of the government

programs that relates with fulfillment of rights is Child Friendly city that encourages cities to be more accessible and safe, as well as providing space for children.

A more democratic governance, accessibility to public information<sup>20</sup>, and larger participation of press<sup>21</sup> and active community have opened door for a control canal that is more effective in implementing urban development, including in fulfilling its citizens' rights. People participation in public policy and in monitoring the urban development evaluation, is generally done by non-governmental organization as well as social activist. This also widened opportunity for community's resource participation, through self-help scheme or through private sector, especially in housing and settlement development.

Self-help housing and settlement development is slowly enhanced by the government through several programs, namely what used to be known as *kampung* improvement program (now is included as part of PNPM Mandiri in Urban). Meanwhile, development by private sector varies, from merely constructing houses, public facilities to the entire urban areas with all its amenities. Through several subsidy-scheme, this approach can eventually impacting the lowe-middle income people.

#### 5.4 Improving Urban Security and Community Safety

This section highlights main risks and threats in regard to urban security and people's safety, amongst others: violence and urban crime and social conflict; lack of secure tenure; and natural disaster risk and climate change-hydrometerologic risk. It will start with explanation on condition and tendency related to urban safety and security, the determinant factors and its impact, as well as policy and good practices that has been carried out by the central, provincial and regency/municipal government. It will also give extra attention in defining community's perspective of security and safety and further elaborate related government efforts within the regulatory, policy, planning and urban governance framework.

Rapid urbanization growth combined with the current poverty, social inequality, unemployment and other social issues, is one of the most influencing factor in exacerbating violence and crime in cities. Criminal incidence in Indonesia within the period 2010-2012 tends to fluctuate. Data from the Indonesian National Police registered the following number of criminal cases: 332.000 cases (2010), 347.000 cases (2011) and 341.000 cases (2012). Number of people in risk of crime rate in every 100.000 citizens relatively decrease from 142 in 2010 to 134 in 2013.

The increased crime rate is often worsened with homogenous land use in an area which makes the area as a dead city during night time. This usually can be found in old city zone where most of the buildings are used for commercial purposes at night time, or in newly established office and trade location. Other than relying upon the police force, community has its own way of participating through a night shift (*ronda malam*) and establishing neighborhood security posts (*pos keamanan lingkungan* (*poskamling*)). Many new housing clusters even have its own security officer that specifically paid to guard the neighborhood. To mitigate the city's safety risk at night time, some municipal government install CCTV in high-risk for crime areas to monitor security, old city revitalization, *kampung* revitalization and developing street vendor area at night time, and revive the city and community's small business (based on Solo and Surabaya's cases).

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<sup>20</sup>Law No. 14 Year 2008 on Access to Public Information

<sup>21</sup>Law No. 40 Year 1999 on Press

Several violence and criminal cases also happen to the minority groups, such as: women, children, teenager and also minorities. During 2010-2013, it was identified that violence against women cases has increased, which includes cases that is handled by the Religion Court as well public service provider. Women National Commission revealed the number of violence against women are: 105.103 case (2010), 119.107 case (2011), 216.156 case (2012) and 279.760 cases (2013). Domestic violence still serve as the most popular cases that occurs in the domestic sphere. Whilst sexual, physical, psychological and economical violence mostly found in public sphere. Legal breakthrough continues to be pursued to strengthen the country's commitment to protect women and children's rights through: establishment of the National Human Rights Court; socialization on marriage law, particularly on women's rights and child protection; formulation of gender parameter in legal products and to encourage local government to restore its citizens' violated rights.

Entering reformation era, several social conflicts arose due to increased opportunity and freedom to express opinion and need. However with society's increasing awareness, clearer policy, higher access to information due to social media and better police ability in securing safety, risk and conflicts that are induced by ethnicity, religious and race in several spots (Poso, Ambon, Aceh and Papua) for the last ten years can be resolve peacefully through mediation and negotiation. Nevertheless, security threats and terrorism and international crime network still needs to be alerted.

Secure tenure and acknowledgement on land occupation is one of the citizens' rights as well as to be free from eviction and other forms of forced relocation. In line with law enforcement and the aforementioned law and regulation on human rights, eviction cases in Indonesia had declined. Land and spatial dispute can be resolved through legal means. However, several cases in relation to groups of community that are squatting on public land ( on green spaces, riverbanks, railway sides and others) or unoccupied but privately-owned land, are yet to be resolved and the solutions provided must be integrated with city-scale urban development program. Indonesian cities' squatters are not only legal issue, but also attributive to the social and cultural context, particularly in cases where the land has been occupied for more than 20 years without any notice from the government and land owner, and even managed to secure basic services from government and also pay property tax.

Municipal government and Mayor usually employs a case-by-case approach in resolving these cases, which are also taking into account the social condition which had resorted to the use of the land illegally, and also promote dialogues and agreed consent amongst all relevant parties. Regulation in regard to local financial management does not allow grant or aid to be given to squatters on state-owned land, however municipal government can perform a breakthrough like in Solo in 2007 in relocating flooded squatters in Bengawan solo through disaster aid, or slum upgrading along the riverbank in Palembang and relocation of squatters surrounding a dam to low-cost flats in Jakarta. The way that these cases have been resolved is seen as good practices in urban governance that have been replicated in other cities in Indonesia.

Indonesia suffered from perilous natural disasters over the past decade and caused many casualties, building and infrastructure damages in the disaster-hit areas. The large scale disaster that happened within the past ten years in Indonesia based on the National Action Plan for Disaster Risk Management 2010-2012 amongst others: i) earthquake and tsunami in Nanggroe Aceh Darussalam and North Sumatera in December 2004 with over 165.708 civilian deaths and material loss with estimated value of IDR4,45 triliun; ii) earthquake in Yogyakarta and Central Java in May 2006 with 5.667 civilian deaths, 156.662 damaged houses and material loss with estimated value of IDR3,134 triliun.

Hydrometeorology disaster risk like flood, landslide, typhoon, drought and tsunami tends to increase particularly in coastal cities and settlements on critical lands. Around 79 of total disaster in Indonesia is hydrometeorology disaster that caused around 4.936 deaths and 17.7 million suffered and homeless. (2000-2010). Climate change impact has contributed to the increased rate of hydrometeorology disaster in Indonesia. However, anthropogenic factor also contribute to increased rate of flooding and drought compared to climate change itself. Geographically, as Indonesia is located on the ring of fires in the Asia Pacific, government and society must be ready to prevent and manage disaster.

Learning from the experience and success of reconstruction and rehabilitation post Tsunami in Aceh and Nias, the government has promoted mainstreaming disaster risk reduction and management through enactment of Law No. 24 Year 2007 that is also followed with establishment of a national and subnational disaster management bodies, development of an early warning system, building control and institutionalizing planning and good governance for disaster management, and enhancing city and community's resilience. The National Disaster Management Board (*Badan Nasional Penanggulangan Bencana (BNPB)*) had specifically prepared guideline in disaster management plan, including in there is effort to support subnational government measures to enhance their urban and rural resilience. The Yogyakarta experience post-vulcanic eruption has been a good example how a multi stakeholder partnership can produce a good solution (known as Rekompak program), which is then replicated by other cities.

In the effort to provide protection to tenants and building user and reduce disaster risk, the government of Indonesia has ensure fulfillment of security and health standard by enacting the Law No. 28 Year 2002 on Buildings. Law enforcement at the regency/municipal level continues to be pushed and to be adjusted with the diverse local condition. Up to mid 2014, almost half of the regency/municipal in Indonesia (228 regency/municipal) has already develop local regulation on buildings, and 15 of them had issued Certificate for Building Proper Function (*Sertifikat Laik Fungsi - SLF*) on newly built buildings and complied with the required standards based on assessment. This local regulation is hoped to halt slum growth and reduce disaster risk.

It is widely aware of and become government's special focus that urban poor is the most vulnerable group to disaster impacts as they often resides in disaster-risk areas like riverbank and lower coastal. Several of Indonesia's coastal cities (like Semarang and Jakarta) has risk of tidal flood risk and land subsidence that continues to increase every year. The study undertaken in Semarang<sup>22</sup> in 2013 indicated that more of its area is on low elevation coastal zone (LECZ) or area with height below 10 metres under the sea surface with vulnerability to tidal flood risk and extreme climate due to climate change. Approximately 840.000 people live in LECZ area with an average density of 10.201 people per km<sup>2</sup>, which is even higher compared to Semarang city that has 3.973 people per km<sup>2</sup>.

Moreover, urban poor usually have limited access to resource that can empower them to respond and manage the disaster risk impact. To address this, there are efforts, policy and action plan to reduce their vulnerability level and to increases their safety and security towards natural disaster and manmade disaster risks. In addition, a National Action Plan for Climate Change Adaptation (*Rencana Aksi Nasional Adaptasi Perubahan Iklim (RAN API)*) at the national level, several provincial government and regency/municipal government has developed strategy and action plan to increase their resilience and

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<sup>22</sup> Mulyana, et al. 2013. Urbanisation, Demographic and Adaptation to Climate Change in Semarang, Indonesia. London and New York: IIED and UNFPA.

climate change adaptation, namely Bandar Lampung, Semarang, Blitar, Malang, Pekalongan, etc. The city's resilience strategy become the reference for every stakeholders in implementing program and mainstreams into the mid-term development plan.

## **5.5 Improving Social Inclusion and Equity**

As a state of law, Indonesia vows that none of its citizens is above the law. This also means there can be no group in society that can coerce their opinion to others. However, state and local government must also be open to people's aspiration and ensuring their involvement in development process. Society is an element of social dynamic that must always be prioritized. Transparency and society's involvement is the core of inclusion in urban life. To ensure that this happens, government is required to give information on policy and services that are provided for the society.

Implementation of PNPM MANDiri, for instance, progress rapidly and now, at least around 60 million people – in rural and urban – have benefited from this program and also living a better and more independent economy. In thousands of PNPM MANDiri location, community can determine types of economy activity that suits their condition, identify required budget from PNPM and able to use it accountably.

Other program to improve community empowerment and open opportunity for community participation is Family of Hope Program (*Program Keluarga Harapan*). This program intent to alleviate poverty by increasing human resource quality, mainly through education and health for very poor community. Over 3 million very poor households in 318 regency and municipal had been benefited by this program. It also have good practices in governance where partnership between government and community is tangible and able to transform the life of the marginal communities. Most parties, including international institution, have conveyed their support to have similar program like this to be replicated.

Another measure to support the poor is through the enactment of Law No.6 Year 2014 on Rural. This law, and its implementing regulations, state that every rural will receive approximately IDR1billion per year (around USD\$100.000). If the implementation is well-thought and accountable, this is an opportunity for rural areas (all 72.944 villages in Indonesia) to push its productivity and be economically at par with urban centers. If this is attained, it will positively reduce rural-urban migration.

In regard to ensuring inclusive health service, Indonesia currently establish the largest healthy security system in the world, under the Social Security Organizing Body (*Badan Penyelenggara Jaminan Sosial – BPJS*). With this body, health services will no longer be geographically oriented in big cities. Up to August 2014, BPJS has provided health security to over 126 million people. The target is by 2019, the coverage will be expanded to the entire Indonesian population.

Theoretically, Indonesian cities are open and do not have administrative filter to allow citizen to come and go (although citizens should still register, when leaving or coming to a new place, but often this administrative requirement is ignored in practice). Therefore, there is no formal policy that limits citizens' mobility. Nevertheless, there are several large cities that employ demographic policy, which is to limit number of unemployed migrants that have no specific purpose of coming to their city. These migrants are required to have jobs after a few months, and if fail, must return to their hometown. With the newly enacted law on rural that is hoped to bring positive impact for rural areas and reducing the city's pull factor, this restrictive policy should become obsolete.



To balance the impact of development approach that is highly market oriented and prone to economic-based social segregation, the government has long required the housing provider to have balanced housing supply of 1:3:6 (later on changed to 1:2:3) for the high-income, middle-income, and low-income households. This policy is intended to ensure inclusiveness and social interaction amongst citizens in despite their difference in economic income. This intention is also mainstreamed into planning and urban development governance.



## CHAPTER 6 URBAN ECONOMY

### 6.1 Improvement of Municipal/Local Finance

Indonesia's state finance policies are guided to 1) encourage measurable and sustainable fiscal, 2) strengthen fiscal capacity, 3) widen fiscal space, 4) improve the quality of State spending, 5) strengthen local finance management in line with the fiscal decentralization, and 6) strengthening budgeting finance management. Following the execution of decentralization in 2000, the allocation of national budget for local governments has increased in the form of Special Allocation Funds (Dana Alokasi Khusus/DAK), General Allocation Funds (Dana Alokasi Umum/DAU) and Revenue Sharing Funds (Dana Bagi Hasil/DBH). These funds have increased from Rp. 129,7 Triliun in 2004 to Rp 513,3 Triliun in 2013. This shows that local governments have greater responsibilities in the state finance management.

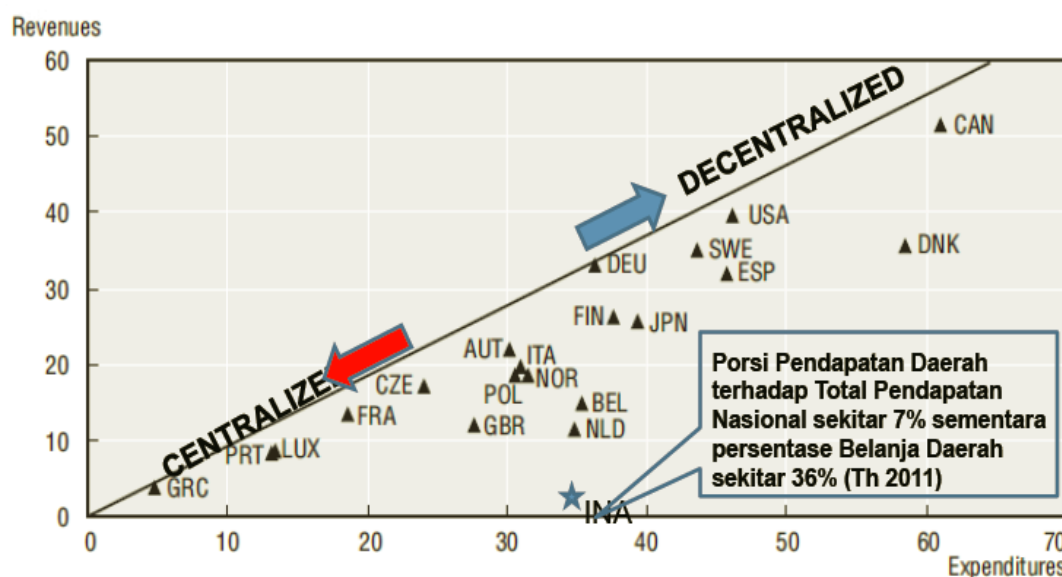
The increasing urban population, leads to higher demands in urban services, housing and social security that should be managed transparently and accountable by local governments. This requires the capacity of urban managers in planning, budgeting and managing public finance.

The national government continues to support local finance with policies to increase the capacity of local governments, such as:

- Greater authority to local governments for local taxing power (determine and collect taxes and levies) to their residents based on Law Number 28/2009 on Improvement of Local Accountability in Public Management;
- Providing certainty to private sectors on the types of local levies;
- Authority to local governments to issue local bonds to finance infrastructure investment, in order to ensure public services and local revenue as enacted in Government Regulation No 30/2011 on Local Lending - part of Bappemam Regulation Package);
- Capacity building for local bureaucrats through training by the Ministry of Home Affairs, Bappenas and the Ministry of Finance;
- Encouraging local innovation and creativity in managing local finance system, through appreciation, facilitation, and assistance.

Although local governments have autonomy in public finance, the capacity of local governments to increase their revenue is s limited. The allocation of national government budgeting for local governments is still high, except in DKI Jakarta. Figure 6.1 shows that in 2011, the average proportion of local revenue to the total revenue is only 7% in Indonesia (the lowest amongst other developing countries). Meanwhile the proportion of spending to the total local revenues is higher.

Thus, the sharing of the national government continues to be dominant in the local budgets. The proportion of fiscal balance (*dana perimbangan*) to the total local revenues in 2012 reached to 20%. Within this fiscal balance, the general allocation funding (DAU/Dana Alokasi Umum) for public servant wages contributes about 70%. Meanwhile in the same year, revenue sharing fund (Dana Bagi Hasil/DBH) extends to 21.4% and Specific Allocation Funding (DAK) is the lowest. Looking at the trend, the proportion of transfer of payment from the national government is declining slowly. The proportion of local revenues to the total revenues at the district/municipality level goes up to 9-10%.



**Figure 6. 1 Proportion of Local Revenues and Local Spending to the Total National Revenues**  
Source: Ministry of Finance

For municipalities which have higher fiscal capacity, non-government revenues can be initiated such as by issuing municipal bond, private public partnership, or asking for local loans or foreign loans. This requires not only solid fiscal capacity, but also securing reliance on legal aspects. Often the local government lose financial disputes with the private sector.

Property tax (*Pajak Bumi dan Bangunan/PBB*) is an instrument that can improve local revenues. However, it cannot be separated from the capacity to provide urban services. This type of tax, often referred to as ‘betterment tax’ can be aimed to increase competitive capacity of a city.

With rather high purchasing power of urban residents, the municipalities can explore charging urban levies more than districts. The capacity of fiscal governance determines the ability to charge the residents viably. As an example, parking fees in Surabaya are higher than that in DKI Jakarta, despite the fact that the Jakarta has a higher levy base, which is the number of automobiles, than Surabaya.

## 6.2 Strengthening and Improving Access to Housing Finance

According to Statistics Indonesia (2010), tenure arrangements of households are as follows: 78% of households own their house, 4% lease, 4.2% rent, 2% rent free, 9.7 % live with their parents or relatives, and almost 2% have other types of tenure arrangements. Based on how households obtained their housing, about 67% of households construct their own houses (self-help), 6% buy their house from previous home owners, and 3% buy their house from private developers.

Many households pool their own financial resources to gain access to housing. The resources can be from savings, borrowing from family/relatives or borrowing from lending agencies. Statistics Indonesia show that about 70% of households paid cash for their house, 18% rely on home mortgage and 7% use other forms of credit.

Lending agencies play a vital role in increasing household capacity to either buy or rent housing. However, the prudential principles of lending agencies results in limited access to home mortgage – only households with fixed income and financially viability can access home mortgage. Most of these households work in the formal economy sector. Only 2.5% of households with non-fixed income and

working in the informal economy sector, can access home mortgage (source Ministry of Housing Report, 2014).

### ***Housing Finance Policy Interventions***

Three major policies support the housing finance policy framework: i) strengthening the efficiency of the primary housing market, ii) developing secondary mortgage finance, and iii) housing finance assistance programs. These policies aim to improve the low-income households affordability and accessibility to housing finance.

- 1) Strengthening the primary market, through increasing efficiency and fiscal incentives (down payment subsidy, value added tax, soft loan for down payment, credit insurance and credit guarantee.
- 2) Development of housing finance such as housing finance assistance for civil servants (through Bapertarum PNS) and secondary housing market. Efforts to support secondary market began since 1998, but was realized in 2005 with the establishment of PT Sarana Multigriya Finansial (PT SMF) by President Regulation no. 19/2005.
- 3) Home mortgage for low-income households) supported with liquidity facility (known as KPR FLPP) enables a lower than market interest rate of 7.25% (compared with current market interest rate of 12%) for a tenor of up to 20 years. This rate has been lowered to 5% since 2014 to be more affordable for low-income households.

The national government has not yet found effective strategies for sustaining the program on housing provision in the long term. The involvement of local governments to support housing finance has not been significant. Housing financial scheme mostly relies on private banking and financial institutions. Such limitation enforces local governments to play safe and just await grants for housing. Such situation is complicated by difficulties in acquiring land. The land price in urban areas increases significantly, as a result of a dysfunctional land market. This makes housing the low-income households more difficult.

Besides government policies, there are efforts by stakeholders to increase access to housing for the low-income such as:

- Bank Indonesia Employee Association cooperates with housing developers to provide housing for their employees, including contractual workers. They formed Bank Indonesia Outsourcing Forum (FOBI) to guarantee contractual workers to gain access to home mortgage. FOBI selects, verifies and monitors commitment to housing loan payment on a monthly basis;
- The municipality of Palembang established a guarantee company (PT Sarana Pembangunan Palembang Jaya). The guarantee company cooperated with Bank Sumsel-Babel to assist informal sector workers to access home mortgage;
- The municipality of Pekanbaru adopted a land readjustment scheme from Japan to gain access to land for highway and housing development. The local government of Gowa adopted a similar approach to construct their highway;
- Community-based voluntary initiatives to hand over land for public facilities such as in Kampung Improvement Program in many cities of Indonesia.

Despite the fact that many efforts to overcome barriers on housing supply, challenges exist such as:

- More than 80% of houses in Indonesia are self-help and self-constructed. Yet most housing finance programs are targeted towards housing provided by developers.
- Those involved in self-help housing often work in informal sector. About 70% of Indonesians work in the informal sector, with unstable income that leads to limited access to formal housing loans from banking institutions
- Uneven population distribution, concentrated population in urban areas and limited government-sponsored funding often causes construction of illegal settlements;
- Non-banking financial institutions such as multi finance institutions or cooperatives to help fund housing loan scheme need to be explored;
- The government has not been firm in implementing control on per capita housing size, which is precedent to housing overcrowding in low-income areas in central part of the cities. Residents in crowded houses are mostly new migrants potentially create slum situations.
- No regulation is set for rental agreement between renters and individual landlords to protect their rights and exercise their duties. Both parties are prone to be exploited by the other.

In Indonesia, the founding of State Savings Bank (Bank Tabungan Negara/BTN) in 1897 with the name of *Postpaar Bank*, marked the beginning of formalizing housing finance scheme. In 1963, *Postpaar Bank* changes to BTN. In 1974, the Ministry of Finance gives mandate to BTN to create housing loan scheme (KPR) that was then launched in 10 December 1976. As a result of economic crisis and reform of 1998, BTN credit rating dived and its high loans is at stake, which reduce its roles as a provider of KPR. Since 2003-2004 when macroeconomic stability matures, BTN revives and is able to focus their performance on (i) *Mortgage Loans and Consumer Banking*; (ii) *housing and commercial banking*, and; (iii) *Syariah Banking*. Such focus is supported by: (i) Bank Indonesia which strengthen their monitoring and create Saving Guarantee Institution (*Lembaga Penjamin Simpanan/LPS*) and Financial Service Authority (*Otoritas Jasa Keuangan/OJK*); (ii) many other financial institutions which offer housing loans and allow for 25% of market share by BTN; (iii) improving *Legal Mortgage* dimensions; (iv) provision of more transparent housing credit schemes to allow viable households to access credits; (v) allowing to form a secondary housing mortgage market.



**Figure 6. 2 State Savings Bank (BTN) Housing**

Source : [www.kompas.com](http://www.kompas.com)

BTN resumes its roles to extend their services on housing loans to middle and low income groups. Increasing access to housing loan is executed through: (i) opening market opportunities and reducing risks by making prospective borrowers viable to housing loans; (ii) opening opportunities to short term housing loans; (iii) opening access on housing market information to reduce transaction costs; (iv) synchronizing tax policies with secondary housing market; (v) optimizing financial resources for liquidity facilities.

### **6.3 Supporting Local Economic Development**

Laws and policies as the main orientation in housing finance comes from: (1) Law Number 32/2004 on local government; (2) President Instruction Number 3/2006 on Improving Climate for Investment Packages; (3) Government Regulation Number 45/2008 on Guidelines for facilitating investment at the local level; (4) Government Regulation No. 50/2007 on Separation on function between provincial governments and districts/municipalities; (5) Ministry of Home Affairs Regulation Number 24/2006 on Guidelines for One Roof Public Service Policies, and; (6) Ministry of Home Affairs Regulation Number 20/2008 on Guidelines on Organization and Governance of License Issuance Unit at the local level.

Many laws and regulations have been put in place by the national government to encourage economic growth of urban areas, especially to increase their competitive edge. In implementation, barriers are recognized as: (i) limited understanding and awareness on the importance of urban competitive edge as a basis for investment; (ii) weak human resources capacity in many municipalities; (iii) over enthusiastic efforts to increase local revenues that backfire in the form of high costs; (iv) weak implementation in good governance, and; (v) limited cooperation and synergy between municipalities to increase competitive aspiration from various dimensions (socio economic and environmental).

Megapolitan, metropolitan and large cities, although has a slow population growth, is favored by investors for their updated state of infrastructure and large urban agglomeration. For example, in 2013, Java Island absorbs Rp 66.5 trillion or 52% of total national investment (PMDN), and US\$ 17.3 billion or 60% of total foreign investment (PMA). The province of West Java and DKI Jakarta gets a lion share of investment.

Economic activities concentrated in urban areas attract migrants endlessly especially the youth and highly educated ones. They are the ones contributing to urban growth. A Study by the World Bank (2012) though mentions that urbanization in Indonesia does not significantly contribute to economic growth. Only about 1% of increased urbanization level triggers 2% growth of per capita income. In China and India the growth of per capita income reaches 6%, in Vietnam 8%, and in Thailand 10%. Declining growth of manufacturing sector and high contribution from informal service sector in urban areas underwrites high correlation between urbanization level and growth of per capita income.

A study by McKinsey (2012) shows that during the period of 2002-2010, Jakarta economic growth touched annual 5.8%. While such growth in other cities is higher, for example annual 6.7% in large cities (population between 5-10 millions), annual 6.4% middle cities (population between 2-5 millions), and annual 5.9% for small cities (population between 150 thousands - 2 millions). This indicates that small and medium cities are attractive to investors and in the future their growth may be hampered by “congestion cost” if their connectivity is not supported and anticipated. Such connectivity should be in line with improved logistical systems that allow middle cities to be the hubs. Small cities on the other hand, have annual economic growth of 5.3%, below national average of annual 5.9%.



To improve urban productivity, Presidential Decision Number 10/2011 is implemented to reduce the number of low income groups living in urban areas via urban PNPM managed by the Ministry of Public Works. Their programs include: (i) areal infrastructure construction; (ii) improved quality of settlement environment; (iii) development of new settlement; (iv) revitalization of functional areas. There is also inter-ministerial programs such as: (i) low cost housing program; (ii) low cost public transportation program; (iii) public clean water program; (iv) low cost electricity program; (v) improving fishermen livelihood program (coastal cities); and (vi) peri-urban community livelihood program.

In 2009, Statistics Indonesia notes that 68% of employees in Indonesia work in the informal sector. A study by ILO and Statistics Indonesia (2009) shows that informal economy in Indonesia is a rural and urban phenomena. Informal sector increased since the economic crisis of 1998 and was a economic transition from agriculture (informal) economy to manufacturing (formal) economy. Formal sector economy growth and job opportunities in urban areas is limited, so it is unavoidable that many people engage in informal economic activities. In fact, informal sector even in urban areas are a major force in urban economy of Indonesia. Cottage industries and self-employment form the largest informal economic units and play parts in urban economy of Jakarta, Surabaya, and Medan. These units often work in food, trade, transportation, and other individual trade professions.

For the last ten years, creative economy emerges and becomes dominant in urban areas of Indonesia. Cities as a center for creative activities supported by rich local culture intertwined with modern sector skills producing goods and services as actualization of creativity. From visual arts to moving arts, from installation to three dimensional arts, musical plays, cultural exhibitions, fashions, films, animation, and traditional food are some of the products /services worth considering. Creative economy in urban areas stretches beyond its physical boundaries and draw people to visit the areas. A model of theme-based *kampung* (*kampung tematik*) in Surabaya is one example of creative city promotion.

Urban economic development of these cities have been encouraging, the municipalities also streamline licensing process to be professional, transparent, accountable and certainty for private sector. The Policy on One Door Integrated Services (*Pelayanan Terpadu Satu Pintu*/PTSP) needs to be improved up to the point of using on-line services. Public participation such as executed by Monitoring Committee on Local Autonomy Implementation (*Komite Pemantauan Pelaksanaan Otonomi Daerah*/KPPOD) is valuable to promote a conducive environment for local economic development.

To accelerate economic growth and social welfare in many parts of Indonesia, the government has designed a Grand Design for Economic Development. The grand design has identified priority strategic areas for economic development in Sumatera, Java, Kalimantan, Sulawesi, Bali – Nusa Tenggara, and Maluku – Papua.

## **6.4 Creating Decent Employment and Urban Livelihoods**

Economic and political aspects. Based on this stability, private sector, investors engage in productive capacity that create employment, and reduce poverty level, either in urban or rural areas.

During the period of 1990-1996, Indonesian economic growth was about annual 6.5-8.2%. Per capita national incomes increase significantly and reached US\$ 1.100 in 1996. After the economic crisis of 1997, the economic growth of Indonesia declined to 4.7% (1997) and even shrank to minus 13.13% (1998). The resignation of Suharto in 1998 a new era of economic development restructured and in the period of 2000-2013, resulted in an annual economic growth between 3.6–6.5% - lower than

that before the crisis. Sources of economic growth rely on consumer spending while investment as percentage of GDP only contributed to 4%, below the number before the crisis which is 6-7%.

The dynamics of economic development influences socio economic situation especially poverty level and unemployment level. The percentage of poor people to the total population increased from 11% (1996) to 24.20% (1998) and 23.43% (1999). As a result of implementation of social safety net policies, the number of poor people decreased to 17.75% (2005). Similar patterns found in unemployment level. In 1996 unemployment level was 4.87%, then increased to 10.45% (2006). Continual policies on economic recovery has contributed to reducing poverty level in 11.57% (2013), and unemployment level 5.92% (Februari 2013) – 6.25% (Agustus 2013).

The implication of those two levels on the welfare of society represented by per capita income shows that dynamic situations creating instability. In 1996, per capita income of Indonesians was US\$ 1.154, flunk to US\$ 470 (1998), and slowly ascent to US\$ 3.475 (2013). Human Development Index as a measurement of development success reaches 67.7 (1996), descended to 64.3 (1999), and as economy recovers the index gains 73.29 (2012).

Economic crisis of 1998 was more of urban phenomena, especially in Java island, where urban, formal sector oriented population was hit harder than those living in rural areas, especially outside of Java island and export-oriented sector.

Urban-rural configuration shows that urban poverty level tends to be lower than that in rural areas. In 1996, urban poverty level was 9.70% and rural poverty level was 12.20%. After the economic crisis of 1998, poverty level in urban areas flunked to 13.47% and in rural areas to 21.81% (2010). In 2013, these number descents to 8.39% in urban areas and 14.32% in rural areas.

In contrast with poverty level, unemployment level is higher in urban areas than that in rural areas. Between 1994 and 1997, unemployment level 12.3% in urban areas and 8.71% in rural areas. In 2004 such level reaches 9.5% in urban areas and 4.4% in rural areas. The main concerns is that urban employment is more formal than that in rural areas, thus the category of unemployment was recorded better. In general, open unemployment in urban areas is two or three times higher than that in rural areas (ILO, 2004). Youth unemployment level in urban areas is also higher than that in rural areas. This indicates that urbanization may be dominant by the youth population.

Urban areas provide varied and evolving decent occupation. Modern service sector such as financial services, trade, logistics, and other types thrives in urban areas, creative economy is another urban oriented economic sector that expand as well. There is no denying that monthly expenditure of urbanites increased from Rp. 627 thousand (versus Rp 371 thousands in rural areas) in 2010 to Rp. 807 thousand (vs Rp 461 thousands in rural areas) in 2012. A disparity, measured by household expenditure ratio in rural and urban areas, expand from 1.69 in 2010 to 1.75 in 2012.



**Figure 6. 3 Street Vendor Shelter Center in Taman Bungkul Surabaya**  
(Source: Assets.kompas.com)

The phenomena of informality paints the urban landscape in Indonesia. Urbanization level that cannot be accommodated by the modern, formal sector is absorbed by the informal sector. Those works in informal sector are often lowly educated, low productivity that command low wage. However since such sector is not yet replicable by other strategies and policies, high urbanization level will be attracted to this sector which is marked by easy entry level. Thus urban managers need to pay attention to the future of informal sector.

Some cities have been successful in accommodating informal sector activities and increased local revenues. Cities such as Solo and Surabaya, manages and reallocate their informal sectors to particular spots equipped with basic infrastructure (Figure 6-4). Surabaya goes further by furnishing their informal sector sites with free wi-fi for their consumers. However, the huge growth of the informal sector is sometimes beyond the capacity of local government to provide the appropriate space.

Partnerships between private sector and local governments in relocating informal sector is executed through Corporate Social Responsibility (CSR). It is mandatory for private sector to engage in CSR, as legalized in Government Regulation Number 47/2012 on Social and Environmental Responsibility of Corporations. Some private sector uses their CSR funding for informal sector relocation in Jakarta, and some provides loans to the informal traders.

## **6.5 Integration of The Urban Economy into National Development Policies**

The Law Number 17/ 2007 on National Long Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional /RPJPN*) states that the goal of urban development in Indonesia is to: (i) balance development between cities such as megapolitan-metropolitan-large cities – medium cities – small cities; (ii) manage growth of megapolitan, metropolitan, and large cities; (iii) accelerate growth of small and medium cities, especially located outside of Java island, and; (iv) strengthen economic linkage between rural and urban areas in Indonesia.

Another Law, No. 26/2007 on Spatial Management and Government Regulation Number 26/2008 on National Spatial Planning, determines that National Urban Development System consists of seven National Strategic Areas (*Kawasan Strategis Nasional/KSN*); 38 National Activity Cores (*Pusat*

*Kegiatan Nasional/PKN*); 177 Regional Activity Cores (*Pusat Kegiatan Wilayah/PKW*), and 26 Local Activity Cores (*Pusat kegiatan Lokal/PKL*). With this statement, priority of urban development program can be determined in order to ensure synergy between growth centers optimally manifests.

Continual urbanization level threatens the quality of urban services especially when the municipalities are not equipped with adequate capacity to make the cities livable. Programs such as livable cities are not easy to establish. The Ministry of Home Affairs once surveyed cities on whether or not urban service standards are met, the result shows that many cities are not prepared to develop standardized urban services to serve its residents (Minister of Home Affairs Regulation *Number 57/2010*). Many urban facilities such as basic infrastructure, potable water, sanitation, housing, education and health facilities, market, safety and security, social harmony, natural environmental protection remains sub standards.

Urbanization level has expanded areas to be declared as urban, form municipalities and become the so called autonomous cities. In 1990 there are 73 autonomous cities, in 2012 the number of cities has grown to 98. Urban areas continue to expand beyond the boundary of autonomous cities. The so called urbanized areas at the sub district level emerge to counter the need for urban agglomeration and economic of scale especially to create trade. Meanwhile, the capacity to provide urban services is far from adequate.

From the economic point of view, urban areas are the strategic core of the national economy, especially with the service sector such as finance and banking, commercial and trade, non financial services as well as manufacturing sector. Megapolitan, metropolitan and large cities, in Java and Bali islands, contributes the higher proportion to the GDP. Economic growth of medium and small cities on the contrary remains insignificant, in spite of their high economic growth. Between the period of 2005 – 2010, economic contribution of 98 autonomous cities to the GDP reaches 40%. Metropolitan of which only 15% of total autonomous cities, contributes 27% to the GDP. Medium cities which consist of 56% of total autonomous cities contribute 7%. While small cities which consist of 11% of total autonomous cities contributes 11% to the total GDP.

Large disparity between metropolitan and large cities located in the west side of Indonesia (Kawasan Barat Indonesia /KBI) with that on the east side of Indonesia (Kawasan Timur Indonesia/KTI) creates negative impacts either to the large cities and metropolitan or to the medium and small cities. For large and metropolitan cities, such negative impacts are: (i) over exploitation of natural resources adjacent to the cities to support growth of metropolitan;(ii) emergence of *urban sprawl* that encroach agriculturally productive land for built up areas; (iii) environmental degradation in urban areas which influence urban quality of life; (v) emergence of sporadic new housing estates that burden urban centers; vi) mounting pressure to provide urban infrastructure either in quality or quantity. Such trend indicates that “*diseconomic of scale*” in metropolitan and large cities of Indonesia slowly seep in.

At the same time, decreasing public investment (in infrastructure and urban services) limited human resources capacity, and limited funding capacity in medium and small cities dissociate these cities from providing adequate urban services. Thus, accelerating development in small and medium cities is essential if not necessary to become new centers of urban Indonesia.



## CHAPTER 7 HOUSING AND BASIC SERVICES

Indonesia had recognized urbanization and settlement densification as challenges since 1985, and had enacted Law No.16 Year 1985 on Apartments as response, which mainly regulates development of apartments/flats, either by the state or private sectors, as well as rights and responsibilities of living there. The private sector's response toward this law was positive and had generated rapid supply of private sector-built apartments. In 2011, Indonesia revised this law with Law No. 20 on Apartments that further emphasize the roles, rights and responsibilities of all parties involved - tenants, governments, local government and developer, as well as rights for building use. It also corrected the previous law which was criticized of allowing private sector to cater to a certain market group only, and ensure that provision of apartments remain inclusive. The revised law is also considered more attuned with the revised housing and settlement law that was also enacted in 2011.

A more general housing and settlement policy was the Law No.4 Year 1992 on Housing and Settlements, which regulates: a) development of large-scale settlement on ready-to-built areas (a large plot of land that are already equipped with facilities and provided by the government – *kasiba*); and b) mandate for the local government to determine areas categorized as slums and mobilize efforts to improve its inhabitants' living condition. Unfortunately, these resolutions were not implemented during that time and was revised with the aforementioned Law No.1 Year 2011 on Housing and Settlements, not only due to the above reason, but also because of the following factors: a) relevancy with the political changes in relation to the amendment of constitution; b) correction to the content of the previous law that considered lacking in implementability as it was closer to being a policy program, instead of a policy directive; and c) lacks of clarity in roles and responsibility of state, particularly on its partiality to the underprivileged, and minimum role of the local government.

With the 2011 Law, government's responsibility, central or local, is more ascertained. Slums are not only upgraded, but also prevented. This legal product is more comprehensive and emphasized the roles and responsibility to manage and provide housing and settlement areas at the national and local level, albeit the absence in mentioning its implementing instruments. This, a condition where the political will tends to be more ambitious and advanced from feasibility to implement, is often the case in Indonesia. Still slum upgrading efforts continue to thrive with the current institutional arrangement that had been in place since 1999.

Indonesia also had developed its Long-Term Development Plan (*Rencana Pembangunan Jangka Panjang* - RPJP) for 2005-2025, which stipulates the target to have cities without slums by 2025, which was later on accelerated to 2020 to make it aligned with the *Millennium Development Goals* national targets. To accomplish this target, two major focuses are on slums area upgrading and provision of adequate housing for urban poor. In accordance with the National Program on Slum Upgrading 2015–2019, the policy's main agenda is to:

1. Provide an enabling environment
2. Improve the quality of life in slums
3. Prevent new formation of slums





**Figure 7. 1 Transformed Slums into Green Kampong in Surabaya**

Source: Team Housing and Basic Urban Services, 2011

## 7.1 Slum Upgrading and Prevention

Inspired by the slum upgrading initiative that had been ongoing since the Dutch colonia era (then was referred to as *Kampoeng Verbetering*), in 1969, the Provincial Government of DKI Jakarta pioneered a government program to upgrade informal settlements (widely known as *kampung*). This initiative was then replicated in Surabaya, although not as massive and extensive as the scale in Jakarta. Upgrading means improving the built environment, such as road paving for transportation or footpath, drainage, clean water supply and facility for waste management, and sanitation.

In 1982, *Kampung Improvement Program* was adopted nationally and replicated in several cities with loan funding from World Bank and Asian Development Bank. However, the program design was criticized for lacking in human development aspect and merely focuses on improving the physical environment. Community was seen as object, instead of potential partner and subject of the development. Learning from this, three of Indonesian cities, namely Cirebon, Bandung and Surabaya, with the support of several international institutions such as WHO, UNEP and UNDP, started to experiment with the concept of community empowerment in their *kampung* improvement program. This then give birth to a three-pronged approach of *Tribina* in 1989, that focus on a holistic development of social, economic and environment.

By mid 1990s, these loan-funded program were closed, however several cities, namely Surabaya, continue to undertake the approach by employing three kinds of slum upgrading program: i) the Neighborhood Improvement Program (*Proyek Perbaikan Lingkungan Permukiman – PLP*), which was initiated by the relevant community themselves. Local government provided financial support in a certain amount, and the rest of the desired construction cost will be borne by the community; ii) the urban poverty alleviation program (*Program Pengentasan Kemiskinan Perkotaan – P2KP*) that was actually an adoption of a national-level program; and iii) Housing and Settlements Improvement Program, which was initiated by local government, where the program provided construction materials to low-income households.

In 1997, Indonesia suffered from monetary crisis that led to political reformation. To buffer the impact of the weakened economy, government initiate Local Empowerment To Address Economy



Crisis (Program Pemberdayaan Daerah dalam mengatasi Dampak Krisis Ekonomi – PDM DKE), which amongst others include physical upgrading of kampong to stimulate new job opportunities. This program was then continued with P2KP in 1999. P2KP was intended to accelerate poverty alleviation effort strategically. This program includes development of institutional capacity as social capital to be gained in the future. The program's goal was to establish civil society that is innovative, forward-looking, self sufficient and prosperous in a healthy, productive and sustainable environment. Therefore, P2KP assisted urban community, particularly the poor, to collaborate with local government and concerned local group. Empowerment was done through capacity building, resource provision and institutionalizing partnership amongst stakeholders.

P2KP has three targets that are to 1) Build/develop community-based organization that are vocal and accountable in conveying the voice of the poor; 2) Encourage local government to be more responsive to poor community's needs through partnering with other group in the society; and 3) to improve the delivery of service to the poor, including for financing, social security and housing facilities

The main feature of this program is that it emphasizes more on social capital development. The process of housing provision serves as means to improve the community's capacity as a form of investment to generate social capital. During the P2KP implementation period, *Tri Daya*, was introduced and employed, in which it included an additional element of community empowerment. By using this concept, the government took a newly defined role of an enabler, instead of a provider.

The intended result of P2KP was to improve social capital in slum communities, create a more productive community and resources to achieve a healthy, productive and sustainable living environment. The tool to achieve the desired results was by institutionalizing local organization, which later on would function as the platform to voice the poor's aspiration and needs. The local institution is titled *Badan Keswadayaan Masyarakat - BKM*). This organization continues to be recognized as the driving force behind all poverty alleviation efforts in cities and regencies.

The P2KP program comprises of the following components:

1. Technical Assistance for Community Empowerment and Local Government Capacity; which included a series of training, learning process and experience sharing that were intended to build critical awareness as well as to promote community-driven social change;
2. Provision of cash transfer (*Bantuan Langsung Masyarakat -BLM*); to be used in accordance to upgrading plan and activities that were agreed within the communities, and also had been included into the mid-term poverty alleviation plan(*Program Jangka Menengah Penanggulangan Kemiskinan -PJM Pronangkis*);
3. Poverty Alleviation Fund (*Penyediaan dana Penanggulangan Kemiskinan Terpadu - PAKET*); a stimulus to increase number of partnership between community and local government to allow learning process on good governance implementation that is more accommodative to community's needs and also transparent, effective and accountable;
4. Fund for Neighborhood Physical Environment Improvement (*Pembangunan Lingkungan Permukiman Kelurahan Terpadu*); which was intended as support for BKM that had obtained qualification of becoming self-sufficient, to be more empowered in accommodating various initiative and aspiration from the community to achieve better and more harmonious state of living.

P2KP was much more complex than KIP and its result is not immediately tangible. Institutional development was one of the efforts to form social capital that will require long-term investment, much

longer than the duration of any physical program lifetime. Hence, it is paramount to ensure that there is a social institution in place that will continue to preserve the program's social capital. Social capital includes institutional and relational aspects. The institutional aspects covers the issue of roles, regulation, proeures and sanctions, whilst relational aspects covers ideology, value, belief and behavior, which are highly complex and polarized in the melting-pot urban areas. The rich diversity of origins, stratification and social differentiation that were formed through, amongst others, economic groupings, had hampered any efforts to develop social capital. Still social transformation efforts continued to be pushed, particularly under the wing of a national program, titled National Program for Urban Community Empowerment (*Program Nasional Pemberdayaan Masyarakat (PNPM) Perkotaan mandiri*). Up to 2014, the program had benefited 364 neighborhood associations (*Rukun Tetangga - RT*), which comprise of 21.270.656 people (data SIM, PNMP 2014).

Since 2014, the national government launched the 100-0-100 program, that is to reach the target of 100% access to clean water, zero slum areas and 100% access to sanitation by the year 2019. The main strategies are to improve the water and sanitation system, capacity building for local governments and empowering communities.

It is then apparent that slum upgrading efforts in Indonesia had evolved, from mere physical upgrading to fostering social capital. The success of the mentioned programs can be indicated with the emerging force of small medium enterprises that are innovative.

## 7.2 Improving Access to Adequate Housing

Indonesia's housing policy is developed to address housing backlog (where housing stock is lower than household demands due to slow growth of housing supply compared to the rapid grow of households number). Unfortunately, number of housing backlog in Indonesia had not been intensively monitored, and was only obtained through one housing survey in 2000. Based on the survey, there were 52, 008 miion households against 47,275 millions dwellings. From the survey, it was also identified that there were 5,207 million non-residential buildings and mixed-use dwelling that were used as residential. In 2010, a population census was undertaken and it identifid that number of household had increased up to 61,156 million, and 2013, based on registration, there were 62,051 millions households (number of houses was not part of the obtained data in the census).

The number yielded result that 11,58% of households in Indonesia had no certainty living status and around 10% live in inadequate dwellings. Although the data is arguable and cannot be used to reflect the social and economic context that are also attributive in determining adequacy of dwelling, this number was actually used as basis in determining future housing needs and home improvement. Based on this analysis, a policy to increase housing access was also formulated.

**Table 7. 1 Household Percentage Based on Ownership Status and Housing Condition**

Indicator	Urban	Rural	TOTAL
Owned	72.17	88.07	80.18
Rent	15.28	1.32	8.24
	87.45	89.39	88.42

Indicator	Urban	Rural	TOTAL
Widest roof size – non palm fibre and others	99.31	94.71	96.99
Widest wall – non bamboo and others	94.39	85.72	90.02
Widest floor – non solid ground	96.60	86.17	91.34
Floor per capita < 7.2 m2	13.84	11.37	12.60

Source: Statistics Indonesia (2011)

The policy to improve housing access in Indonesia employs two approaches:

1. Supply-side approach, which was undertaken through larger supply of housing stocks by government, national and local, as well as encouraging the private stock to contribute to the number. To ensure inclusive provision, national-level government orients its focus on low-cost flats (*rusunawa*), whilst private sector on landed houses or high-rise buildings. Incentives to private sector include support for facility provision, less administrative requirements and tax cuts. Within the period of 2011 – 2014, the government had targeted housing stocks in the amount of 1000 000 unit.

#### **Box 7. 1 Low-cost Flats/Rusunawa Bayuangga, Probolinggo Fostering Sense of Ownership**

Municipal government of Probolinggo has high commitment to upgrade slum areas within the city, be it funded from APBD or through partnering with central, provincial government and other institution (local or international). Low cost apartment was considered the most suited alternative to be accessed by low-income community. Bayuangga apartment is a low-cost apartment specifically constructed for such purpose, with over 196 room units. Tenants are not only the local community, but also labor workers in the surrounding industrial zone. Rental fee are considered highly affordable; first and second floor IDR100,000/month (USD\$10), third and fourth floor IDR90,000 and fifth floor IDR80,000.

It was not an easy process at the beginning to persuade the community to relocate. The selling factors are the provided facility (park, praying ground /*musholla*, sport court, etc) and of course, the rigorous and socially sensitive socialization. Through *RT/RW*, the community was introduced to clean living in a formal environment. Diversity of the tenants were accommodated through ranges of activities, which able to foster a sense of us and ownership. Tenants also experience firsthand that the myth that living in apartments will reduce quality of living is proven to be untrue, and in fact, they have higher quality of living compared to when previously occupying the denser kampung.

*Source: Ministry of Public Works, 2012*

2. Demand-side approach, through housing financing scheme that is intended for low-income households (households with income not higher than \$350 per month). This group is considered to still able to access housing finance. For these households, government provides Housing ownership Credit program (*Kredit Pemilikan Rumah/KPR*) that is supported by Housing and Settlement Liquidity Program (*Fasilitas Likuiditas Perumahan Permukiman/FLPP*) as an innovative housing finance for low-income group. Participating banks should only provide

25%, whilst the rest is to be supported by the FLPP. The bank has to comply with government terms, amongst others mortgage period and interest rate. For households that have lower income, a cash transfer scheme to renovate their house is in place.



**Figure 7. 2 Low-cost Flats (*Rusunawa*) in Bayuangga, Probolinggo**  
Source: Ministry of Public Works & Housing, 2012



**Figure 7. 3 Self-help housing in Surabaya**  
Source: Housing and Basic Urban Services Team, 2011

### **7.3 Ensuring Sustainable Access to Safe Drinking Water**

Like any tropical country, Indonesia has rainy seasons that are formed based on three different rainfall patterns, which are monsoon, equatorial and marine. Most of Indonesian cities have high rainfall intensity (2000 mm – 3000 mm/year), although there are also those with less than 1500 mm/year. Not only are there differences in rainfall intensity, cities also experience differences in rainfall distribution within one year, where it could be abundant at a specific period of time, and scarce at the other. Having said that, Indonesia is considered to be abundant with water, with 3,22 trillion cubic metre of water resource potential, which is equal to 16.800 cubic metre of water supply per capital per year. This geographical and topographical advantage makes most settlements in Indonesia feel comfortable to rely on groundwater supply and shallow water.

However, urbanization-led densification, reduced water catchment area and groundwater pollution due to inadequate sanitation system, had caused shallow groundwater unable to be used by households. Centralized river water treatment or other water source treatment was then developed to substitute the reduced supply of shallow groundwater. In 1970, the central government encouraged and facilitated establishment of Regional Water Utility Company (*Perusahaan Daerah Air Minum* - PDAM). At the time, national production nett was only around 15.000 liter per second, however now had reached up to 100.000 liter/second. Number of PDAM in 2006 is around 253 companies and escalated to 350 by 2013. Clean water supply from PDAM continues to grow by 2% each year. Number of households connected with clean water supply had also increased from 19.5 million households in 2000 to 26.24 milion households in 2006, and 28.8 million households in 2013.

Nevertheless, clean water supply remain to be a challenge, particularly in Java island where the density level (136.61 million people by 2010) pollutes available water source, and in Kalimantan island, where the water quality is low due to its high concentration of metal, which makes it difficult to be treated into clear water. To address this issue and improve clean water service delivery, in 2005, Agency for Development of Water Supply System (*Badan Pendukung Pengembangan Sistem Penyediaan Air Minum* - BPPSPAM), a non structural body under the Ministry of Public Work, was established. The body aims to: (a) provide management and delivery of good quality clean water that is affordable; b) achieve a balanced relation between consument and service provider; and (c) increase efficiency and coverage of clean water service delivery. This body since 2006 had monitored PDAM performance, including its financial, operational, service and human resource condition to categorize which PDAM is performing and which is not. By 2006, only 18% was categorized as performing in 2006, but the number had increased to 50% in 2013.

#### **7.4 Ensuring Sustainable Access to Basic Sanitation and Drainage**

Sanitation is hygienic means of promoting health through prevention of human contact with the hazard of wastes that can endanger health and living condition. Indonesia employs two kinds of means. First, is the social and cultural approach, which was done through internalizing values of clean and healthy living. Second, is the physical engineering approach, which is to provide physical intervention to technically prevent direct contact. The latter can be done individually, at community level or city-scale. City-scale sanitation engineering was considered revolutionary since the mid 19<sup>th</sup> century in Europe, but only by 1910 this was done in Indonesia, particularly in Bandung, Cirebon, Surakarta dan Sawah Luntho, which at the time held high percentage of European residents, where the Europeans used the sanitized part of the city exclusively. Afterward, Indonesia's city-scale sanitation system continues to be developed, however up to now only available in 10 large and 2 small cities. This is understandable since city-scale sanitation system requires financial investment of around \$400-\$500 per household, which was mostly unaffordable by Indonesian households. Urban residents build their own sanitation system, or utilize river and public water source for defecation. In 2000, a presidential instruction on mass toilet construction was enacted. This policy was not very effective as only 60% of the facility that were used continuously, whilst the rest were unmaintained or even unused.

After 2000, the government launched an overarching policy approach in providing a community-based environmental sanitary. Government programs under this are:

1. Community-based sanitation (*Sanitasi berbasis Masyarakat* – SANIMAS) that was launched back in 2003 to pilot the Drinking Water and Environmental Sanitary (*Air Minum dan Penyehatan Lingkungan* - AMPL) Policy. The program design featured community's voluntary contribution in the process. After considered as a success, Ministry of Public Works established



Sanimas as a national program, collaborating with over 100 local governments and supported by BORDA (NGO) and its networking partner. Up to 2011, there were over 551 facilities built in 131 regency/municipal in 30 provinces in Indonesia. Sanimas facility construction served as main component in the success of achieving the RPJMN 2010-2014 sanitation target, which is to provide access to communal-scale wastewater treatment for 5% of the population by 2014. The success is attributive to the AMPL forum that had been established since 1997.

2. Community-based Total Sanitation (*Sanitasi Total Berbasis Masyarakat* – STBM) with its five pillars: i) stop open defecation; ii) hand washing with soaps; iii) household water treatment; iv) solid waste treatment; and v) wastewater treatment.

STBM was firstly introduced in 2004 and piloted for 2 years, and replicated since 2006 before the Ministry of Health launched it as a national program in 2008. Up to 2010, STBM had managed to liberate around 2000 village and around 4 million people from open defecation. Key success factor of STBM compared to previous approach was the government subsidy for toilet provision and its focus to instill behaviour changes. Although not stipulated formally, but most Sanimas program were done in urban areas, whilst STBM coverage are more flexible in term of selecting target locations.



**Figure 7. 4 Sanimas Achievement in Tegal Regency**

Source : Ministry of Public Works, 2014

## Box 7. 2 Drinking Water and Environment Sanitary Forum (AMPL Forum)

Drinking water and Environmental Sanitary (AMPL) Forum is an adhoc forum created in 1997 as media for communication and coordination in the areas of drinking water and environmental sanitation development, encompassing planning, implementation, monitoring and evaluation stages. This forum has working groups that encourage cooperation between governmental institutions responsible for drinking water and sanitation development. AMPL working group at the National level consists of eight ministries which are: Bappenas, the ministry of Public Works, the ministry of Home Affairs, the ministry of Health, the ministry of environment, the ministry of finance, the ministry of education and culture, and central Bureau of Statistics. This is based on the decision of Bappenas Deputy on Infrastructure as the head of directives on drinking water and sanitation development. No. 38/D.VI/07/2013 on the formation of working group on drinking water and environmental sanitation development.

The goal of AMPL working group is to: 1) prepare policy framework, 2) compose strategies and programs on drinking water and sanitation development, 3) coordinate and monitor implementation of drinking water development, and; 4) disseminate information on AMPL. Working group of AMPL also has a role as a motivator for advocating and synergizing AMPL development in Indonesia. The work performed by the working group has strengthened coordination and synergy among actors in the sector of AMPL in Indonesia and positively support the achievement of MDGs target and RPJMN 2010-2014. Some programs supported by the working group is Acceleration of Sanitation development in settlement areas (*Percepatan Pembangunan Sanitasi Permukiman /PPSP*), community based total Sanitation (*Sanitasi Total Berbasis Masyarakat /STBM*), community based drinking water and sanitation (*Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat /PAMSIMAS*), community based sanitation (*Sanitasi Berbasis Masyarakat /SANIMAS*), Drinking water Safety Plan (*Rencana Pengamanan Air Minum /RPAM*), Sanitation Information System (NAWASIS) and sanitation at school (*Sanitasi Sekolah*). AMPL forum is championed by friends of AMPL who are involved in AMPL networking – [www.jejaring-ampl.org](http://www.jejaring-ampl.org) –, which has a role to synergize and coordinate potential stakeholders. Currently AMPL network, which was formed in 2007, has 66 individual and group members.

The drainage system in Indonesia are often problematic since: a) most of its cities are developed incrementally instead of through long-term planning, thus it is difficult to design an integrated drainage system in the existing situation; b) drainage system planning is still based on condition during normal climate, whilst extreme rain due to climate anomaly has often occurred. Twenty years ago, the highest rainfall intensity in Jakarta is only 100 mm/day, however now it has reached to 350 mm/day; and c) water run off had increased due to land use conversion.

Improving drainage system has been done through integration with other program and implemented in every city. The minimum requirement of 30% of green areas in city is one of the ways to integrate this target with other program. Green City Development Program (*Program Pengembangan Kota Hijau - P2KH*) had been promoted by the government since 2012 as means to accelerate fulfillment of the 30% requirement, and had been initiated in over 100 cities over Indonesia. P2KH is a collaborative program between regent/municipal government, private sector and community that is facilitated by government. Every regency or municipal is committed to implement L2KH and prepare a green city action plan that is synergized and participated. Other than 30% green areas, manmade lake is also one of the ways of integrating the target to improve drainage capacity with other program.

## 7.5 Improving Access to Clean Domestic Energy

Up to 2003, Indonesia is still one of oil-exporting country. However the then abundant resources had continued to deplete, which made 2003 as the turning point year of Indonesia becoming an oil-importing country. Despite this change, oil-heavy consumption pattern and culture is maintained that



every government policy to adapt repeatedly faced resistences and are challenged. Nevertheless, Indonesia maintains its stance to adjust its energy policy to be more sustainable.

Indonesia Energy Outlook 2013 below portray the use of energy consumption in Indonesia:

1. Total final energy consumption (including traditional biomass use in household) had risen from 764 million Barrel Oil Equivalent (*Setara Barel Minyak – SBM*) in 2000 to 1.004 million SBM in 2011, which is around 2,87% rise per year. The total final energy consumption calculation does not include other petroleum products in the industrial sector.
2. Total final energy consumption in 2000 comprise of household sector (38,8%), industry (36,5%), transportation (18,2%), others (3,8%), and commercial (2,7%). This composition shifted in 2011 into industry (37,2%), households (30,7%), transportation (26,6%), commercial (3,2%), and others (2,4%).
3. Throughout 2000 – 2011, transportation sector experienced the fastest annual growth with 6.47%, followed by the commercial sector (4.32%), and the industry sector (3.05%). Align with the steady growth of population, the household sector also increased although slightly (0,7%). Other sectors had declined with 1.47%.
4. The high total final of energy consumption in the transportation sector is due to the exponential growth of motored vehicle sales (around 15%). The fact that energy consumption in the transportation sector invites attention, not only within the country but also internationally, as most of its use is using government-subsidized fuel. Whilst the rise of consumption in the commercial sector is attributed to the growth of hotel, mall and buildings.
5. The relatively low growth of energy consumption in household sectors is due to wider use of commercial energy (replacing biomass) and substitution of kerosene with liquid petroleum gas (LPG) for cooking.
6. The use commercial energy and LPG will decrease energy consumption, as these energy sources are more efficient.

Energy is the capital asset for development and national economic growth. A steady supply serves as the absolute requirement for the stability of development. Indonesia still faces issues in achieving targets in the energy sector. In 2012, the global energy supply is still dominated by fossil fuel (oil, coal and gas) of 81.3%, nuclear power 9.7% and only 9% of renewable energy (water, windpower, biomass and kerosene). This dependence on fossil fuel, particularly oil, in meeting the country's consumption demand is high with 96% (oil 48%, gas 18% and coal 30%) out of the total consumption. Efforts to maximize use of renewable energy yet to achieve the desired target. This dependency also makes the country more vulnerable economically when there is an unsteady supply of oil or rising oil price, in addition to the obvious detrimental impact of high fuel energy use toward the environment.

**Table 7. 2 Energy Source for Household Needs**

Indicator	unit	Status Quo (2009)	Target (2014)	Progress of Achievement		
				2010	2011	2012
Oil production	In thousand barrel/day	949	1.010*	945	902	877
Power plant capacity	additional (MV)	31.959	3.000 MV/Tahun	2.024	5.916	2.940
	Installed (cumulative MV)			33.983	39.899	42.839
Electrification ratio	%	65.79	80	67.15	72.95	75.90
Geothermal Capacity	Installed (cumulative MV)	1.179	5.000	1.189	1.226	1.231
Gas network	city/ connection to households  (cumulative)	2/6.210	19/ 80.000	6/19.376	9/45.576	14/61.576
Gas Refueling Station Units	Unit (Kumulatif)	Na **	21	FEED*** *	4	8
Note: * 1,01 million is the target of the Ministry of Energy and Mineral Resource' (Ministry ESDM) target, whilst the president target was 1.2 million ** not yet available from state budget funding *** <i>Front End Engineering Design</i>						

Source: Ministry of Energy and Mineral Resources, GOI 2012

Securing energy supply for development was a major consideration in formulating the 1976 policy framework on energy. Maximum utilization of energy resources was included as another policy consideration in the 1981 General Policy on Energy (*Kebijakan Umum Bidang Energi*- KUBE). However, only in 1991 the issue of limited energy was accommodated into the policy and was responded with diversification, intensification, and conservation, pricing policy and larger attention to environmental aspects in energy production. The national energy policy was then formulated in 2003 and served as reference in formulating Law. No 30 Year 2007 on Energy, which underline the effort to not only secure energy supply, but also guidance for using energy sources. Since being implemented, the national energy policy had quite significant result; amongst others are increased power plant capacity of average 3000 MW/year and achieved target of electrification ratio of 80% by 2014. In regard to diversification, conversion from oil fuel to gas fuel is undertaken by constructing city-scale gas network, with the target of having this in 21 city and 76.280 household connections by 2014. Number of Gas Refueling Station (*Stasiun Pengisian Bahan Bakar Gas – SPBG*) is also targeted to increase progressively to support the transportation sector and was accommodated in the Presidential Regulation No.64 Year 2012 on Supply, Distribution and Pricing Policy for Gas Fuel. This policy direction is paramount considering that oil fuel supply of the country continues to deplete (in 2014, oil fuel production only achieved 86.83% of the target), and geothermal use is not yet maximized (only 1.231 MW of energy production against the targeted 5.000 MW in the national mid plan in 2014).

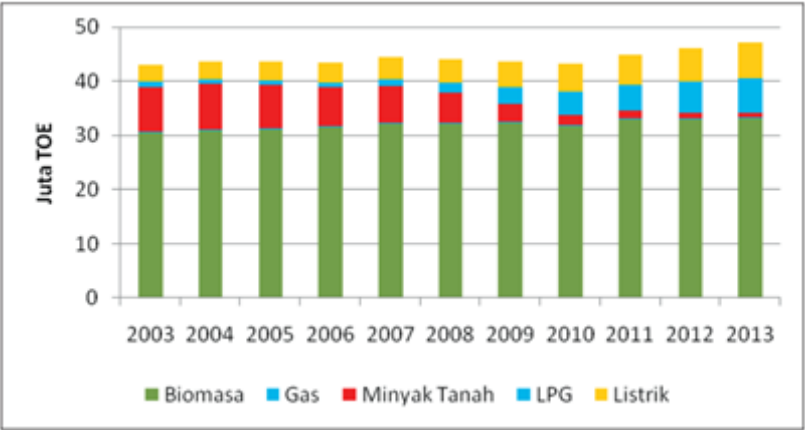
Generally, the country's effort for diversification and intensification is quite successful with rising use of coal and gas. However some challenges remained, amongst others are the difficulty to shift

the national paradigm to: i) reduce, and even halt, export on fossil fuel; ii) how to provide affordable energy to the people and incrementally reduce fuel subsidy; iii) optimizing use of renewable energy; iv) optimize infrastrucure support; and v) decentralizing the preparation of plan for national gas reserve. To address the above challenges, a Government Regulation No.79 Year 2014 on National Energy Policy was enacted.

Among other developing countries, electrification ratio in Indonesia is considered low (0.85 TOE), in which only 72.95% of households managed to gain access to electricity in 2011. Per capita energy consumption is also considered low particularly since energy infrastructure development remains minimal especially in remote areas and outer islands. Not only influenced by national interests, Indonesian energy policies are also affected by global environmental issues, which is reflected in Indonesia’s target to reduce emission, 26% with self-help measures, and 41% with external supports by 2020.

The improved urban and rural economy had affected household energy consumption and also features the trend of decreasing kerosene use from being substituted with gas, LPG or electricity. In the period of 2003-2013, total energy needs (including biomass) in household sectors had increased from 42.96 million Toe to 47.11 Toe. From that statistic, biomass use reached 71% in 2003 and remain in that number until 2013. The shift from kerosene to LPG is due to the widely socialized energy substitution program, in which kerosene use decrease by 19.3%/year, whilst LPG increase by 20.7% per year. In regard to electricity use, there is an average grow of 8% per year, from 7.1% in 2003 o 13.9% in 2013. Whilst for gas, percentage of use amongst households is still considerably small (0.03% - 0.04%), despite its steady grow of usage.

Kerosene, gas and LPG are mostly used for cooking, whilst electricity is for lighting. For remote rural areas, kerosene is still widely used for both. Below is the energy consumption chart in household sector from 2003 to 2013.



**Figure 7. 5 Chart on Household Sector Energy Consumption based on Type**  
Source: Outlook Energy Indonesia, 2014

The high energy consumption in urban households produces high amount of waste heat, with urban settlements producing 20% of the city’s carbon emission. This indicates that settlements constitute a large portion of the total energy consumption.



**Figure 7. 6 Green Building Design and Solar Cell as energy efficiency and diversification initiatives**

Source: Bappeko Kota Surabaya, 2013

To promote energy efficiency, government currently initiates a series of research for innovation in science and technology of energy, amongst others, development of upgraded brown coal, Coal Liquefaction, environmental-friendly technology, etc. Energy efficiency has also been initiated in various economic sectors. Promotion of green design is one of the easiest transformation efforts to reduce emission and has been popular among government agencies and within the society. At the household level, energy conversion from fossil fuel to natural gas is implemented as part of energy conservation and intensification policies. At the city level, converting solid waste into energy or known as waste to energy, is required to be done as stipulated in Law Number 8/2009 on waste management, and should be seen as an integrated effort to support renewable energy production. Indonesia is also challenged to develop solar panel and wind energy, being a tropical country with its geographical advantage. The use of LED lights for street lighting and household is also continuously encouraged. In conclusion, energy efficiency effort in Indonesia continued to be improved and integrated with various sectors.

## **7.6 Improving Access to Sustainable Means of Transportation**

The issue with transportation service in Indonesia is that it is yet to be sustainable and inclusive. Air pollution, dire traffic congestion and high consumption of oil fuel (48%) are amongst the negative impacts. As an archipelagic country, Indonesia has a major challenge in connecting amongst its 17,300 islands. Unfortunately, past development tends to be land-oriented thus interconnectivity amongst islands is relatively low. There is also yet viable mass land transportation, which consequently lead to chronic dependence to private motored vehicles. This condition is certainly not equipped to accommodate the people's high mobility. Efforts to address this issue through an integrated and synchronized transportation policy, national and sub-national level, continued to be pursued.

Indonesia has a national transportation strategy, which consists of four main policies: (1) develop national connectivity; (2) develop efficient and competitive transportation industry; (3) internalize and integrate strategic inter-sector issues; (4) execute modern, efficient and equitable urban transportation. The strategy is implemented through: (1) auditing and transportation development especially in Java; (2) redevelopment of modern, progressive public transportation system which oriented itself toward

BRT or MRT; (3) capacity building urban road network; (4) implementation of modern, integrated urban transportation; (5) strengthening the integration of urban transportation institutions.

Despite the fact that these policies attempt to accommodate equitable transportation development across the country, concentration of population in Java and Bali islands has enforced the practice imbalance investment in transportation provision. These islands require efficient transportation system that supports their urban mobility. Aside from road transportation, railway transportation should be revived to ensure that efficient and effective transportation could be achieved in Java Island. Construction of double track railway and High Speed train are targeted to finish by 2015. Metropolitan cities such as DKI Jakarta and Surabaya had also initiated mass high-speed transportation, namely monorail or MRT that had kickstarted its construction process in 2014.

### **Box 7. 3 Sustainable Transportation Initiative in Surabaya**

Transportation is the third largest CO<sub>2</sub> emission-producing sector, of which almost half of it is generated by private automobile (45%). It is very high in comparison to emission produced by rail transportation (2%). In Surabaya, there are 100.000 new motorbikes and 10.000 new automobiles annually. Consequently, traffic jam is inevitable. To address this, Surabaya city is committed to develop sustainable transportation by opting for environmentally friendly mass transportation that are integrated with other transportation modes. Construction of urban space dedicated to accommodate non-motorized vehicle such as pedestrian ways or bicycle paths is also encouraged, as a form of commitment toward equitable development as well as to reduce fossil fuel consumption.

Initiation of high speed mass transportation system in Surabaya will begin with construction in the North and South corridor of  $\pm 17.14$  km for tram and East – West corridor for monorail with a length of  $\pm 25$  km. Monorail and tram stations will be integrated with supportive facilities such as park and ride, trade and service centers and feeder transportation. These modes will be prioritized in using available road lanes so that effective and efficient mobility can be attainable.



**Figure 7. 7 Illustration of Surabaya Mass Rapid Transportation Development Plan (Monorail and Tram)**

Sumber: Bappeko Surabaya, 2013

For the last couple of years, more people opt for utilizing motorbike as alternative mode of transportation. Data from Directorate General of land Transportation shows an increased number of motorbike productions in 2012. In comparison to 1997 when the motorbike production reach 118.000 annually, in 2012, about 256.000 units are produced annually. For low-income groups, motorbike represents ability for freedom of movement and improved quality of life. Based on motorbike

ownership data, in 2011, about 65.7 million motorbikes ride the roads of Indonesia. This is similar to a ratio that for every four people there is one motorbike available. Unfortunately, this growth is not accompanied with safe riding campaign, marked with increased traffic accidents that are mostly induced by motorbike drivers' ignorance to traffic signs. However, the main issue with this trend is that how to encourage larger use of a more sustainable transportation compared to the popular use of motorbikes.



**Figure 7. 8 Pedestrian & Jalur Sepeda terintegrasi pada Lalulintas Kota Surabaya**  
Sumber: Bappeko Surabaya, 2013

The challenge in Indonesia's transportation development is gaining support from all stakeholders to create an integrative and sustainable transportation system. The much-needed paradigm change from land-oriented transportation to interisland connection needs to be foster regional connectivity. In addition, an international-rated ocean-based transportation infrastructure will benefit Indonesia to take its place in the global seaborne trade. Having such infrastructure could be Indonesia's comparative advantage.

Another much-needed paradigm change is to support human mobility, not automobile mobility, particularly in large cities where mass transportation is a crucial requirement. This change might consequently affect the automotive industries, thus further scrutiny for a win-win solution continued to be pursued.

## **7.7 Smart and Sustainable City**

Just recently, Indonesia launched a Smart City index initiative, which is a collaboration between several media institutions, universities and state-owned enterprises. The developed parameter includes the municipal government's capacity to manage its limited natural resources smartly to attain a livable and sustainable city. The smart city model also considers how digital technology is being used to improve service delivery, reduce cost and promote smart consumption, and to allow active and effective interaction with the community. Compared to the Giffinger and Cohen's smart city indicators, the Indonesia's smart city concept comprises of three dimensions: economically smart, socially smart and environmentally smart.

Economically smart means the city is supported with solid economy practice that maximize existing resources or city potentials – indicators include technology and information service, good governance service and a contributive role of its human resources. Socially smart means the city's ability to provide security, accessibility and convenience for community to interact socially, with each other and also with the municipal government. Environmentally smart means an adequate, healthy, energy-efficient human settlement is in place, and also supported with good ICT service, management and participative role of the people.



These three dimensions are of course channeled through ICT as the managing media and the main tool for service efficiency. This Indonesia-owned concept not only serves as the determining smart city indicators in the country, but is also the reference in developing a sustainable city.

The Indonesia's National Planning Development Agency had developed a national vision for future cities on Indonesia to be achieved by 2045. Many of the smart city elements are included in this vision. Although just recently launched, many municipal government had already employed this concept. Creating a smart city is not mere provision of free internet or ICT-based learning, but it also includes energy efficiency effort and educating people to be smart. The concept of smart people itself is the key, as it can be the main tool in improving the city's welfare and sustainable environment.

Therefore, municipal governments are encouraged to do innovation to improve quality of service delivery, using ICT. The smart city concept is designed to improve people's quality of life through a comprehensive and holistic effort. A strong governance and creative, open minded human resources are the main capital for developing a smart city. It is then clear that Indonesia's concept of smart city is not viewing it as a goal, but as a tool for urban community to reside without compromising the environment quality.

#### **Box 7. 4 Surabaya's Journey to become a smart City**

Surabaya city is one of the cities in Indonesia that employs the smart concept and snatched the Smart City Award 2011. Based on a research, the city's success was owing to a series of process that is done consistently and holistically:

- Improving its internal government management system, through the dominant use of ICT as a tool to have a better good governance;
- Fostering social capital, increasing community's trust and preparing community in using ICT and upgrading the city's environmental condition. This was done through cadreism, community facilitators, championed kampung, building *Broadband Learning Center* (BLC) to prepare a technology-savvy society.
- Developing the government's external service and focusing on ICT-based public service (*Digischool*, free internet, use of social media for socializing information)
- Establishing high-tech city's service delivery, through development of *Surabaya Early Warning System* (SEWS), *Surabaya Single Window* (SWS), smart transportation system (ITS-ATCS), information kiosks, waste-to-energy, etc

Surabaya's efforts had also ticked the entire checklist in Griffinger's smart city indicators. Smart economy is apparent through empowering the creative economy sector and small medium business, which will give direct multiplier effect for the community. Smart people, by having a human-oriented development (30% budget share for education, vocational and BLC). Smart government, with implementation of e-procurement and ICT based service since 2009. Smart mobility, from having a clean and plan to have an ICT based transportation, such as tram and Light Rapid Transit (LRT). Smart environment, with its green city and green kampung measures, contributing to a more environmental-friendly Surabaya. Smart living, with higher living quality in formal settlements or kampung due to intensive promotion of green building awareness award, and green and clean living.

Of course in the implementation, each municipality is free to adjust the concept to fit into its desired vision. Surabaya for instance, has a vision to be a smart, humane, dignified and ecological-friendly city. This vision indicates its emphasis on people development and how to make their people to be able to perform globally and in facing the demand, challenge and opportunity that present in the future. Investing in people's development will also address the challenge that might arise out of social diversity.



## **CHAPTER 8 THE FUTURE CHALLENGES OF SUSTAINABLE URBANIZATION IN INDONESIA**

### **8.1 Introduction**

Indonesia's urban challenges are understandably multi facets, multiscalar and multilayers. It is multifacet, as the urbanization represent transformation of Indonesian society toward urbanized residents, in various stages of urbanizations. There are areas that just began its urbanization level, filled with small and medium cities. Other areas/islands have reached a level of urbanization up to 60% that dominates by one large scale urban areas/metropolitan cities. It is multiscalar, as the transformation towards urbanized area happens at the local scale, as well as the national scale that changes the structure of urban areas. It is multilayers, that the transformation itself takes place simultanenously between social economic as well as administrative political dimensions.

What have been summarized in the previous sections of this report are the ongoing transformations after the 1998 economic crisis when the country experienced a dramatic political shift toward a more open and democratic society. What has been achieved in the past fifteen years is captured in the previous chapter; major challenges are still have to be faced and innovations are still being madecarried out and progressing. In this section and the next one – on the future urban agenda – this report focuses on lessons learned from the past experiences, what should be improved and strategically relevant to the long-term goals of Indonesia's future as a nation.

Urban challenges and future agenda are viewed as cross-cutting areas of the previous six themes, i.e., demography, land and planning, environment and urbanization, governance and legislation, urban economy, housing and basic services. However, given the overall foci of the new urban agenda – toward sustainable urbanization – current and future challenges are framed from two perspectives and should be read coherently: (i) the broader, cross-cutting issues beyond the six topical areas that shape the dynamic of Indonesia's urbanization and urban growth; (ii) the contemporary direct policies and other directives by institutional stakeholders and urban communities as a response to the immediate problems in particular topical areas, as well as in the anticipation of the future Indonesia viewed from the broader perspective. There is no magic crystal to foresee the future, but there are visions, belief, and virtues as the foundation of Indonesian people to assert hopes to achieve the common good for the nation in the future.

### **8.2 The Multifacets, Multiscalar and Multilayers of Indonesia's Urban Challenges**

The fundamental challenge for the future of Indonesia lies on the given geographical and historical conditions as the fourth most populous country and the largest archipelagic nation in the world stretches along the equator with an equal length of USA and Western Europe. Demographic and environmental factors creates a wide variety of urban development in the country. Mixed development of modern economy in the industrialized islands, like Java, Bali and Sumatera co-exists with the traditional, agro- or nature-based economy in Kalimantan, Sulawesi, and Papua – to name the four largest islands in the country. Hundreds of small-islands vary: the highly urbanized one like Batam or Ambon and the traditional small-city islands like Ternate or Biak.

The multifacets of Indonesian urbanization features starkly in the more industrialized islands. The number of metropolitan cities are located in the most industrialized islands, than there are traditional/nature based economy. There are more small cities located in traditional, agro or nature based economy. Metropolitan cities features more advanced economy, with higher education level of its

residents, as well as level of urbanization that requires solutions towards innovation in metropolitan management. While small cities requires management towards functioning the urban services including as marketing points to its surrounding.

The multiscalar dimension of urbanization in Indonesia lies in the scoping of urbanization. At the sub national level, each island has a level of urbanization that differ. Java, Bali and Sumatera has reached to a level that is close to 50% of urbanization level. There are more metropolitan cities located in these areas. Small cities serves as a hub for rural commercial hubs. While medium cities becomes a part of interconnected system with large and metropolitan cities. In other islands, the roles of small and medium cities are significant to accelerate growth and economic development, as well as increasing access to public services. The roles carried out by metropolitan cities will have to be carried out by medium and small cities as a web of urban systems. At the local level, there are areas deemed urbanized, and yet there are little or no urban management assigned to these areas. Thus, it is involuntary responsibility of upper tier government level to deal with such situation. In Indonesia, there are a lot of urbanized people living in areas not yet designed as urbanized. The so called small cities are often not managed as an urban areas.

The multilayer dimensions of urbanization in Indonesia shows in the situation as the more urbanized the provinces or islands do not gurantee that disparity between the high income and low income reduce, nor the gini ratio of cities decreases. The bigger the city often means there area issues of low income housing as well as sanitation issues, similar to that in smaller cities. Issues of relocation of low income groups is detectable, in larger cities than that in smaller cities. Issues of social integration between ethnic groups is as rampant in smaller cities such as Singkawang or Bagan Siapi Api, with the majority of ethnic Chinese, as in metropolitan cities such as Jakarta with eastern island groups living among trading activities in Central Jakarta. Issues of religious tolerance continue to be sensitive in cities such as Bogor, with dismissal of church construction in areas of moslem majority, religious violence in Poso (1995-2002) and Ambon (1995-2000). Access of urban poor to primary education, preventive health and family planning, as well as to essential urban services such as mass transportation, food, affordable housing as well identity cards is a challenge. As their capacity to access these are limited by income, their access are often provided as informal arrangement and its quality can be substandard.

At the national level, Indonesia's urban development is tracked on how to achieve a balanced, integrated semi-urban, rural towns that increasingly becoming urbanized, while at the same time serving the growing demand of major cities like Jakarta and other metropolitan areas across the major islands. In the future, being urban means to face a challenge on how to apply the principles of the tolerance, discipline and order in urban development so that it could beget a new common understanding of what is proposed in the new agenda as "sustainable urbanization" in Indonesia.

This challenge asks for a wide spectrum of guidance in urban development. On one hand, to provide collective public services to rural settlements that densify, that needs support from the urban centers as their market centres, i.e., providing services for inputs to the agricultural activities and agro- and marine-production processing as well as promoting the products to a regional or global market. On the other hand, urban centers in the current consumption trends can only be maintained by more inputs from a wider ecological footprint. There is no other principle than a balanced and integrated urban development approach for the continuity and harmony of rural-urban linkages, i.e., by taking into account inter-regional cooperation that put priorities and strategic objectives to achieve a balanced goal for the welfare of the community and the protection the environment.

There is no simple way to describe “urban Indonesia” in a single phrase. What seems to be an unnoticeable small city now could be one that has a strategic importance for the nation in the coming decades; or what is remarkably advanced city today might be the most problematic and environmentally calamitous in the future. In the complex world of the 21<sup>st</sup> century it is risky to be too obstinate in generalizing urban phenomena as a single concept and categorizing them into boxes of themes, especially in this particular multi-ethnic, multi-culture and geographically diverse country of Indonesia.

However, as a way to closely follow the format of UN Habitat National Report, this chapter is written to put together all challenges in the thematic report of the previous chapters. This is an effort to present a more coherent view that urban challenges of a particular topic are not independently singled out but linked to and part of the overall dynamic of the nation that has been struggling to reform itself into a more democratic and equitable society. This could bring a equitable argument about the dynamic and complexity of Indonesia’s urbanization in order to create sustainable urban life.

This chapter is divided into six themes representing cross-cutting challenges and lesson learned drawn from the previous six themes presenting the achievement and experience of Indonesia during the years of Habitat II. They are 1) Urban demography, social cohesion and equity; 2) Urban framework; 3) Spatial development; 4) Urban ecology and climate change; 5) Urban Infrastructures, housing and basic services, and 6) Urban economy.

Slightly different from the original template of the national report, the section on urban economy is placed at the end of the chapter. It is presented following the argument that all challenges outlined the previous sections at the end should be addressed with a thinking of how the economy should not only be another challenge but also part of the solution, i.e., how to mobilize and allocate economic and financial resources to meet the challenge. Similarly, all potential solutions to answer the challenges should also be framed in appropriate rules and legislation, system of governance and financing to make them work toward achieving the sustainable urbanization goals.

### **8.3 The Future Challenges on Urban Demography, Social Cohesion and Equity**

The main demographic challenge of Indonesia’s urbanization is its annual 3 million people going urban, coupled with the 30 per cent difference of urban-rural population growth.<sup>23</sup> If we take this figure into a picture, every year Indonesia has to build one city of the size of Surabaya, which is the second largest metropolitan after the capital city Jakarta, to accommodate the annual increase of urbanization. If this could not be made then it is imaginable that those three millions new urbanites will be densely dwelled within the existing cities. Major cities will be packed with new inhabitants mainly with rural background, not fully prepared to enter the urban economy and urban life style. Many arrives to expect better job opportunities than in their rural counterpart. Urbanization has been said as the engine of growth in many countries. When the engine needs to work as one system supported by well-functioning components. The challenge is how to incorporate the stream of urbanization as new assets rather than as a new burden to the existing system.

The proportion of the working age population in Indonesia is projected to increase and create opportunities or more commonly referred to as the demographic dividend. The ending years of Habitat II in 2000 had been marked as the window of opportunity in the demographic transition for Indonesia. A ‘ demographic dividend’ is noted to take place on 2025, with one productive person will only support

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<sup>23</sup>Bappenas 2013, *Proyeksi Penduduk Indonesia 2010-2035*. The National Development Planning Agency. Indonesia population projection 2010-2035.

2,2 persons. Efforts to prepare the era of population dividends, which is between 2020-2030 are needed in order to prepare human resources with knowledge and skills; maintain the fertility decline; prepare the workforce competitive competence and shrewd economic policies in creating jobs, flexible labour market, increased public savings, adequate infrastructure allowing more equitable opportunity to all urban inhabitants to flourish together. Health issues are another point to emphasize. Indonesia joins the rank of 10<sup>th</sup> most obese country in the world (Jacobs, 2014) (McLuckie, 2014) and lacks educational program on national physical education curriculum. As Indonesians consume fat and low nutrition foods, it is against the scenario of gaining benefits from the dividends. It is a challenge for such a well-planned development scenario to surf on this irreversible demographic trend with wide-range strategies and policies.

Growth and changes in the demographic structure in Indonesia is also varied, national goals and policies are adopted and adjusted to the local conditions by acknowledging cultural difference while maintaining social cohesion and inclusiveness. Since economic growth does not always followed by social equity. Measured as Gini Index, the most urbanized provinces in Indonesia such as DKI Jakarta, West Java, record a high change in Gini index, closer to the national average. The most urbanized provinces that are located far away from Jakarta record lower than average of Gini index.

Looking at the informal sector in urban areas, relatively slow expansion of the formal sectors compared to the million numbers of new job seekers every year in cities, the widening disparity among formal/informal income groups opens the risk of social conflicts and increased criminality among dissatisfied social groups. The so called informal organized crime (preman) exist to extort money from informal traders, become the reality of urban life for low income job seekers. Without recognizing the informal sector works, and the security and safety provided by informal organization, the government may not replace their needs to secure the place for trades. Recognizing the informal sector could be the first step towards actively improving their livelihoods.

Social cohesion in urban areas may be seen as secure for urban people. However, cohesion among groups, either ethnic, religious, race or interest groups (or SARA) remain fragile. In early 2000, ethnic and religious conflicts in cities such as Ambon and Poso, have created divisive positions among Indonesians. Later on, civilian clashes are fueled by religious intolerance such as banning of church construction in the predominantly muslim communities, such as in Bogor (2008) or banning of mosque construction in predominantly Christian communities in Papua (2015). In urban areas, more often such clashes represent the advanced economic conditions of migrants in comparison to that of local communities. In the case of East Aceh regency, where Rohingya refugees seek shelters, aids from national government and NGOs creates jealousy with the local communities. Potential conflicts slowly seep in the communities.

The government of urban communities must realize that they act alone. Nor do they realize that policies on social cohesion have to be set to instill tolerance toward newcomers either from low income or more educated ones. Creating urban communities that are dense and yet understand each other, will need specific social intervention planned early on.

Another challenge is to overturn urban communities to be active politically and not a recluse individual, to change their positions from demanding consumers to pro-active citizens and collaboratively working toward their rights and duties living in urban compounds. This must be answered in a new kind of urban social governance that should be able to ensure the socio-cultural plurality and encourage community solidarity by improving the quality of life in their neighborhoods, prevent violence, and ensure safety for women and children, the elderly and disabled people. The

politically active urban community in the new urban social governance would act as a counter balance to prevent the social exclusion resulted by the failed market mechanisms.

#### 8.4 The Future Challenge on Urban Framework

Just as other developing countries such as India, Indonesia has a high level of urbanization level, based on population census of 2010. It is about 118..320.256 persons or 49,80% of population lives in urban areas. Yet, Indonesia only has 98 municipalities or consolidated urban areas, whose governments are responsible for providing urban services. These municipalities are resided by 55 million population or about 22% of the population. In other word, about 62 million urban population live in Indonesia are not governed by municipalities or consolidated urban areas. This potentially denies them legal status of urban resident thus deny access to urban services.

Some of these urban population lives in large scale housing complex (more than 500 ha of land). In Bodetabek areas, especially in regencies of Tangerang, Bogor and Bekasi, there are about 281,56 km<sup>2</sup> areas are used for large housing complex, managed by private sectors. When managed by the private sector, the areas are developed to fulfill the needs of residents especially as consumers. Their preference for large lot, single houses with wide leafy roads, accessed only often by cars. Some of these housing complex even do not have pedestrian path to deter people from walking on the side of the road. Instead walking is aimed to designated parks. Such housing complex also often becomes gated communities, denying access of local, non dwellers of housing complex access road. Vacuum government policies to help private sectors manage these kind of housing complex, leads to cities that are pristine, middle upper class oriented, and less climate friendly. Often such complex do not have mass transit that makes the cities are prone to air pollution.

Several of these housing complexes are located next to each other and located close to the metropolitan cities. Yet, their transportation system are connected only through highway or rail system. Their road system do not create integrated system, that efficiently connect the residents to the city core / metropolitan cities. This is only one of the detached entities created by new towns. Other elements such as solid waste management, electricity generators, clean water provision are also disconnected to the regional condition of their complex. While it may benefits their residential areas, it may potentially jeopardize the conditions of its surrounding.

Without recognizing the interconnectedness of urban structures, that will benefit for long term efficiency and effectiveness, these housing complexes become a source of urban sprawl that eat up land potentially used for other purposes such as food production, and environmental services. On the other hand, many cities in Indonesia will become metropolitan, or with more than one million population. In this case, these cities will have to be managed as efficiently as possible. Since these cities, will have developers help providing housing in their fringe areas. The seeds of urban sprawl may be created early on. Learning from the lessons in metropolitan areas in Java island, encouragement for vertical development, as well as the needs for creating urban mobility that is efficient and public can be achieved soon.

Furthermore, for metropolitan cities that functions have gone beyond administrative boundaries, encouragement towards cooperation between administrative boundaries have to continue to be encouraged. This is so that urban residents will gain benefits from being in urban areas, even without much consolidated.

## **8.5 The Future Challenge on Spatial Development**

Given the huge potential of natural resources and biological diversity as national assets for development, it is a big challenge for Indonesia's future urban development to strengthen its policies on the utilization of natural resources in a sustainable manner, simultaneously to restore environmental damages that has been made, yet without compromising the balanced needs of economic growth and social welfare. The ecological concern of urban development must also addresses the challenges of the worsening environmental conditions and the increasing vulnerabilities to disasters, whether natural or manmade. The breadth and diversity of the country face the challenge to achieve an equitable and balanced spatial development across the West-East regions. Land use planning for labor-intensive and high value agro-/marine industry development such as in city islands and coastal towns has to be balanced with smart growth strategy in highly urbanized big cities and metropolitan centers.

Urbanization is understood as both a noun and a verb to underline the core meaning as a societal progress toward a better standard of living (or "being urban"). The challenge lies in all efforts to improve the capacity of the people as human resources, social and human capital to wisely use the remaining richness of Indonesia's ecological diversity through the mastery of the cutting edge of science and green technology so that the creation of public wealth does not solely rely on natural resource exploitation. Included are the challenges of developing infrastructure networks that supports an efficient and low cost production activities in rural areas and nearby small towns in an attempt to create economic linkages and marketing supports, as well as accessible financial services and trade policies that promote agro- or marine-based value added that provide better livelihood for under-privileged groups especially in the Eastern Regions of Indonesia.

Population density of urban areas in Indonesia has only increase. A few of small cities in Sumatera dan Kalimantan, because of their main sources of economy in mining or plantation, decrease in urban density, the average urban density has reached about 49,2 person per km<sup>2</sup>. Bandung and Cimahi municipalities record the highest urban density with respectively 14.000 and 13.000 persons per km<sup>2</sup>. This creates a challenge to provide urban public space for communal activities for its residents. The mandatory public spaces that should be provided are for green open spaces. (RTH). This does not necessarily mean that urban public space will be a part of the green open spaces or vice versa. With a lack of permanent areas to be public space, roads or unbuilt land are used for temporary public space. Some open parking lots are also used for public space in areas whose public activities are taking place. However, there is no definitive policies on urban public space mandatory for urban areas. For unconsolidated urban areas such needs are urgent to provide communal activities for their residents.

## **8.6 The Future Challenge on Urban Ecology and Climate Change**

Another major challenge for Indonesia is to meet its commitment to voluntarily achieve greenhouse gas emission (GHG) reduction target of 29 percent by the year 2030. This commitment has been outlined in the National Action Plan to reduce greenhouse gases (RAN GRK) through Presidential Decree No. 61/2011 and 33 Regional Action Plans (RAD-GRK) as its derivatives. The national emission reduction plan is followed by the national adaptation action plan that has been completed in 2013. Given that the cities are required to include a more detailed implementation plan in their local spatial development and to execute its implementation in the related environmental aspects comprehensively. Paris COP 21 in 2015 recognize the roles of sub national governments in actively engage GHG reduction. Mayors from various cities in the world pledge that their active contribution to reduce GHG will make a big difference to the national level of respective countries. This opens avenues for cities and urban areas in Indonesia to engage in spatial planning, and management that reduce GHG.

As performance indicators, monitoring system and data provision are prepared at the national level, so is the municipalities

Having described that, this comes to the one of the main ecological challenges of Indonesia's urban ecology and spatial development: land conversion. The expanding urbanization of fringe areas in metropolitan cities as well as the urbanizing rural towns (which by the administrative definition is not considered as a city municipality) has created sprawling phenomena. Official statistics comes to the national figure of 110,000 ha of agricultural land being converted into urban built areas annually. This is not included the forest land which gives higher figure of land conversion from non-urban to urban uses. The latest UNFCCC report (2014) states that Indonesia has the highest rate of forestland conversion, and potentially contributing the adverse impact to the global climate change, as well as the lost of biodiversity and other environmental impacts that follow.

Spatial planning and urban development in Indonesia face the major challenge of the "curse of nature." Indonesia's unique geography creates a typical climate variation and weather pattern of high rainfall in the archipelago. Added by the global impact of sea level rise this has created a high risk of flooding in coastal areas. Land conversion in sloping hills puts the risk of landslides during the heavy rain. Put together with the natural existence of the archipelago as parts of the Asia Pacific "rings of fire" has tremendously placed Indonesia as a country with the highest risk of a combined geo-/hydro-meteorologic disaster. Volcanic eruptions, earthquakes and Tsunami, as well as more routine local storms, landslides and tidal-waves are parts of the nature's given condition that the country could only accept and be prepared with the best disaster risk reduction and resilience planning.

It is a real challenge, that the current national and province official plans for disaster management and emergency planning are not yet fully adopted and implemented by city authorities and urban communities. Then the next challenge is how to develop the appropriate knowledge, skills, and effective organizations to carried out the plan and make it work to save people's life during the time of crisis. Awareness, capacity building and skill development are the main challenge to be faced by all cities. It should be parts of the social urban governance of local community's active roles mentioned before.

For municipal government<sup>25</sup> there are areas that need improvement to meet the future challenges in spatial development. (1) The need for explicit spatial planning standards, guidelines and manuals specifically developed for disaster risk reduction embedded in the process and methods of developing the statutory planning for cities and regions. (2) The provision of well-developed Disaster Mitigation Plans for provinces and municipalities to be integrated to the existing spatial plans as well as with other policies and programs provided by the National/Local Disaster Management Agency. (3) The provision of baseline geospatial information in the appropriate scale and other basic database regarding the potential hazard areas.

A challenge toward creating the future urban development that have green framework, is to upscale beyond awareness raising and campaign activities what has been initiated in the Green Cities Program for 24 cities and 36 districts that has been launched nationally during the Habitat Day in 2011. A concrete implementation of green design and low carbon technologies in urban centers need to be strengthened very soon in the near future. Green or sustainable design should also be meant resiliency against natural or human made hazards. Spatial planning and design in the next twenty years should be

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<sup>25</sup> Bappenas 2014.



more explicit in determining the macro and meso impacts in a broader ecological perspective as well as the micro one of more detailed local action plans.

Beyond piecemeal approaches to green perspectives to urban development, urban biodiversity is another challenges for urban Indonesia. As pieces of lands are owned either privately or by the state for human purposes, there are less concerns of urban biodiversity. Biodiversity in urban areas are to be recognized as sources of pollination of fruit trees, as well as measurement of healthy natural habitat that are affected by limited exposures to pollution. The mandatory provision of green open spaces may be the beginning. To interlace them into the urban green spaces that nurture biodiversity will be a harder avenue to pursue. As green open spaces have to be connected to provide corridor to animal migration, as well as for larger animals to survive. In the end with allowing urban biodiversity to exist, means urban population can live a healthy life.

### **8.7 The Future Challenge on Urban Infrastructures, Housing and Basic Services**

The main challenge in urban planning and urban land management should eventually be able to answer the fundamental Habitat agenda and the goals of the Post-2015, which are: (1) guaranteeing and ensuring that the public can obtain decent and affordable urban basic services including for those who are temporarily living in ‘illegal settlements;’ (2) prevent the social exclusion as a result of market mechanisms which is still so dominant in urban development and in the provision of urban settlements resulted into a very expensive urban space so that poor residents has been displaced to the fringe areas or living in illegally to sub-standard areas prone to natural disasters; (3) manage the social capital of communities, including immigrants who continued to flow from rural to urban areas so that the process of urbanization would result in an increase in the common welfare; (4) prevent social segregation due to the digital divide between those who enjoy a global interaction (economic, social and cultural) and other residents who do not have access to information technology; (5) prepare human resources as major assets for national development to be improved so as to provide high competitiveness, among others, marked by increasing Human Development Index through population control, increasing the level of education, and improving health and community nutrition.

Nation wide, the challenge to improved infrastructures will be focused on efforts to improve national connectivity and making integration of domestic economy for smooth flow of goods and services between urban centers and different regions in Indonesia. The challenge is a classic ‘chicken-and-eggs’ problem, where infrastructure investments will only be considered feasible if there is sufficient subscribers or users to pay, or can be proved to create economic added value of the increase outputs. On the other hand, to increase the economic productivity or financial ability of the subscribers then basic infrastructures should be put in the first place before anything else could work. This very much describes the challenge of the Eastern Regions of Indonesia and other disadvantaged areas including cities in those provinces. It is relatively too expensive, in financial term, to build infrastructures in the low urbanized areas; at the same time, to push development and increase urbanization then infrastructures need to be invested.

Since urban infrastructures by their main definition are public goods then a commercially financed infrastructures would contradict the intention as social services for all urban inhabitants because only those who can pay will get the service. The challenge to determine Public-Private Partnership in infrastructure development is to draw the line where the private commercial interests should be placed next to the goals of providing social goods for everybody. There two kinds of urban infrastructures, both are equally important, that need to be carefully examined in the urban policies

because they streamline urban activities and development outcomes such as urban livability and quality of life.

The first one is ‘economic infrastructure’ -- i.e., part of a capital stock used to facilitate economic or serve as inputs production, such as utilities (power, piped gas, telecommunications, water and sanitation, sewerage and solid waste disposal), public works (housing, roads, irrigation, and drainage), and transport (railways, waterways, seaports, airports and urban transport systems). The second category is ‘social infrastructure’ encompasses services such as health, education and recreation. It has both a direct and indirect impact on the quality of life. Directly, it enhances the level of productivity in economic activities; the indirect benefit of improved health or skills, for example, is also improved productivity. It also enhances the quality of life of the populace by empowering them economically, politically and socially, with the resultant positive effects on improved social welfare and on poverty alleviation.<sup>26</sup> The challenge for Indonesia is how to make those two types infrastructures complement to each other to achieve the ultimate goals of sustainable urbanization.

Economic infrastructures are commonly built within the urban space and parts of the overall spatial structures. Critical to the development is the availability of land to locate the infrastructure network. This exactly what the main challenge is all about: land.

Significant and fundamental challenges ahead to achieve the objectives of sustainable urbanization is on how to institutionalize reform of land laws to better suit the conditions and demands that has changed dramatically since the 1960 on Agrarian Law was issued. Innovations in urban infrastructures and residential development -- such as apartment housing, underground space for commerce and public use, a mixed right in land consolidation, among others -- should be accommodated in the renewal of the land laws, which are not only limited in land administration and management, but also related to spatial development. The challenge on the governance and legislation of traditional and communal land lies on how to create a coherent legal framework to pair with the non-traditional land rights, such as freehold, leasehold or use rights. Innovative and flexible land legislation is a challenge in the provision of land for public infrastructures, housing and other basic services to respond to the expanding urbanization.

Infrastructure planning in spatial development has not yet fully utilized as a strategy to increase accessibility and reduce urban mobility. Indonesian cities are also coming late in the development of mass rapid transportation. There is a consistent positive correlation between high urbanization and high ownership of private vehicles. Public transportation has not yet met the high standard of service quality as a convenience substitute to private vehicles of the daily commuters. This is a challenge of such a late progress where millions of motorbikes and congested private cars have increasingly become a common picture not only in Jakarta and other metropolitan cities but also in many mid-size cities with the growing urbanization.

Worsening air pollution has been quite a challenge in most cities. The conversion of fossil fuel usage to low carbon and renewable energy sources has not been progressing satisfactorily in the past decades. The current government has taken a bold step to eliminate oil subsidies, yet the market mechanism needs time to influence behavior change while a better, greener and less expensive substitutes have not yet been provided. This would be a major challenge for the future of Indonesia’s urban energy consumption for both daily domestic use and city-wide infrastructure and basic services.

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<sup>26</sup>UN Habitat (2011). *Infrastructure for Economic Development and Poverty Reduction in Africa*.

Challenges ahead in the housing and urban basic services that are vital to the improvement of the health of society are: (1) ensure the security food, drinking water, and energy in urban areas to support national security; also maintain the availability of raw water for drinking water, including the use of other sources of raw water such as rainwater and recycled water; (2) ensure the availability of basic infrastructure to meet the minimum service standards in the provision of water and sanitation services through the implementation of proper asset management, especially related to the maintenance and rehabilitation so as to maintain the economics of the aging infrastructure; (3) streamline and synergize the planning and development of the provision drinking water and sanitation to fulfill the standard quantity, quality, continuity and affordability; (4) provide land at strategic locations in urban areas through the active role of the government for the construction of low-income housing with more innovative development schemes, such as rental apartment or self-help housing; (5) conduct public financial management and accounting system allowing more innovative financing schemes for tariff that take into account the need for operation and maintenance of facilities as well as to allow fair pricing for those who are desperately in need.

## **8.8 The Future Challenge on Urban Economy**

Since the beginning of the previous Habitat II there has been a strong awareness about the challenges of the country's direction on urban and regional development policy which is expected to be achieve the national goals for: (i) the development of strategic and fast-growing region; (ii) the development of underdeveloped and disadvantaged areas, border areas, and disaster-prone areas; (iii) integrated urban and rural development, and (iv) the administration and management of land.

With a per capita income reaching \$ 3,500 (in 2013) Indonesia is in the bottom tier of middle-income countries, the biggest challenge for Indonesia's future economic development is how to get out of the 'Middle Income Trap.' In Indonesia's current position, to achieve high-income countries in 2030, the national economy should grow at an average between 6 - 8 percent per year. In order for sustainable economic development, high economic growth must be inclusive while maintaining political stability. Wealth of natural resources is a huge potential in Indonesia's economic development, and the big challenge for Indonesia is to manage natural resources and biological diversity to achieve sustainable development in order to realize the national goals of sustainable development, i.e., economically feasible, socially acceptable, and environmentally sustainable. Efforts to achieve these objectives require careful implementation of the right strategy, as well as to optimize the use of all existing economic potential. The challenge of high, sustainable and inclusive economic growth should be achieved through a comprehensive reform to improve the performance of the economy.

Another major challenge is to eliminate the income gap and improve the standards of living for the bottom 40 percent of the poor to ensure social protection and equal economic opportunity, i.e., to lower Gini index of 0.33 in 2002 which has increased to 0.41 in 2012. The big challenge of urban economy is the socio-spatial inequality within cities and development gap between provinces across regions in Indonesia. Growth/equity dynamics must be managed to achieve equitable and balanced development. This a simple line to say. Yet the realities of the 21st century's global economy and the increasing volatility and uncertainty in the complex world have shown the vulnerability of any nation-states to endure the impacts of such global dynamics beyond the country's ability to control it within their sovereign territory. Indonesia has learned in the 1998 crisis. However, there is no assurance that such a crisis would never happen again the next 20 years.

The 80/20 gap of GDP distribution between Western- and Eastern-Region of Indonesia has long been a major challenge to Indonesia as a diverse, archipelago country. This has created a serious

challenge for a multi-culture, multi-ethnic society: the perception of injustice between these two halves of the country that might threaten the unity of the Republic. During the time of the writing of this report the Indonesian government has actively launched a vigorous policy to reorient its regional development policy by actively putting a national priority to the Eastern Regions, particularly the disadvantaged Province of Papua and other island provinces. Mid-sized and small towns in those regions should take urbanization seriously to play a role as the ‘engine of development.’ A little late, but such specified objectives in urban economy and urban development planning for Eastern Regions has just been launched recently. The next twenty years would be a challenge how to make it works as expected.

To balance a long-term capital intensive infrastructure investment for the new urban centers at the disadvantaged regions *vis-a-vis* the immediate, short-term results for the improvement of basic services would be a big challenge given the current condition of the national economy and the global dynamics. The management of national account and the risk of global financial market have to be framed in the need for urban economic growth and the balanced supply-demand of urban consumption. This is the main challenge to the urban framework for good and prudent governance.

Another big challenge for the future development is to consistently implement sustainable development principles in any urban framework and onto the economic modes of production and consumption. This has been a long standing appeal to all UN member countries, yet only a few small advanced economies that have been able to put this in their urban framework. Indonesia has the ambition to set these goals in the official long-term development vision. Yet, the need to achieve strong economic growth to accommodate the growing unemployment unfortunately has to compromise with the available low cost production technology, which mostly does not meet the ideal future environment standards. The abundance of oil and coal resources of Indonesia is still lowest cost options to provide the growing demand for energy in the urban industrialization. A strong commitment for a radical shift in energy policy from high to low carbon content should be reflected in the urban framework with clear and measurable targets over the next twenty years. This is the challenge for any Indonesian administration in the coming years to build political commitment toward this vision. Simply said, the future challenge of Indonesia’s urban economy is how to transform itself into the ‘green urban economy’, whilst urban productions should be based on the principles of ‘industrial ecology’ rather than relying on the existing environmentally costly old technologies.

Having said that, the future challenge to achieve the national goal of sustainable urbanization would be on developing a framework, i.e., rules and legislation, governance, and municipal financing coherently and consistently applying the green principles across sectors. National, province, and local fiscal policies should reflect these goals. Tax, financial incentives, subsidies, and protection should be directed to support economic actors and agencies that use and implement the green production system. This is a huge challenge, and it is understood that a new model of urban economy, i.e., the green economy, should be placed in the core of urban framework. The provision of urban basic services and housing development in newly urbanized areas could be a good place to start to implement the new green urban framework. National and municipal governments should be persistent to meet the challenge by the existing ‘old guards’ who will try hard to keep the control in the market for preserving the old, business-as-usual economic model which has failed to meet the challenge to create inclusive growth, increase labor-intensive investment especially for small and micro businesses, ensuring social protection for traditional and informal workers, and strengthen the rural economy to develop high value added agro and marine products.

The opening of regional markets (such as ASEAN, APEC, Trans-Pacific Partnership) would be parts of the new global realities in the 21<sup>st</sup> Century. This is certainly an opportunity as well as

challenges that need to be addressed carefully by the Indonesian policy makers. Readiness of Indonesia's urban centers needs to be prepared in all areas as a whole, both at the central and at the local level. The public should be made aware about the opportunities of AEC 2015. Rather than turning back to the narrow and closed localism urban communities should grasp the opportunity by exerting their social and cultural capital, improving competitiveness and quality of young urban workers to reach out to the bigger regional markets. This opens a new challenge for municipal government to be able to manage its own urban affairs intelligibly and consistently toward the envisioned goals. A new legislation of 'urban law' is needed as legal and political framework to devise new urban policies to cope with the increasing challenges to provide food, energy, and other urban amenities.

To that end, economic policy needs to be directed to improve the stability and sustained economic growth with an emphasis on sustainable industrial transformation, so that the Indonesian economy will be based on a higher economic value added. The weakening commodity prices in the international market are estimated to become an important challenge for Indonesia to immediately shift the structure of Indonesian exports toward manufactured products. Meanwhile, the increase in the global supply-chain network also needs to be utilized across the regions through more efficient and well functioning logistical lines between production centers which can open up greater opportunities for local entrepreneurs including small and medium enterprises to participate and become part of the international supply chain.

All and all, the overall challenges facing the future urban Indonesia should be structured in a coherent legal framework – at national, province, and local levels – supported by an intelligent economic policy to provide the 'engine' for development. Governance of the city still have to answer the main challenges to improve the integrity, transparency, accountability, effectiveness, and efficiency in delivering public service. Combating corruption is still a serious and ongoing challenge for Indonesia. This requires improvement of the quality and integrity of law enforcement officers, in addition to the improvement of regulation and legislation. All investment and new economic development would be useless if it only provides a bigger pie for rent seekers. It is not only losing the opportunity to get the best outcomes from the investment but also damaging the economic climate and risking the lost of public trust which in the end should be paid in very high social cost. This is definitely what needs to be face as the main challenge for all urban stakeholders.

Given the big size of the country with such complex variables of diversity in almost all aspects of life – socially, culturally, politically, and ecologically – it is a serious challenge for this country to balance all of those aspects in a proper framework. It is a challenge to find a proper balance: between central and local authorities; between individual and communal rights; between traditions and modernity; between urban and rural life; between land, water, and marine resources; between different ethnic and religious groups; between social groups, political interests, and other. Since there is no 'best way' to refer the unique historical condition of Indonesia, the only way to achieve and maintain the balance is by continuously open the channels for genuine dialogue among different groups. The challenge of the government or any leading authority is to maintain a facilitating role for the dialogue and refrain itself to be biased toward a particular interest. The challenge is how to introduce the ethics of 'cosmopolitanism' – in which individuals from varying background enter relationships of mutual respect despite their differing beliefs – in the future urban governance system.

## CHAPTER 9 INDONESIA'S NEW URBAN AGENDA

### 9.1 Introduction

Indonesia's proposal for the *New Urban Agenda* of Habitat III (2016-2036) is developed in the framework of the long term national development goals (2005-2025) to achieve the vision of Indonesia as an independent, advance, prosperous and equitable country.

The report on the Implementation of the Habitat Agenda in the previous chapters have given valuable experiences and lessons learned. In the past twenty years new new challenges have emerged to be considered by all urban stakeholders and Habitat partners, i.e., government agencies, businesses, civil society organizations, and local urban communities. The government as a 'driver' towards change in urbanization needs to promote sustainable urban development for the future. More specific itemized agenda are listed following the previous six thematic areas. However, overlapping issues are also described in more than a single section accentuating the importance of the challenge in the future.

### 9.2 Urban Agenda as an Integrated Part of the National Sustainable Development Goals<sup>27</sup>

National development goals of the Republic of Indonesia have been clearly stated in the Preamble of the 1945 Constitution, which are to protect the nation and the entire homeland of Indonesia, to promote the general welfare of the people and the nation's intelligence, and to participate in the establishment of a world order based on freedom, lasting peace and social justice. The national development is planned and carried out in stages: the long-term, medium-term, and annually.

Efforts to achieve the national goals are implemented through systematic stages and planned processes, integrated and sustainable. Accordingly, the Law No. 25/2004 on National Development Planning System (SPPN) gives the directive of the phases of the National Long-Term Development Plan (RPJPN) over a period of 20 years, also a five-year medium-term (RPJMN), and a yearly planning in the form of annual Government Work Plan (RKP) as the basis for the preparation of the State Budget. The directives given in RPJPN are very important to maintain the continuity of the 5-year term of the government to the next 5-year period.

The national long-term development visions of the above are stated as follows<sup>28</sup>:

- Independent** : being able to realize an equal position with other nations and to rely on own abilities and strengths.
- Advanced** : achieved prosperous and high quality human resources within a stable political system and well developed institutional and legal framework.
- Equitable** : no restriction or discrimination of any kind, either between individuals, gender, or between regions.
- Prosperous** : the fulfillment of the needs of Indonesian society so that to enable the country to give a meaningful roles among other nations.

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<sup>27</sup> RPJMN 2015-2019 document, BAPPENAS.

<sup>28</sup> *Ibid.*

Implementation of the visions of the national development is pursued through 8 (eight) national development missions as follows:

1. *Realizing the public morals, forming an ethical, cultured, and civilized society based on Pancasila philosophy*, that is to strengthen the identity and characters of the nation. It is carried out through education aimed at having a human being devoted to God Almighty, obeying the rule of law, maintaining the internal and inter-religious harmony, practicing harmonious intercultural interaction, developing the social capital, applying the noble values of the national culture, and having a pride as Indonesian in order to consolidate the spiritual, moral, and ethical development of the nation.
2. *Realizing that the nation's competitiveness*, that is to develop high quality and competitive human resources; improve the acquisition and utilization of science and technology through research, development, and implementation of sustainable innovation; build advanced infrastructures and reform the law and the state apparatus; strengthen the domestic economy based on the advantages of each region by building linkages between systems of production, distribution, and services including the provision of domestic services to achieve a competitive advantage.
3. *Create a democratic society based on the rules of law* by establishing a more solid democratic institutions; strengthening the role of civil society; strengthening the quality of decentralization and regional autonomy; ensuring the development and freedom of the media in communicating the public interests; reforming the legal structure and improving the culture of lawfulness and enforcing the law in a fair, consistent, non-discriminatory, and siding to the common people.
4. *Realizing a safe, peaceful, and united Indonesia*, that is to build military strength beyond the minimum essential force and respected in the region and internationally; improve the capabilities and professionalism of the police to be able to protect the people, prevent criminality and resolve crimes; develop the capability of intelligence and counter-intelligence to create of national security; and improve the readiness of reserve components and supporting components of defense, and develop national defense industry as parts of the overall national defense system.
5. *Creating and equitable distribution of development*, that is to improve of regional development; reduce social inequalities and paying special attention to the disadvantaged groups and regions; drastically alleviate poverty and unemployment; provide equal access to services for the social and economic infrastructure; and eliminate all kinds of discrimination including gender.
6. *Realizing the beautiful and sustainable Indonesia*, that is to improve the management of the implementation of sustainable development so that it keeps the balance between utilization, sustainability, availability, and the use of natural resources and the environment while maintaining the functions, capacity, and amenities for the present time and the future through the matching of utilization of space for residential, social and economic activities, and conservation efforts; improve the economic utilization of natural resources and environmental sustainability; improve the management of natural resources and environment to support the quality of life; provide beauty and comfort of life; and to better manage the utilization and preservation of biodiversity as a basic natural capital for development.



7. *Realizing Indonesia to become an independent archipelagic nation, advanced, powerful, and based on national interests*, that is to foster a maritime vision to the community and the government toward a marine oriented development of Indonesia; increase the capacity of human resources through the development of sound marine science and marine technology; manage national marine territory to defend the sovereignty and prosperity; and build an integrated maritime economy by optimizing the utilization of marine resources in a sustainable manner.
8. *Realizing the important roles of Indonesia in the international community*, that is to consolidate Indonesia's diplomacy in the context of the national interest; continued commitment of Indonesia toward identity formation and the strengthening of international and regional integration; and encourage international cooperation, inter-regional and bilateral, inter-group, and among institutions in various fields.

Thus the proposed New Urban Agenda in the context of Habitat III has become an integral part of Indonesia's national development and an elaboration of issues related to urbanization reflected on the experience and lessons learned during Habitat II period that has been undertaken by Indonesia in the past development policies and programs. Recognition that urbanization bring about transformation of the population in many dimensions, from demographic to economic, from cultural to political, and from vertical mobility to virtual participation. As Latour (2002) mentions that humanity never experience being modern, that our experience in urban areas are the first of its kind in modern world. Urbanization that creates urban areas are to be a part of irreversible change necessary in development process. In economic sense, urban areas as a competitive edges of the nation, as well as the agglomeration that produce innovation to the nations in many dimensions should be embraced and promoted.

### **9.3 The New Agenda on Urban Demography, Social Cohesion and Equity**

- Strengthen the national authority on the administration of a national demographic information system for providing reliable basic demographic profiles of cities and regions, especially temporary and permanent migration, urban areas based on urban density (population, occupancy and residential density) (UN Habitat, 2013), key social economic cultural aspects of urban living;
- Engaging 'fringe' communities, such as low income, migrants, informal sector workers, for access to urban services, including mass transportation, public spaces and job opportunities, and to collective commitment in order to integrate them into sustainable urban living;
- Continue to improve tolerance, and open mindedness as urban social project, and as a preventive approach against social clashes and potential conflict in order to increase cohesion among religious, ethnic, race and interest groups (SARA) in conducting the livelihoods, including faith based buildings;
- Prioritize at the national level, educational and professional supports for urban productive age groups and youth in order to prepare them to enter the demographic dividend era until 2025-2030, and to participate in the creation of sustainable urban future in the next twenty years;
- Support opportunities for young people to become agents of change in their community; improve the capacity of Urban Youth through education and training on the cutting edge technology to enter the global economy; enhance social and life skill so that they are able to live effectively and contribute positively in complex and challenging urban society.

- Provide integrated urban-rural population policies that strengthen the social and cultural potentials for creating a harmonious and inclusive society, and supportive to the disadvantaged segments of the population which are all done through the development of strong and effective social institutions as an integral part of the urban communities.
- Strengthen the network of urban social capital to support the foreseeable increasing urbanization in a more structured and systematic way by utilizing people's potential to actively participate in the urban development process.
- Prepare the city newcomer to behave as an urban inhabitant to prevent and decrease potential negative impacts of urbanization.

#### **9.4 The New Agenda on Urban Framework**

- Inventing the urban governance that allow for urban population who reside in unconsolidated urban areas to access urban services such as basic water and sanitation, as well as mass transit and open spaces, as well as enjoying multi ethnic, multi cultural urban environments;
- Recognizing the increased participation of non government entities, in shaping urban public interests, such as urban para transits, solid waste management, urban safety and security, and urban cultural engagements;
- Apply the new urban agenda in a structured and institutionalized system of good governance within the updated legal and regulatory framework in accordance with dynamics of sustainable development objectives from the national to the local levels.
- Ensure the new urban governance agenda being carried out as an attempt to apply democratic principles and rules of law that protect equal rights and fairness among citizens, prevent discrimination and primordial favoritism especially for public service appointments.
- Provide clear legal framework and governance system to prepare communities dealing with the impact of globalization in a fair and impartial way to better serve local interests and provide supports to disadvantaged groups, socially and economically.
- Set measurable targets to urban governance to meet the standard of 'urban service performance' through integrated programs on: (a) the attainment of urban basic services (housing, clean water, waste management, sewage treatment, drainage, pedestrian, and green open space) that meet the standard of livable city; (b) improving the quality and quantity of health and education services easily accessible for most people; (c) the provision of economic infrastructure affordable for all people.
- Improve the quality of public participation in the genuine dialogue of the participatory process through increased knowledge among the community members and improved information on strategic public issues that have an impact to the wider community.
- Adopt innovative governance model for the development of 'smart city' model through the integration of programs in: (a) the use of information and communication technology in the provision of public services through e-government, e-commerce, and e-infrastructures; (b) education and citizen engagement to promote local social and cultural capital for innovation, creativity, and productivity.

- Increase partnership and co-operation among cities and regions within the country and between countries especially in the Asia-Pacific region for experience and knowledge sharing on sustainable urbanization issues and regional economic development.
- Provide updated data and information of urban areas on economic, social, environmental, and urban services stored in the geo-spatial information system available to provide detailed accuracy to be used in the planning process on nationwide urban systems.

## 9.5 The New Agenda on Spatial Development

- Creating national urban spatial development that recognize, not only national hierarchical system that is pyramidal, but also towards polycentric nodal structures that recognize multi nodal systems. Urban cores of Indonesia should be spread among developmental regions of Indonesia, that recognize the grid model of polycentric structures and orientation towards agglomeration;
- Small and medium cities as a source of growth for sparsely populated areas are to be promoted as service centres for social economic activities. Thus, their level of services as independent entities will be treated differently. This includes level of services in health, education, job opportunities, as well as transportation activities;
- Actively regulate the private sector that provide large scale housing complex, in order to prevent a creation of urban cores that are gated, and exclusive and not mass transportation friendly. In the future, urban policies toward large scale housing complex are to be integrated into the larger well- established urban structure.
- Strengthen government control to large-scale landholdings and land speculation by the rent seekers to protect the greater value of land for public services, historic and cultural identity and other social functions of the city. This agenda is pertaining to the governance and land management, and the harmonization of agrarian reforms with spatial planning, which made open with easy access to the public to encourage transparency for sustainable spatial development.
- Encourage urban planning and spatial development directed to vertical building for intensive and more efficient land development. Increasing densification in urban areas are necessary if urban sprawl is to avoid from fertile land encroachment;
- Improve land use planning for more green spaces, and support to the innovations of new models of urban agriculture. This is to respond to population pressures and limited urban land in highly urbanized areas and metropolitan cities.
- Allocate land uses to improve access and reduce mobility, together with incentives given to reduce the use of fossil fuels and more use of renewable energy toward intermodal activities, as well as agglomeration of urban activities to reduce urban sprawl;
- Implement more inclusive urban planning and environmentally friendly design with particular consideration to the needs of children, women, families, the elderly and the disabled. Promote the current pilot models of 'green city' or 'city for the elderly' and apply them nation-wide in any new urban development projects.
- Adopt and promote a new perspective of the urban *kampungs* as a productive space the urban setting without ruling out indigeneous' land rights. Implement spatial development of the urban *kampungs* not only to improve the physical quality of housing neighborhoods, but more

importantly also to provide support and services for home-based micro-enterprises as an integral part of the larger urban economy and urban social-economic activities of the people.

- Strengthen the capacity of coastal towns that is strategically known containing 110 million people in 20-30 years to come. Implement the new agenda in the planning of coastal cities or island-cities to take the marine seafront as an extension of the hinterland, i.e., as the ‘hinter-sea’ of the urban areas within an integrated bioregion of land-and-marine or island ecosystem.

## **9.6 The New Agenda on Urban Ecology and Environment**

- Implement a new urban development model of ‘Green City’ that includes green building, climate impact and disaster resilience through the application of the ecological principles in planning and development. Apply program integration in the process by: (a) structuring, managing, and controlling the use of urban space to follow the ecological principles; (b) developing capacity in building resilient urban communities; (c) adopting green design for all human-made infrastructures and buildings.
- Strengthen the capacity of all urban agents to adapt to the long-term climate variations or climate change as a necessity in the new agenda, which is concerning with planning, governance, and legislations of urban development and of urbanization.
- Adopt, strengthen and promote a new paradigm of Indonesia as an archipelagic country – ‘a sea sprinkled with islands’ -- as new perspective in the new development agenda, namely by developing infrastructure systems combined with and integrated to the use and the function of maritime resources, and not solely rely on the conventional land-based infrastructure.
- Manage an integrated coastal areas and small islands for the sustainable use of marine resources, especially for the preservation and cultivation for food and energy sources as well as the opening of new green investment in the maritime industry, agro-/marine-products, and marine ecotourism.
- Control and reduce air pollution in urban areas through significant changes: (a) to improve access between nodes of activities and urban sub-districts; (ii) to reduce the movement of people and vehicles; (iii) to prioritize public transport and minimize the reliance on private transportation with fossil fuels. Integrate the agenda with spatial planning, transportation policy and mass transit services, together with a national strategy for the future development of renewable energy for industries and urban infrastructure.
- Promote the expansion of green open space not only to reduce air pollution but more importantly also to prevent future water crisis by providing functions of absorption and water storage and for flood control, specifically to keep the proper water balance and maintain the quality of raw water, as well as to achieve the minimum target of storing water reservoir 5% of the maximum demand of urban water.
- Promote the increase of forest areas and urban biodiversity in order to reduce the impact of air pollution and maintaining forest peatlands as part of a region-wide green open space in an effort to mitigate greenhouse gas emissions, as well as to dampen the impact of urbanization caused by out migration of people due to the loss of agro- and forest-based economy in the hinterland.

## 9.7 The New Agenda on Housing and Basic Services

- Create the alignment of housing development with the urban settlement improvement in an inclusive urban setting, through (a) social mix in planning and managing the locations of new development or the improvement of the existing ones; (b) open access to funding sources and innovative financing systems to support the under-served and marginal groups; (c) new forms of integrated *kampung* re-development as both residential areas and economic activities of the community; (iv) provision of institutional supports and participatory urban governance that actively involved and responsible for programs implementation.
- Innovate in the new urban agenda to support and enhance the special role of urban *kampung* and self-built housing as the major provider of 70% housing stocks in the city. Support and enhance the *kampung*'s role as an effective breaker of 'poverty and squalor' associated with the urban economic agenda to strengthen the ability of the *kampung*'s self-reliance so that it can play a more active role in improving the quality of housing and basic services through government intervention and system of incentives targeted toward specific objectives to develop inclusive, safe, orderly, decent, and sustainable urban neighborhoods.
- Create an effective, national system of incentives for decentralization in housing development and provision urban basic services, particularly to eliminate slums and sub-standard housing, through the application of spatial planning and urban design targeted to the low-income people. Implement the program with consideration and good understanding of the needs and capacity of those target beneficiaries.
- Improve inter-agency coordination at both central and local levels related to the new urban housing policy; a new urban agenda is focused on housing and urban development policies and plans, in which slum upgrading programs are integrated and set out in the national target to achieve the SDG targets.
- Take high priority to improving the capacity and readiness of local government in the implementation of slum eradication programs corresponding with other sectors in urban development programs, particularly in the procurement of land for the construction of affordable rental apartments (*Rusunawa*) for low-income groups and self-help housing construction.
- Give priority to housing financing facility that can be widely accessed by low-income people who work in the informal sector, including those who have been actively provided the largest share up to 70% - 80% of self-built housing. Expand housing financing services, such as the Housing Finance Liquidity Facility (FLPP), which so far has already reached low-income salaried workers. Promote and apply more variety of alternative housing financing to serve the non-waged, informal, micro-enterprise workers who have streams of income yet untapped in the existing formal financial system.
- Improve the effectiveness of affordable rental apartments development program for low-income groups through a more accessible and transparent financial system, in a way that provides fair and impartial subsidy system whenever the conditions requires.
- Improve the effectiveness and efficiency of infrastructure financing and to develop alternative funding mechanisms or Public Private Partnership (PPP) prioritized to assist local governments foreconomic infrastructure investments. This agenda associated with more optimal utilization of

alternative funding sources such as CSR funds, social funding facilities to support social infrastructures for local communities.

- Implement a rational calculation of tariffs in conjunction with the financing system of urban basic services that satisfies the principle of full cost recovery whenever feasible, as well as to consider the customer's ability to pay where cross-subsidies can be given fairly to the desperate urban poor in need.
- Put priority to the provision and preservation of land to ensure the quality of raw water sources, especially in the hinterland, so that good quality of water service can be provided in an affordable way. Also, synergize water supply and sanitation services with other programs at the ministries or agencies, such as through the provision of school sanitation, agriculture development, reforestation and other similar programs related to the use of natural resources to ensure the preservation and maintenance of water sources.
- Integrate cross-sectoral policies to ensure the sustainability of economic and social infrastructures through various means of governance and legislations. Among other programs to be promoted, such as, technical support to improve the readiness of the local government, licensing, community health and disease prevention, renewable energy application, rainwater harvesting, and other new innovation in infrastructure development.
- Improve the effectiveness of infrastructure asset management and maintenance, to extend the economic life and satisfy the standard parameters of quantity, quality, continuity, and affordability as well as to retrofit them with green technology for sustainable use.

## **9.8 The New Agenda on Urban Economy**

- Implement the new agenda on urban economic development by carrying out quality improvement of the human resources, and encourage certification of competence for workforce skills to be competitive in the ASEAN and international markets.<sup>39</sup>
- Implement the new agenda on urban economic development geared to achieve balanced development between regions, rural and urban areas, and to achieve synergies of among national economic growth centers through effective and efficient connectivity of transportation mode and system and integrated telecommunications. In particular, give attention to eliminate disparities between Eastern and Western parts of Indonesia.<sup>40</sup>
- Improving urban public budget that is accountable and transparent, as well as effective so that evaluation of public budget allocation can be accountable. This is also to encourage balanced transfer of funding from the national level;
- Increase opportunities for local governments to gain access of non governmental funding, to be used for capital expenditure on urban infrastructure and urban social economic development activities;

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<sup>39</sup>Quoted from the mid-term national development plan, RPJMN 2015-2019.

<sup>40</sup>*Ibid.*

- Stimulate urban investment and economic activities in sectors that have not been fully developed by increasing the synergy and coordination among the different institutions to maximize quality for business services and state own companies or government investment, as well as private and public partnerships.<sup>41</sup>
- Improve regional financial governance through capacity building of local financial managers and to develop the performance of government officials for a more innovative city, which is not limited to boost government revenues, but also to allocate and spend funds on strategic priorities.
- Improve fiscal governance with certain tax transfer from the province to the city in line with human resource capacity building in the city and the utilization of private resources and public financing.
- Open cities for the global market, and simultaneously strengthen a balanced relationship between cities and their hinter-region (land and sea), economically and ecologically. Encourage the development of agro- and marine-based processing industries at the urban centers and open the market for products derived from the hinter-regions as well as for the products of small and micro enterprises and also creative industries initiated by local actors and communities in the urban *kampung*.
- Strengthen the role of urban *kampung* as the place for people's economy, synergize with the formal sectors through market incentives and more inclusive urban economic policy, as well as to boost local identity and maintain the richness of social diversity of urban life.

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<sup>41</sup>*Ibid.*





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Relevant laws and regulations that are related to urban governance, whether direct or indirectly, can be seen in the following matrix.

### **Matriks of Laws and Regulations related to Urban Development**

ASPECT	LAW	Government Regulation
<b>Land and Spatial</b>	• Law No. 5 /1960 on Agraria	• Government Regulation No. 16

ASPECT	LAW	Government Regulation
Planning	<ul style="list-style-type: none"> <li>• Law No. 26 /2007 On Spatial Planning</li> <li>• Law No. 2 /2012 on Land Provision for Public Purpose</li> </ul>	<p>Year 2004 on Land Use</p> <ul style="list-style-type: none"> <li>• Government Regulation No.26 /2008 on National Spatial Plan</li> <li>• Government Regulation No. 15 / 2010 on Spatial Planning</li> <li>• Government Regulation No. 68 /2010 on Form and Method of Community Participation in Spatial Planning</li> </ul>
Urban Governance, Planning and Management	<ul style="list-style-type: none"> <li>• Law No. 17 /2003 on State Budget</li> <li>• Law No. 25 /2004 on National Planning System</li> <li>• Law No. 32 /2004 on Regional Governance</li> <li>• Law No. 33 /2004 on Fiscal Balance</li> <li>• Law No. 23 /2006 on Demographic Administration</li> <li>• Law No. 17 /2007 on Long Term Development Plan 2005-2025</li> <li>• Law No. 14 /2008 on Access to Public Information</li> <li>• Law No. 25 /2009 on Public Service</li> </ul>	<ul style="list-style-type: none"> <li>• Government Regulation No. 65 /2005 on Minimum Service Standard</li> <li>• Government Regulation No. 38 /2007 on Governmental Task and Function Sharing</li> <li>• Government Regulation No. 34 /2009 on Guideline for Urban Management</li> <li>• Government Regulation No. 57 /2009 on Population Management</li> </ul>
Natural Resource, Environment and Disaster Management	<ul style="list-style-type: none"> <li>• Law No. 7 /2004 on Water Resource</li> <li>• Law No. 24 /2007 on Disaster Manageemnt</li> <li>• Law No. 27 /2007 on Coastal and small Islands Management</li> <li>• Law No. 18 /2008 on Solid Waste Maangement</li> <li>• Law No. 32 /2009 on Environmental Management and Protection</li> </ul>	<ul style="list-style-type: none"> <li>• Government Regulation No. 21 /2008 on Disaster Management</li> <li>• Government Regulation No. 42 /2008 on Water Resource Management</li> <li>• Government Regulation No. 43 /2008 on Ground Water</li> </ul>
Housing, Basic Services and Infrastructure	<ul style="list-style-type: none"> <li>• Law No. 28 /2002 on Building</li> <li>• Law No38 /2004 on Road</li> <li>• Law No23 /2007 on Train</li> <li>• Law No22 /2009 on Traffic and Land Transportaiton</li> <li>• Law No11 /2010 on Natural Conservation</li> <li>• Law No. 1 /2011 on Housing and</li> </ul>	<ul style="list-style-type: none"> <li>• Government Regulation No 16 /2005 on Water Resource System Development</li> <li>• Government Regulation NO. 34 /2006 on Road</li> <li>• Government Regulation No. 44 /2009 on Revisin over Governemnt Regulation No.</li> </ul>

ASPECT	LAW	Government Regulation
	Settlements <ul style="list-style-type: none"> <li>• Law No. 20 /2011 on Apartment/Flats</li> </ul>	15/2005 on Toll Road <ul style="list-style-type: none"> <li>• Government Regulation No. 56 /2009 on Train Management</li> <li>• Government Regulation No. 72 /2009 on Traffic and Railway Transportation</li> </ul>
Investment and Economy	<ul style="list-style-type: none"> <li>• Law No. 25 / 2007 on Capital Investment</li> <li>• Law No. 20 /2008 on Small Medium Enterprises</li> <li>• Law No. 10 /2009 on Tourism</li> </ul>	

## Annex 1 - Indicators

### i. Percentage of people living in slums

Year	Percentage
1996	17.02
2006	13.52
2013	11.63

Source: Statistics Indonesia

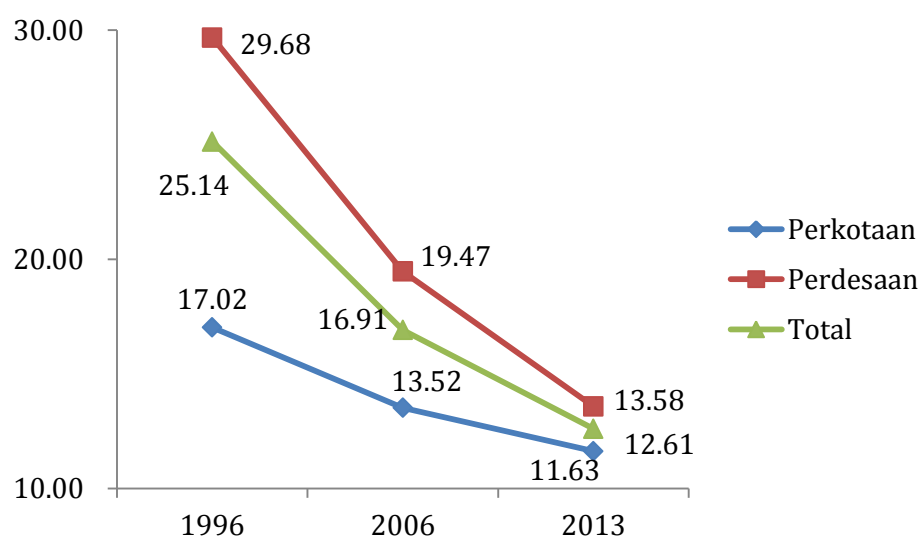
#### Indicator of slums

According to Statistics Indonesia (If the score is less than 35 %, the household is considered living in slum).

1. Have access to drinking water from piped water, rain water, pum/waterholes, impermeable wells, springs with a distance  $\geq 10$  m from waste collection bins. If Bottled water (branded or reuse) is consumed, t.he household is categorized as having no access to drinking water (weight : 15%)
2. Have access to sanitation are those households who own facilities for individual or communal defecation, closet swan neck, and septic tanks as final liquid disposal (weight 15%)
3. Have durability of housing with a weight of 35% and the criteria are: 1) type of sizable roof from bamboo rayon; 2) sizable walls from bamboo; 3) sizable floor is from soil.
4. Sufficient living areas are minimal floor size od  $> 7,2$  m2 (weight 35 kg)

#### Percentage of people living in slums

In urban areas or *perkotaan* and rural areas or *perdesaan*



### ii. Percentage of urban population with access to adequate housing

Indikator	Urban areas	Rural areas	TOTAL
Own house	72.17	88.07	80.18
<b>Rental house</b>	<b>15.28</b>	<b>1.32</b>	<b>8.24</b>
More permanent (non-thatched) roof	99.31	94.71	96.99



Indikator	Urban areas	Rural areas	TOTAL
More permanent (no-bamboo) walls	94.39	85.72	90.02
More permanent (no soil based) floors	96.60	86.17	91.34
Per person floor area < 7.2 m <sup>2</sup>	13.84	11.37	12.60

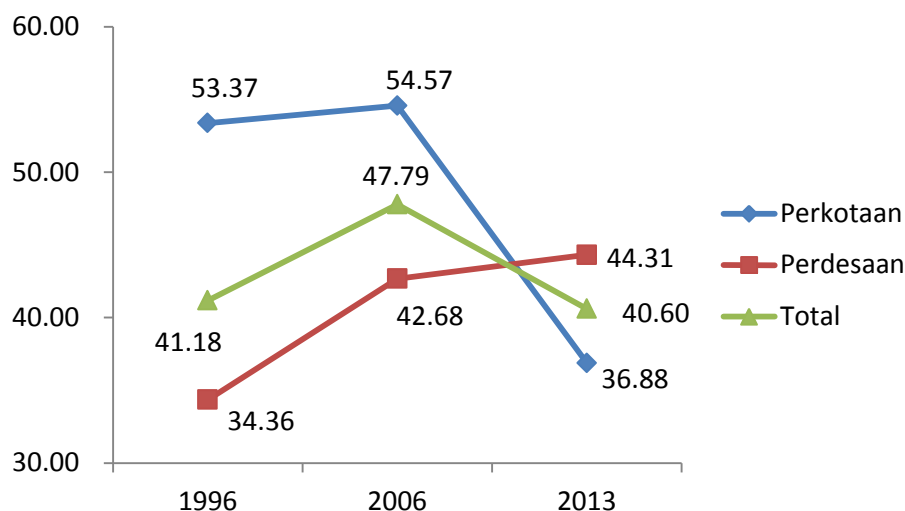
Source: Statistics Indonesia

**iii. Percentage of people residing in urban areas with access to safe drinking water**

Province	1996	2006	2013
Aceh	26,12	31,34	31,86
Sumatera Utara	37,84	50,67	38,43
Sumatera Barat	35,54	46,45	33,54
R i a u	45,96	46,54	35,63
J a m b i	38,27	46,62	39,66
Sumatera Selatan	35,51	45,26	43,43
Bengkulu	21,20	36,73	26,10
Lampung	24,92	42,92	40,37
Bangka Belitung	-	31,39	25,47
Kepulauan Riau	-	57,03	14,10
DKI Jakarta	58,58	56,85	21,91
Jawa Barat	33,70	38,82	30,99
Jawa Tengah	42,17	54,58	54,56
D.I. Yogyakarta	42,54	54,93	60,81
Jawa Timur	50,62	52,87	52,50
Banten	-	34,49	19,94
B a l i	59,73	60,33	50,29
Nusa Tenggara Barat	30,51	39,67	41,64
Nusa Tenggara Timur	40,31	45,00	45,19
Kalimantan Barat	49,01	55,38	50,51
Kalimantan Tengah	31,62	37,37	27,52
Kalimantan Selatan	42,60	54,16	48,95
Kalimantan Timur	59,74	65,61	27,76
Sulawesi Utara	42,13	56,08	32,06
Sulawesi Tengah	34,67	39,45	37,77
Sulawesi Selatan	36,54	50,12	45,14
Sulawesi Tenggara	41,14	53,83	52,32
Gorontalo	-	39,44	35,25
Sulawesi Barat	-	33,19	30,30
Maluku	47,04	56,26	45,78
Maluku Utara	-	45,03	47,08
Papua Barat	-	43,25	43,48
Papua	33,68	36,33	25,22
<b>Indonesia</b>	<b>41,18</b>	<b>47,79</b>	<b>40,60</b>

Source: Statistics Indonesia

**Definition:** Safe drinking water is a source of household drinking water and / or cooking and / or bathing / washing comes from the tap, rain water, and pumps / boreholes, protected wells, protected springs with a distance  $\geq 10$  m (only for drinking water ) from septic tank.



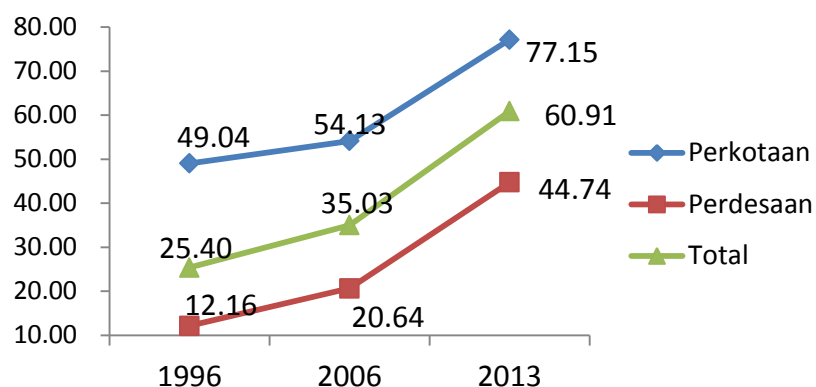
#### iv. Percentage of people residing in urban areas with access to adequate sanitation

Year	Percentage
1993	53,64
1994	57,71
1995	45,02
1996	49,04
1997	50,66
1998	51,19
1999	56,14
2000	53,73
2001	56,56
2002	57,29
2003	56,73
2004	59,20
2005 <sup>4)</sup>	n.a
2006	54,13
2007	64,67
2008	66,70
2009	69,51
2010	72,78

Source: Statistics Indonesia

Adequate sanitation is the use of household waste facility privately and shared, with the swan neck type toilets, and landfills are a cesspool of feces. Formula: The numbers of households

that use waste facility are on its own and or shared, with the swan neck type of toilet, and fecal landfills is a septic tank Total Number of Households.



Year	Urban areas	Rural areas	Total urban + rural
1993	53,64	11,10	24,81
1994	57,71	12,24	27,52
1995 <sup>r</sup>	45,02	9,63	21,93
1996 <sup>r</sup>	49,04	12,16	25,40
1997 <sup>r</sup>	50,66	14,04	27,65
1998	51,19	15,62	28,90
1999	56,14	17,27	32,56
2000 <sup>1)</sup>	53,73	17,39	32,72
2001 <sup>2)</sup>	56,56	17,26	34,30
2002 <sup>3)</sup>	57,29	18,03	35,64
2003	56,73	20,66	35,61
2004	59,20	22,52	38,13
2005 <sup>4)</sup>	n.a	n.a	n.a
2006	54,13	20,64	35,03
2007	64,67	28,63	44,20
2008	66,70	31,40	48,56
2009	69,51	33,96	51,19
2010	72,78	38,50	55,54

Notes:

1) Year 2000, national census was not conducted in Provinces of NAD and Maluku

2) Year 2000, national census was not conducted in the Province of NAD

3) Year 2002, national census was conducted in Provinces NAD, Maluku, North Maluku, and Papua at the provincial cities

4) Year 2005, sanitation was not in the national census questions

#### v. Percentage of people residing in urban areas with access to regular waste collection

(Data is not available)

It is estimated that just over half (56 percent) of Indonesians have access to waste collection and disposal systems (<http://www.indii.co.id>).

Region	Population (million)	Population being Served (million)
Sumatera	49.3	23.4
Jawa	137.2	80.8
Bali & Nusa Tenggara	12.6	6
Kalimantan	12.9	6
Sulawesi & Papua	20.8	14.2
Total	232.8	130.4

Source: Statistik Persampahan Indonesia 2008, Ministry of Environment  
(from Indii SWM Scoping Study)

#### vi. Percentage of people residing in urban areas with access to clean domestic energy

Percentage Access to Electricity by Province in 2013

Province	Percentage
Aceh	2.09%
Sumatera Utara	5.42%
Sumatera Barat	2.03%
Riau	1.86%
Jambi	1.03%
Sumatera Selatan	2.61%
Bengkulu	0.70%
Lampung	2.84%
Bangka Belitung	0.55%
Kepulauan Riau	0.80%
DKI Jakarta	8.28%
Jawa Barat	19.02%
Jawa Tengah	14.98%
D.I Yogyakarta	1.73%
Jawa Timur	16.82%
Banten	1.93%
Bali	1.85%
Nusa Tenggara Barat	1.62%
Nusa Tenggara Timur	1.04%
Kalimantan Barat	1.49%
Kalimantan Tengah	0.76%
Kalimantan Selatan	1.68%
Kalimantan Timur	1.40%
Sulawesi Utara	0.96%
Sulawesi Tengah	0.83%

Province	Percentage
Sulawesi Selatan	2.93%
Sulawesi Tenggara	0.61%
Gorontalo	0.33%
Sulawesi Barat	0.27%
Maluku	0.47%
Maluku Utara	0.30%
Papua Barat	0.30%
Papua	0.46%

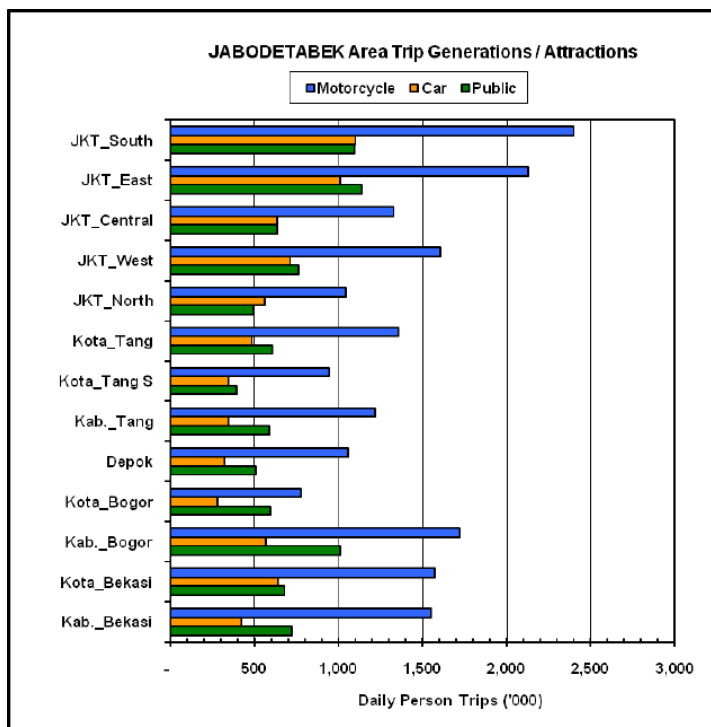
Source : Statistic Indonesia (2014)

Electrification ratio is still low (0.85 TOE). In 2011, only as many as 72.95% of total population get access to electricity. At the regional level in Indonesia, there is also unequal access to electricity. For example, in DKI Jakarta province, the electrification ratio reached 100 %, while in Sulawesi Barat, Papua, and Nusa Tenggara Timur (NTT) the ratio was about 30 % in 2011 ([www.seadipproject.com](http://www.seadipproject.com)).

#### vii. Percentage of people residing in urban areas with access to public transport

(Not Available)

World Bank study shows that despite rapid infrastructure development in large urban areas, traffic congestion continues to hamper large cities like Jakarta, Bandung, Medan, Surabaya, and many satellite towns like Bogor, Bekasi, and Tangerang. Public transport, including buses, minibuses, and taxis, is commonly used despite poor public transport facilities. The city of Jakarta has implemented a Bus Rapid Transit system on several kilometers on key city route to help ease traffic congestion, particularly at peak times.



Source : JAPTraPis Report (2012)

### The Road Based transportation performance in DKI Jakarta Province

Indicators		2010 (Existing)
Total travel demand (trips)		66 mio
Share mode	Cars	20%
	Motorcycles	53%
	Public transportation	27%
Traffic load	PCU-km	150 mio
	PCU-hours	10 mio
Traffic performance	V/C (daily)	0,85
	Travel speed	23,6 km/hour
Public transportation	Pax-km/trip	9,3 km
	Pax-hour/trip	0,41 hour

Source : JAPTraPis Report (2012)

#### viii. Level of effective decentralization for sustainable urban development measured by:

- i) Percentage of policies and legislation on urban issues in whose formulation local and regional governments participated from 1996 to the present;

Type of spatial plan		Total	Percentage
1	RTRW-K (Municipal general spatial plan)	77 (of 93)	82.8%
2	RTRW-Kab (District general spatial plan)	304/398	76.4%
3	RTRW Provinsi (Provincial general spatial plan)	25/33	75.8%
4	RTR Pulau (Main Island Spatial Plan)	7/8	87.5%
5	RTR KSN Kawasan Perkotaan (Metropolitan Spatial Plan)	6/6	100%

- ii) Percentage share of both income and expenditure allocated to local and regional governments from the national budget;

Region	Percentage
Sumatera	72.38
Jawa-Bali	53.46
Kalimantan	76.20
Sulawesi	77.40
NTT-Maluku-Papua	76.25

Source: Analysis Compilation from Ministry of Finance, 2013. <http://www.djpk.kemenkeu.go.id>

**iii) Percentage share of local authorities' expenditure financed from local revenue**

Province	Income (IDR)	Expenditure (IDR)	Percentage
Aceh	31.299.304	34.059.953	108,8%
Sumatera Utara	39.785.559	40.922.186	102,9%
Sumatera Barat	18.705.631	20.060.280	107,2%
Riau	29.705.870	35.513.132	119,5%
Jambi	13.238.536	14.447.949	109,1%
Sumatera Selatan	29.266.664	29.582.175	101,1%
Bengkulu	8.289.510	8.693.585	104,9%
Lampung	19.265.761	19.989.209	103,8%
DKI Jakarta	64.715.735	64.882.747	100,3%
Jawa Barat	75.578.375	81.022.102	107,2%
Jawa Tengah	63.535.931	67.459.775	106,2%
DI Yogyakarta	10.194.409	10.856.090	106,5%
Jawa Timur	78.451.700	83.205.776	106,1%
Kalimantan Barat	16.927.190	17.600.164	104,0%
Kalimantan Tengah	14.714.970	15.664.187	106,5%
Kalimantan Selatan	17.618.518	20.306.326	115,3%
Kalimantan Timur	34.540.630	43.817.728	126,9%
Sulawesi Utara	11.607.625	12.123.069	104,4%
Sulawesi Tengah	11.667.496	11.889.037	101,9%
Sulawesi Selatan	27.465.774	28.435.498	103,5%
Sulawesi Tenggara	11.461.901	12.084.583	105,4%
Bali	15.419.210	16.939.000	109,9%
Nusa Tenggara Barat	12.582.114	12.941.862	102,9%
Nusa Tenggara Timur	16.816.686	17.393.027	103,4%
Maluku	8.993.918	9.299.396	103,4%
Papua	37.277.461	38.796.197	104,1%
Maluku Utara	7.214.504	7.424.566	102,9%
Banten	21.598.196	23.897.310	110,6%
Bangka Belitung	11.414.384	12.295.539	107,7%
Kepulauan Riau	10.814.269	12.406.671	114,7%
Papua Barat	14.905.478	15.594.663	104,6%
Sulawesi Barat	4.768.405	4.935.635	103,5%
Kalimantan Utara	8.024.153	11.702.300	145,8%
TOTAL	797.865.865	856.241.717	

Source: [www.djpk.kemenkeu.go.id](http://www.djpk.kemenkeu.go.id) , 2015



**ix. Percentage of city, regional and national authorities that have implemented urban policies supportive of local economic development and creation of decent jobs and livelihoods**

(Not Available)

**x. Percentage of city and regional authorities that have adopted or implemented urban safety and security policies or strategies**

(Not Available)

**xi. Percentage of city and regional authorities that have implemented plans and designs for sustainable and resilient cities that are inclusive and respond to urban population growth adequately**

(Not available)

**xii. Share of national gross domestic product (GDP) that is produced in urban areas**

Gross Regional Domestic Product (GRDP) on Current Price 2012

Province	GRDP on Current Price (trillion Rp)	GRDP Share
Aceh	96,2	1,4%
Sumatera Utara	351,1	5,2%
Sumatera Barat	110,1	1,6%
Riau	469,1	7,0%
Kepulauan Seribu	91,7	1,4%
Jambi	72,7	1,1%
Sumatera Selatan	206,3	3,1%
Kepulauan Bangka Belitung	34,3	0,5%
Bengkulu	24,2	0,4%
Lampung	144,6	2,1%
DKI Jakarta	1103,7	16,4%
Jawa Barat	946,9	14,1%
Banten	212,9	3,2%
Jawa Tengah	556,5	8,3%
DI Yogyakarta	57	0,8%
Jawa Timur	1001,7	14,9%
Bali	83,9	1,2%
Nusa Tenggara Barat	49,5	0,7%
Nusa Tenggara Timur	35,3	0,5%
Kalimantan Barat	75	1,1%
Kalimantan Tengah	55,9	0,8%
Kalimantan Selatan	75,9	1,1%
Kalimantan Timur	419,1	6,2%
Sulawesi Utara	47,2	0,7%
Gorontalo	10,4	0,2%

Province	GRDP on Current Price (trillion Rp)	GRDP Share
Sulawesi Tengah	51,1	0,8%
Sulawesi Selatan	159,4	2,4%
Sulawesi Barat	14,4	0,2%
Sulawesi Tenggara	36,6	0,5%
Maluku	11,5	0,2%
Maluku Utara	6,9	0,1%
Papua	77,8	1,2%
Papua Barat	42,8	0,6%
	6731,7	

Source : Statistic Indonesia (2013)

**xiii. Any other urban-related data relevant to the National Report**

Percentage of Urban Population

Year	National Population	Percentage of Urban Population	Urban Population
1971	119.208.229	14,8	17.642.817
1980	147.490.298	17,4	25.663.311
1990	179.378.946	30,9	55.428.094
2000	206.264.595	42,3	87.249.923
2010	237.641.326	49,8	118.345.380
2015	255.461.700	53,3	136.161.086

Population Percentage by Province and Gender, 2011-2013

Province	Male		Female	
	2012	2013	2012	2013
Aceh	50.04	49.90	9.96	50.10
Sumatera Utara	49.94	49.88	0.06	50.12
Sumatera Barat	49.60	49.67	0.40	50.33
R i a u	51.51	51.37	8.49	48.63
J a m b i	51.12	51.04	8.88	48.96
Sumatera Selatan	50.90	50.81	9.10	49.19
Bengkulu	51.12	51.01	48.88	48.99
Lampung	51.48	51.32	48.52	48.68
Kepulauan Bangka Belitung	51.91	51.87	48.09	48.13
Kepulauan Riau	51.35	51.16	48.65	48.84
DKI Jakarta	50.69	50.36	49.31	49.64

Province	Male		Female	
	2012	2013	2012	2013
Jawa Barat	50.88	50.74	49.12	49.26
Jawa Tengah	49.69	49.60	50.31	50.40
DI Yogyakarta	49.43	49.39	50.57	50.61
Jawa Timur	49.36	49.33	50.64	50.67
Banten	51.16	51.03	48.84	48.97
B a l i	50.40	50.32	49.60	49.68
Nusa Tenggara Barat	48.53	48.48	51.47	51.52
Nusa Tenggara Timur	49.67	49.55	50.33	50.45
Kalimantan Barat	51.11	50.98	48.89	49.02
Kalimantan Tengah	52.16	52.18	47.84	47.82
Kalimantan Selatan	50.63	50.60	49.37	49.40
Kalimantan Timur	52.64	52.55	47.36	47.45
Sulawesi Utara	51.09	51.03	48.91	48.97
Sulawesi Tengah	51.26	51.15	48.74	48.85
Sulawesi Selatan	48.85	48.81	51.15	51.19
Sulawesi Tenggara	50.26	50.21	49.74	49.79
Gorontalo	50.18	50.10	49.82	49.90
Sulawesi Barat	50.20	50.13	49.80	49.87
Maluku	50.56	50.47	49.44	49.53
Maluku Utara	51.16	51.02	48.84	48.98
Papua Barat	52.91	52.69	47.09	47.31
P a p u a	53.16	52.84	46.84	47.16
Indonesia	50.35	50.25	49.65	49.75

Source : Statistic Indonesia (2014)

#### Youth Jobs Clasification in Urban and Rural Area, 2010

Job Classification	Urban		Rural		Urban-Rural	
	Total	%	Total	%	Total	%
Enterpreunership	2.401.338	4,75	2.816.860	7,64	5.218.198	16,18
Enterpreunership with voluntary worker	264.451	1,62	1.556.247	9,75	1.820.698	5,65
Enterpreunership with paid worker	463.726	2,85	370.263	2,32	833.989	2,59

Labour/ Employee	10.938.028	67,17	4.169.897	26,12	15.107.925	46,84
Freelancer	1.478.967	9,08	2.139.368	13,40	3.618.335	11,22
Voluntary worker	738.081	4,53	4.914.040	30,78	5.652.121	17,53
Total	16.284.591	100,00	15.966.675	100,00	32.251.266	100,00

Source : Youth Statistic 2010 (Simanjuntak, 2012)

## Annex 2 – Case Studies

### Solo – Street Vendor Management

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Solo (also known as Surakarta) is a city in Central Java with population of around 500.000 over an area of 44 km<sup>2</sup>. The 1997 monetary crisis marked the increased flow of migrants from surrounding poorer rural areas into Solo, to survive the currently weakened economy. For these poor migrants, informal economy was their only accessible means for daily income, particularly as street vendors. By 2006, the number of unregulated street vendors in the city was estimated to be 5.817, occupying nooks and corners of the city, including sidewalks and public spaces. The unregulated spatial occupation had results in numerous negative issues for the city, including disruption of traffic flows, unmanaged piles of solid waste, non-functionality of public places, etc. The largest flock of street vendors at that time was in the site of *Monumen 45 Banjarsari* Park (referred to as *Taman Monjari*), occupied by almost 1000 street vendors. Past efforts to relocate the street vendors repeatedly failed and often ended with conflicts between the municipal government and the street vendors.

The current Mayor at that time, Joko Widodo (2005-2012) – now the President of Indonesia, demonstrated an inclusive approach in tackling this issue by viewing these street vendors (now referred to as traders) as potential informal economic assets instead of nuisance; inhabitants instead of illegal settlers. A street vendor management program was introduced, with objectives to reinstate the original function of public space in *Taman Monjari* and to create a suitable environment for street vendors that would improve their livelihood

#### Process and Solution

The processes were carried out in the following stages:

- Stage 1: Prepared required information about the street vendors. This refers to a survey for profiling of the street vendors, including origin, style of trades, type and size of stalls. This was done by researches from a local university, *Universitas Nasional Sebelas Maret* (UNS) with local NGOs. The survey identified 18 types of street vendors. The survey also sought recommended solutions in handling the issue. Four main strategies were then identified:
  - Building better communication amongst stakeholders
  - Creating space for streets vendor by relocation, umbrella-tents and carts or in modified shelters,
  - Providing legal status (secure tenure) to the street vendors' business;
  - Capacity building on managerial skills and entrepreneurship for street vendors
- Stage 2: built better communication with street vendors. Local NGOs - Consortium for Monitoring and Empowerment of Public Institutions (*Konsorsium Monitoring dan Pemberdayaan Institusi Publik – KOMPIP*) and Solidarity for Surakarta's Marginal Community (*Solidaritas Masyarakat Pinggiran Surakarta – SOMPIS*) were invited as community facilitators. Informal leaders/representatives of street vendors were approached for dialogues, which took place at the Mayor's official residence, popularly referred to by the Solo locals as *Loji Gandrung*. The venue was considered a sacred place by the Solo community, and having it as the venue, attributed as one of the dialogue's success factor. In the dialogue, the mayor listened to the street vendors' concerns and was willing to negotiate. As response to the municipality's offer, the street vendors agreed to the relocation with terms that the local government provide tax exemption, promote the new marketplace and execute the relocation through a traditional procession referred to as *kirab*. In the Javanese culture, *kirab* symbolizes the move to a new home or place.

After more than 50 meetings, a Memorandum of Understanding was signed between the Solo Municipality, Association of Monjari Traders, and SOMPIS. The Municipality agreed to provide incentives such as free kiosks, working capital, free trading licenses and grace period of trade tax for first six months. To maintain marketability, a weekend festival market will be held at the new market place.

- Stage 3: Mobilized resource. This stage includes several measures:
  - Lobbied the local parliament (DPRD) to secure budget. The market place area covered 11.950 m2 and could hold 1.018 kiosks, with total cost of IDR9 billion (approx. USD\$1 Million). The budget was shared between the municipality annual budget and the street vendors' self-help budget to cover for: a) social and institutional preparation, physical and construction of relocation sites, stalls, carts and tents; b) relocation costs and free license fee; c) research and training; d) working capital for street vendors and; e) promotion of the new marketplace;
  - Canvassed political support from the DPRD, and social support from the regional management (Muspida), vendors, vendors *paguyuban* (association), NGOs, media, public figures, and the general public to minimize potentiality of conflicts and inconsistencies in the relocation plan; and
  - Established a technical team that includes multi government units, amongst others, the market management unit, public works unit, sanitation and park unit, spatial planning unit and local police force and UNS to formulate a robust technical plan on the relocation (alternative venue, change of traffic flow, blue print, etc). The design of blueprint and construction of the new marketplace was done by the UNS, whilst simultaneously, the municipal administrators provided the training and orientation to the new place, as well the supporting infrastructure including promotion to attract buyers. The municipal government also provided assistance to the vendors in the form of capital, marketing, and other incentives, such as retribution relief.
- Stage 4: Conducted the traditional procession of relocation (referred to as *kirab*) of 989 street vendors, with 989 traditional rice offerings and horse carts carrying city government leaders. The procession symbolized a peaceful movement to a new place, and that the government was standing by its citizens.



Picture 1: Kirab, the Traditional Procession

- Stage 5: established a street vendor association and had it merged into the *Masyarakat Mandiri* Cooperative. Training and capacity building for the vendors were also provided, particularly on the subject of business and market management. To increase exposure and marketability of the newly-built markets, the city information offices provided publications on the Street Vendor Management program.

## Result and Impact

1. Increased economic opportunity for the street vendors and better livelihoods. The new market place is now a major trade area for automotive, motorcycles, electronics, cell phones and secondhand goods and provided more than one thousand traders with secure tenure, since they all have licenses to trade (SIUP) and occupation permits (SIP). Informal sectors in the city now have a better place to work, not only at the *Semanggi* Market Place (where the automotive vendors have been able to increase their revenue by 200%~400%), but also at the clusters provided along major streets and the Solo City Walk. The new vendor carts are more attractive and able to create a unique traditional atmosphere for citizens and tourists. The marketplace has also provided job opportunities to the former parking attendants at *Taman Monjari* and street hustlers.
2. Increased city's revenue from tax and retribution fees from the increased number of taxpayers and retribution income rate from the small business. The additional revenue was then used to restore *Taman Monjari* (where the street vendors previously hawked). New trees were planted; playing facility for children were built and community now have another open green space.
3. Citizens' trust towards the municipality. The acknowledgment towards the informal sector, acceptance to the city's marginal communities and the use of communicative dialogues, had demonstrated the municipal government's inclusive approach, which arguably could be seen as a smart political investment.
4. Elevated city reputation. This program is an example of strong leadership and participation in city development and had been documented in various articles nationwide and local newspapers, government newsletters and bulletins, as well documentation in video compact disc. The then Mayor also had been invited to speak in various seminars, national and international, having many people inspired with his leadership and want to work closely with the local communities of Solo. The municipal government received numerous awards, amongst them are the Innovation in Urban Management (*Inovasi Manajemen Perkotaan – IMP*) from the Ministry of Home Affairs. This award is usually given to local government that successfully upgrades slum areas; manage its vendors and the city's spatial structure.



Picture 2: New Marketplace in Semanggi



Picture 3: Taman Monjari occupied by Street Vendors





Picture 4: Taman Monjari Nowadays

## Sustainability

The success of the relocation to the *Lithikan Notoharjo* Market inspire a chain of voluntary street vendors relocations in other part of the city. Several scenarios were introduced in the vendor management program: i) relocation if space is too limited and unable to accommodate existing number of vendors; ii) provision of knock-down shelter in areas where space are available – to be dismantled at required time; iii) tents for vendors that only operates at night time; and iv) standardized carts for areas with insufficient space to build shelter nor tents. Sanction will only be given to vendors who refused to obey the established regulation. The government unit in charge to manage the continuity of the program in Solo is the Community Empowerment Unit (*Badan Pemberdayaan Masyarakat – BPM*) and market management unit.

This approach can easily be adopted by other cities, with terms that a strong commitment and leadership was in place as well as technical, political and financial support from relevant stakeholders. Adjustment can be made in accordance to the city's characteristics in regard to phasing or solutions provided.



Picture 5: Designated Shelter for Street Vendors



Picture 6: Standardized Carts for Street Vendors

Sustainability of this program was indicated by the enactment of regional regulation on this approach (Regional Regulation No.3 Year 2008), which will enable continuation of capacity building program, maintenance and improvement of the market operation management. As of mid 2007, the municipality was able to integrate most of the informal sector (around 51%) into their development plan. This initiative was guided by the regulation of the city, such as the Mayor Regulation (*Perwali*) to legitimate the investment and make the parliament approved the budget, officially acknowledging informal sector within the city development plan.

The city also had received additional funding State Ministry of Cooperatives (Rp. 5 Billion) to support the empowerment of cooperatives, including the cooperative that was established to support the market operation of *Lithikan Notoharjo* Market.

## Solo – Solo Kota Kita as Neighborhood Advocacy and Citizen Planning

Solo (or also known as Surakarta) is a city in Central Java with population of 552.650 over an area of 44 km<sup>2</sup>. The municipal government had looked for ways to strengthen citizens' engagement in the planning and budgeting process since 2001, and had welcomed Solo Kota Kita (Our City Solo), a project supported by Ford Foundation, USAID, and UN-HABITAT that developed tools for neighborhood advocacy and citizen planning in Solo, in 2009. The goal of Solo Kota Kita is to increase awareness of their neighborhood issues and their rights to advocate these concerns in the participatory planning and budgeting meetings— known locally as *musrenbang* [see box 1 for definition]. This goal is accomplished through a community-based approach of collecting and sharing data about the urban environment with citizens and local government in Solo. The main tool of the project is the “mini atlas,” a poster that shows how neighborhoods work and illustrates patterns of social and economic problems and opportunities.

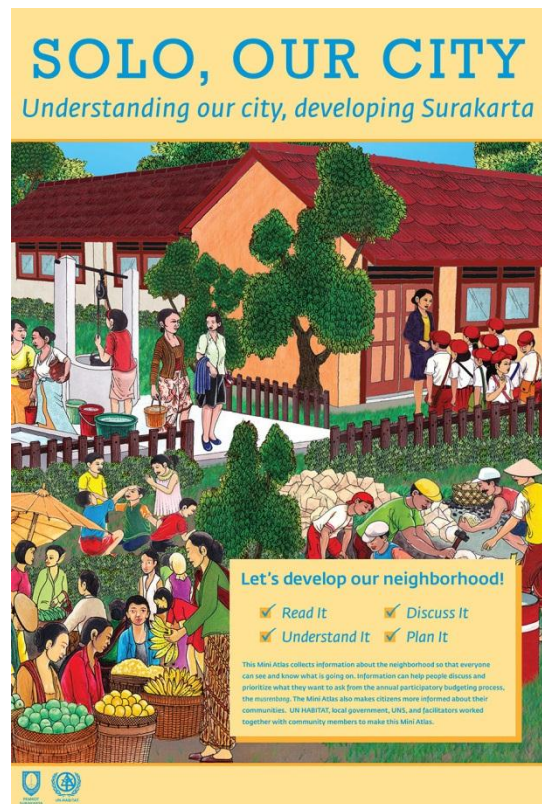
The initiative began in March 2009 as a pilot project and gained the support of then Mayor Joko Widodo – now President of Indonesia – to launch a small group of dedicated architecture students from *Universitas Sebelas Maret* (local university in Solo- UNS) to survey and map all 51 neighborhoods in Solo as part of the Solo Kota Kita's community facilitator team. Since then, the facilitators had collected data for every neighborhood in Solo twice. The first survey was completed in 2010 and the information was compiled into a database as well as into the 51 mini atlases. The survey was conducted again in 2012 to update the database, this time using a new SMS tool that allows residents to send data to the team with mobile phones.

The mini atlases were introduced into the *musrenbang* process in 2010 with the support of the local government planning and budgeting department (*BAPPEDA*), and had allowed participated citizens to access information about how their neighborhoods are developing. The message advocated was that making decisions based on information can lead to a stronger connection between what residents want and need and how local government invests in neighborhoods.

### Process and Solution

Solo Kota Kita combines a decentralized survey approach with simple technology to illustrate the assets and issues in each of Solo's neighborhoods. The process has four steps – 1) data collection, 2) mapping, 3) analysis, and 4) distribution.

Community facilitators were sent to collect data from the *Ketua RTs* (*Ketua RT* is the neighborhood managers of RTs, which are the smallest administrative unit in Solo). Each *Ketua RT* should have data about education, poverty, and other issues, which the facilitators collected using a questionnaire and interacted directly with around 2,700 of them. This direct interaction allows the team to cover a lot of area and gain on-the-ground knowledge of what's happening in the neighborhoods.



Picture 7: Solo Kota Kita Poster



**Picture 8: Citizens checking out the Mini Atlas of their district at the local district office**

For the 2012 update of the database, Solo Kota Kita developed a new SMS tool to streamline data collection. With this new tool, a neighborhood manager receives the questionnaire as text messages sent to his or her mobile phone. Data about the RTs is sent back through text messages and then compiled into an online information dashboard. This new SMS tool greatly reduces the time it takes to survey the *Ketua RT* and to maintain the database. Even so, the team took a variety of approaches to conduct the survey. In some cases, groups of *Ketua RTs* would meet at the neighborhood centre and enter the information on their mobile phones together. For *Ketua RTs* that did not own a mobile phone, the update was done on paper.



**Picture 9: SMS tool used for Survey**

Once the survey was completed, data were inputted into the Geographic Information Systems (GIS). GIS is a computer technology that takes tabular data and connects it to maps of the city. This enable viewing information about an area visually, for instance where poverty is high in Solo and where it is low.

The team then worked together to analyze how each neighborhood was developing. Data and maps were studied to understand how each neighborhood compares to the rest of the city and how each indicator is distributed within the neighborhood. To ensure that information are accurately captured,



analysis of qualitative information gathered by the community facilitators were also recorded in a mini atlas as they spend so much time in the field, they are aware of what residents perceive are assets and issues.

Upon completion, mini atlases were distributed to *Ketua RTs* or neighborhood leaders so they can use it in *musrenbang*. They are also posted in newspaper kiosks at community centers. Lastly, anyone can download a mini atlas from the Solo Kota Kita website.

### **Box 1. What is Musrenbang?**

The word *musrenbang* is an abbreviation of two words in Bahasa Indonesia. It combines *musyawarah* – “community discussion” – with *perencanaan pembangunan* – “development planning.” The origin of *musyawarah* is an Arabic word describing how neighbors come together to peacefully resolve conflicts and discuss community issues. *Musrenbang* therefore refers to the process of community discussion about local development needs.

*Musrenbang* is an annual process during which residents meet together to discuss the issues facing their communities and decide upon priorities for short-term improvements. Once a list of priorities is made, it is submitted to the local government-planning department, *Bappeda*, which will then assign resources to each neighborhood depending upon the available funds and according to need. The *musrenbang* meetings occur in the community centers in every neighborhood during January.

This participatory budgeting process makes it possible for residents to articulate their needs to local government. There are also *musrenbang* processes at the district and city levels as well as at provincial and national levels. *Musrenbang* is a bottom-up approach, which means resident voices can actively influence the city budget and how investments are made in neighborhoods.

In fact, the *musrenbang* process was introduced to replace Indonesia’s former centralized and top-down government system. Local communities and governments now have a greater responsibility to shape the future of their neighborhoods. Residents should participate because it is an opportunity to collectively decide the future and assure that government investment in neighborhoods meets community development needs.

## **Sustainability**

This initiative is considered sustainable, as it had been adopted legally in Mayor Regulation No. 15 Year 2011 on Directive and Technical Guidelines on Implementing *Musrenbang*. The regulation stated that *musrenbang* meetings should utilize Mini Atlases to facilitate discussion, and other poverty reduction policies have used the database and maps to focus on impoverished areas of the city.

Quoting the Mayor of Solo at that time, Joko Widodo:

*I think community data should be accessible not just to city government, but to residents, who also need to know what is going on in their RT and neighborhood. During musrenbang, people can use data to understand the real conditions in their neighborhoods. What they propose in musrenbang should be based on real needs and actual conditions – not just speculation. Information is absolutely important.*

(Taylor, 2012 - personal interview)

The Solo Kota Kita Team had also conducted five workshops with the local government and trained 70 of the facilitators who work with residents during the *musrenbang* to sustain capacity of the city administrators to undertake this approach even after the project is closed. Knowledge transferred in these trainings includes how-to for developing survey and spatial data analysis. In addition to

municipal government, the project had opened its doors to design students to actively participating in this initiative – from gathering data to making the drawings in the mini atlases.

## References

[www.solokotakita.org](http://www.solokotakita.org)

Further inquiries, please contact:

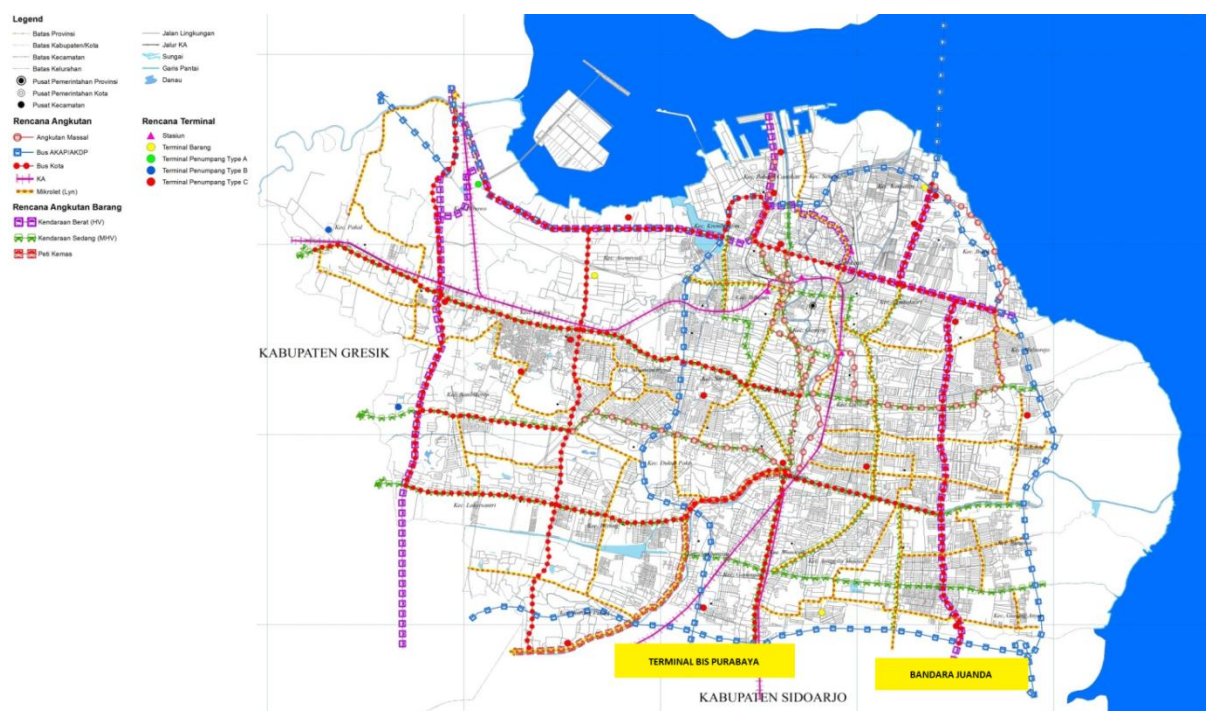
Rifai Ahmed ([rifai@solokotakita.org](mailto:rifai@solokotakita.org))



Picture 10: Map of Kauman District

## Surabaya – The Green Kampung Program, Sustainable Neighborhood Development and Community Building as Part of a Strategic Spatial Planning Policy

Surabaya is the second largest city in Indonesia with a population of over 3.1 million and a city area of 333 km<sup>2</sup>. As the capital of East Java province and as a port city supporting trade and services, Surabaya is now characterized by new medium-rise office blocks, modern markets and hotels along green boulevards co-existing with the early 20<sup>th</sup> century heritage. In addition, popular low-rise urban neighbourhoods are still dominating the cityscape and have helped preserving the humane scale of Surabaya. The low-income, popular neighbourhoods – the kampungs – are particularly important to preserve the indigenous socio-cultural values of the 577 year old city.



Picture 11: Surabaya Spatial Plan Map

Surabaya is an important economic centre for Indonesia. The urban hinterland of Surabaya (7m people) accommodates a large national and homegrown ‘mittelstand’ industrial conurbation, producing for the consumption markets of Java (150m+) and Indonesia (240m+). Java is an island with poor over land transport connections so far and Indonesia is an archipelagic country. Transit and services are essential functions of Surabaya city and have been competing with other needs, including the preservation of open and green space, and the endeavour of the city to maintain the indigenous kampungs.

Statutory land use planning of Surabaya city saw its first challenges in the 1980s, when simple zoning solutions aiming at opening up industrial areas within the city were accompanied with plans for the indiscriminate conversion of semi-rural areas and large mangrove areas into urban residential zones. Successive land use plan revisions oscillated, either trying to hold up a ‘modern’ city vision or going back to showing Surabaya’s de-facto urbanization, which mangroves already disappeared, the city rivers heavily polluted and the indigenous neighbourhoods remaining poor and underserved.

Attempts to improve low-income settlements actually took place since the Dutch pre-1942 administration. A Kampung Improvement Program (KIP) was introduced in 1923, to overcome



sanitation issues in settlements in close proximity to the European quarters. This incremental upgrading approach continued to be implemented intermittently up to the 1980's. A comprehensive citywide approach was never achieved and was neither credibly captured in conventional city development plans for trunk infrastructure.

## Process and Solution

Surabaya has been able to put a flagship Green Kampung programme at the heart of its innovative planning and development programme for the city. Moving from ad-hoc experimenting with environmental programmes collaborating with kampung communities, the city has put in place into a comprehensive green and clean kampung development programme. This programme has become a citywide strategy, supporting further planning and development. The strategy combines tools for governance and development planning which became available to Indonesian city administrations in the last 15 years: decentralization, local democracy, citywide planning, participatory planning, participatory budgeting and environmental management with stakeholders, including the private sector.

In 1999, Indonesia moved abruptly but compellingly to local authority empowerment. Elected mayors and councils have now genuine control over local budgets and programmes. After tremendous teething problems, a new generation of democratically elected leaders is re-inventing local governance and local planning, showing how to make it work to the benefit of people. Innovatively applying new, aspirational but untested national laws on comprehensive and participatory spatial planning and participatory budgeting, they are re-inventing city management relevant to local communities and the local economy. Community empowerment and citizen collaboration is hereby an essential tool to achieve a liveable and prosperous city, capable of increasing its economic potential.



Picture 12: Annual Green and Clean Competition



**Picture 13: Green Communities in Surabaya**  
(source: Rita Ernawati, ITS)

At the neighbourhood level, Surabaya encouraged communities to endeavour a zero-subsidy kampung greening approach. Solid waste is sorted, recycled and sold, or re-used. Revenues are used to pay for greening investments. Communities are encouraged to seek out small-scale development initiatives, e.g. to build low-cost gray water recycling infrastructure or small solid waste processing facilities. Tiny revenues are put into the cleaning up of streets and buying seedlings and flower pots. Successful communities also use revenues to pay for night watch capacity to enhance safety or even to pay school fees and other social needs. Organic waste is recycled as compost. The city saves on solid waste collection expenditures and returns funds through the employments of facilitators and occasional awards. Local companies and the media are sought to sponsor specific neighbourhoods and promote competitions and awards. National poverty reduction programmes are logged in to improve infrastructure and upgrade houses of extremely vulnerable and deprived people within the communities. Community budgeting through a map-based e-governance platform was introduced – a real novelty compared to the conventional approach of government officials collecting community priorities, as applied elsewhere in Indonesia.



**Picture 14: E-Government in Surabaya**

At the city level, Surabaya has introduced a citizen park space programme. Confronted with degraded river banks and left-over public space occupied by squatters, Surabaya worked with slum communities to re-locate and to turn idle space into prime and popular green community parks, each co-opted by local private companies and thus turning companies into sponsors of Surabaya as a city of liveable neighbourhoods. The main river is not yet clean, but the ownership of the riverbanks as a

urban public space and as the visible promise of a sustainable and smart Surabaya is now shared by ordinary communities and the private sector.



**Picture 15: Skate and BMX Park in Surabaya**

Furthermore, the city has started to move away from hard transportation planning serving mainly the port with elevated toll ways to a comprehensive mobility planning approach, creating a finer grid of roads connecting the city with the periphery and re-starting a tram network within the city. The city has not eliminated transport solutions serving low-income people well (pedicabs, small buses) seen as hindrance in many other cities. On the contrary, it is creating standards for people-friendly public space arrangements near tram stops, more pedestrian space and bicycle lanes. These solutions will feed into the new cycle of land use planning revisions.

## **Result and Impact**

The Surabaya City Government has set up Green Kampong Program in 2006 and has seen it take hold in 154 neighbourhoods. Its strategic planning policy to put liveable, compact and green neighbourhoods at the heart of sustainable urban development is on track. Surabaya has achieved already the following assets and capacities:

- Community based solid waste management, leading to revenue generation, employment and a measured decrease of disease
- A community based facilitator network of “environment cadres” (28,500 people at present) and “economic heroes”, supported by training and skills development workshops
- E-governance platform for map-based community budgeting (“e-musrenbang”)
- Local mass media and private sector collaboration in support of community mobilization green and safe public spaces
- A mobilized and informed city community in favour of longer term decision-making for sustainable urbanization of Surabaya and the surrounding region.

Surabaya city translates livability is translated as achieving a balance between a healthy living environment, equal access to public goods and services, and cultural preservation and revitalization. The existence of kampongs amidst dense new development provides a space for the informal sector to thrive and allow the lower-income society to remain at the heart of city.

*Source: Dercon, Bruno (2014) Case-study Surabaya (Indonesia) The Green Kampong Programme Sustainable Neighborhood Development and Community Building as Part of a Strategic Spatial*

*Planning Policy, submitted for the Expert Group – International Guidelines for Urban and Territorial Planning.*



## Community-based Settlement Rehabilitation and Reconstruction in Central Java and Yogyakarta Special Region

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On May 27, 2006, an earthquake damaged settlements in the Yogyakarta and Central Java provinces. As a response to these disasters, the Government of Indonesia and the World Bank have implemented a Community-based Settlement Rehabilitation and Reconstruction Project for the Central and Yogyakarta Special Region project, called “Rekompak” (hereinafter will be called Rekompak Yogya). The Rekompak Yogya was designed based on the experience and lessons learned from successful community-based settlement rehabilitation and reconstruction project that helped rebuild earthquake resistant houses and village infrastructure in post tsunami 2004 in Aceh (called Rekompak Aceh), which had been developed based on the community driven development (CDD) mechanisms evolved through the World Bank-financed Urban Poverty Project (UPP) particularly PNPM Urban III, and Kecamatan Development Project (KDP). The Rekompak Yogya provided block grants to rehabilitate and reconstruct about 15,000 earth-quake resistant housing units and to prepare Community Settlement Plans (CSPs) in about 265 villages.

The villages affected by the Merapi eruption have suffered from damages to housing as well as basic and economic infrastructure including access roads, water, sanitation, irrigation, and drainage, and community social-economic facilities. Water resources are affected by the eruption materials resulting in poor quality and quantity. Most houses and agricultural land are heavily destroyed, covered by ashes, sand, and gravel. Economic loss is high and households have suffered from loss of sources of income due to the damage to agricultural land, livestock, shops, home industries, and workshops. Until now, it is not known whether there are physical cultural resources in the project area that are affected by the eruption.

Some settlement areas were no longer habitable, difficult to recover, or would take a very long time to recover from the eruption materials. Some agricultural land may not be recovered in the near future due to acidic soil conditions and sandy. Clean up, rehabilitation and reconstruction of these infrastructures would improve the social, economic and environmental living conditions of the villagers but would involve significant efforts and costs.

The principle of “Building Back Better”, as opposed to restoring the damaged housing and infrastructure to the pre-disaster conditions will have important implications on the selection of subprojects and eventually on project financing. Furthermore, as the project is implemented in parallel and in synergy with other programs or activities, the project team identified elements of safeguarding that were already covered by other organizations and which were to be covered by the project itself.

The Rekompak Objective is to increase the ability of communities to restore adequate living conditions, by building seismic-resistant houses and organizing settlements. This is accomplished by increasing community capacity to:

- Construct seismic-resistant houses;
- Include disaster risk reduction in Community Settlement Plans (CSP), and
- Develop neighbourhood infrastructure in disaster affected areas based on CSP

The guiding principles of Rekompak are:

- Self-reliance and empowerment
- Inclusive decision making

### REKOMPAK acronym

REKO = Rehabilitasi dan  
Rekonstruksi  
M = Masyarakat dan  
P = Permukiman  
A = Berbasis  
K = Komunitas

Rekompak is community-  
based Rehabilitation and  
Reconstruction of  
Communities and Human  
Settlements

- Transparency and accountability
- Seismic-resistant quality construction
- Cultural appropriate solutions for local people
- Support local economic recovery
- Building disaster risk reduction into design and implementation
- Flexibility and adaptability

## Process



Figure 1 Discussion with community facilitated by the team



Figure 2 Example of site plan approved by the local community in Ds Karangkendal



**Figure 3 Designated housing area in Karangendal**



**Figure 4 House built with grants (BDR Rp 30 juta/rumah)**

## Challenges and Solutions

Several challenges and solutions during the implementation of Rekompak in post-disaster areas were identified as follows:

CHALLENGES	SOLUTIONS
Beneficiaries with inadequate knowledge of construction methods.	Provision of continuous and close supervision by well-trained field staff to ensure timely completion of houses of acceptable quality
Inadequate seismic-resistant structural quality.	Provision of trained technical facilitators in the field and implementation of a system for auditing construction quality.
Weak and improper financial management.	linking fund release to physical progress and effective complaint handling mechanisms.
Inaccurate targeting of beneficiaries.	Strict and transparent application of agreed upon criteria for selecting eligible beneficiaries.
Double dipping or one beneficiary claiming more	Closely involving the community and local



CHALLENGES	SOLUTIONS
than one house.	leaders in targeting of beneficiaries and in gathering facts to facilitate problem-solving and decision-making.
Escalating costs of materials and labor in large scale reconstruction.	Provision of core houses rather than complete houses.
Fewer women than men participated in Rekompak activities	Seek specific solutions that promote the participation of women
Houses with incomplete infrastructure and lack of access to services.	Ensure close coordination to avoid delays in provision of electricity and water facilities.

Source: Secretariat MDF Aceh Nias and JRF (2012)

### Lesson Learnt

Rekompak Yogya has key features in environmental and social safeguards that would be useful as lessons learned in the implementation of similar projects, among others:

- Disaster-affected communities can successfully take the lead in their own recovery. Rekompak as implemented in Indonesia created a platform for independent, self-sustaining communities. The Rekompak approach created strong ownership among the beneficiaries as well as a sense of pride in achievements.
- Close coordination among concerned stakeholders, including local government, is essential at all phases of planning and reconstruction. Good coordination with government and other agencies helped fill the gap, particularly for complementary basic infrastructure at the village level. It is necessary to link community level planning and infrastructure with local government planning processes to avoid duplication or gaps.
- Well-trained and skilled facilitators are essential for successful community-based reconstruction. There is a direct correlation between the quality of the facilitators and the quality of construction. An investment in facilitators is money well spent.
- Effective complaint handling systems are necessary for a successful community-based project. The process empowered community members and strengthened the demand for good and accountable service delivery at grassroots levels. The complaint handling mechanisms are credited with safeguarding transparency and accountability.
- Housing beneficiary selection criteria and verification must be consistently and strictly observed. To prevent conflict, communities must set and agree to the criteria for beneficiary inclusion.
- Providing core houses proved to be more effective and economical than providing homes complete with all finishes. This lesson learned in Aceh was applied in Java. Core houses are adequate to shelter and house people and they cost less, so it is possible to build more homes and help more people.
- Inclusive decision making leads to better and more equitable results. The positive impacts of efforts to give women, in particular, a stronger role in project processes are evident.
- Participatory monitoring processes were effective in monitoring progress of housing and community infrastructure and promoting accountability. Communities were involved in and monitored all stages of project implementation from supply of goods to bookkeeping records, expenditures, and reconstruction progress. Reports were publicly presented and included recommendations made for improved performance. These were acted on by beneficiaries and checked on by facilitators and the monitoring committee had to be transparent.
- Clear and transparent communication with all stakeholders enhanced partnerships and played an essential role in Rekompak's success. Good communications enabled Rekompak projects to promote good governance through enhanced transparency and accountability, while strengthening community participation and ownership of projects.

The Rekompak approach is a continuously evolving process. The basic model must be regularly adapted to suit local circumstances. Adjustments based on lessons learned were continually incorporated for improved performance.

## **Outcomes and Sustainability**

The Rekompak approach is flexible to adapt to local needs and contexts, such as helping communities rebuild traditional architecture that was a distinctive feature of the Kota Gede neighbourhood in Yogyakarta. Rekompak provided manuals to communities on preserving cultural architectural heritage.

Rekompak contributes to future local development through the cadre of skilled community workers it trained and employed as facilitators. The project was a training ground for facilitators to learn the Community Driven Development approach, appropriate construction techniques and productive interaction with communities. Some former Rekompak facilitators have become civil servants with a store of practical experience working with communities.

Rekompak invested in capacity strengthening at every level of government from local to national to ensure sustainability of achievements and proper maintenance of project assets. Rekompak teams worked with local government agencies such as the Provincial Disaster Management Agency (Badan Penanggulangan Bencana Daerah/BPBD), providing technical assistance, training and support for institutions tasked with disaster risk reduction and preparedness throughout project implementation. The community planning processes strengthened the capacity not just of communities, but also of local governments to engage in and support community-level planning.

At the national level, the Ministry of Public Works (now the Ministry of Public Works and Housing) has developed a model housing reconstruction program recognized nationally and internationally through its direct hands-on experience implementing Rekompak in Aceh, Java, and other locations across Indonesia.

The Government of Indonesia is widely recognized for its efficient and effective management of post-disaster reconstruction in Aceh, Nias, and Java, including the recovery of housing and community infrastructure. From the beginning, reconstruction support was strongly led by the Government of Indonesia and closely coordinated with local governments. The Government of Indonesia worked through line ministries to coordinate and implement the reconstruction program.

Rekompak's success demonstrated that community driven approaches can be successful in post-disaster and post-conflict situations. The project broke new ground: it took significant risks where huge stakes were involved. Rekompak worked through government systems using a community-driven approach and entrusted large sums of money into community hands during difficult times, and, in the case of Aceh, in a high-profile and politically charged situation.

Despite many challenges, Rekompak developed a successful model in Aceh that the Government of Indonesia adopted and replicated in two other post-disaster situations. Rekompak proved that a community-based approach is a robust model that can be applied to different disasters and different contexts. It also showed what partnerships can achieve: the Government of Indonesia, local governments, donors, the World Bank, implementing partners and communities all worked together to ensure Rekompak's success.

Community involvement in ensuring the appropriate use of funds and resolution of any funding issues led to a level of transparency that is not easy to achieve with external monitoring. By being involved in every step of the reconstruction, beneficiaries transformed immense personal loss into positive and constructive efforts to rebuild their communities.

Village planning processes strengthened through Rekompak not only benefitted the project's implementation, but also contributed to longer-term development planning and helped create more resilient communities, less vulnerable to future disasters. Rekompak's Community Settlement Planning process is being mainstreamed into Indonesia's national program for disaster

preparedness. The National Program for Community Empowerment (Program Nasional Pemberdayaan Masyarakat Mandiri, or PNPM) is the Government of Indonesia's premier program for poverty reduction. It is the Government's intention to integrate all community-based programs under PNPM with a unified integrated community planning and decision making process. This will be well suited for assisting communities with special needs such as post-disaster recovery. The Government established the Indonesia Multi-Donor Fund Facility for Disaster Recovery (IMDFF-DR) in 2011, a standing fund for disaster prevention and response activities, so that funds can be available for more rapid start up when disasters strike.

The experiences gained through using the Rekompak approach in Indonesia have generated many lessons that can benefit other post-disaster or postconflict operations for the recovery of housing and community settlements in Indonesia and globally. Widely regarded as one of the most successful post-disaster housing and settlement reconstruction projects in the world, Rekompak provides models for best practices and lessons learned.

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## Self-Help Housing in Cilacap, East Lombok, and Yogyakarta

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### Cilacap Regency, Central Java

Cilacap is a regency with population over 1.6 million and covers an area of over 2000 km<sup>2</sup>. In 2013, it reportedly has over 140,000 inadequate housing (*rumah tak layak huni- RTLH*), which stipulates 30 percent of the entire housing population in the regent. To address this, the current Regent (*Bupati*), Tatto S. Pamudji, amongst other measures, accessed a facility provided by the Ministerial of Public Housing (now merged with Ministry of Public Works) titled Stimulus for Self-Help Housing (*Bantuan Stimulan Perumahan Swadaya – BSPS*) [see box 1 for diagram of BSPS work structure]. The facility is intended for poor and low-income families who wish to build or rehabilitate their houses. In this program, a financial aid ranging from IDR6 million – IDR11 million (around USD\$600 - USD\$1100) will be given per households to purchase housing materials for construction or rehabilitation their housing condition. The program design took note that the aid amount is far from sufficient to cover total cost of housing construction or rehabilitation, thus the aid serves as stimulus for the households to improve their houses incrementally, as well as to encourage voluntary cooperation within the neighbourhood (*gotong royong*) to fix their settlements.

The Cilacap regency had managed to access the facility twice since the the program was kick started in 2006 (previously under a different title – BSP2S and PKPK).

### Kecamatan Pringgabaya, East Lombok Regency

East Lombok is regency that populates over 1 million people over an area of around 2000 km<sup>2</sup>. In 2013, there was a total of 57,000 inadequate houses identified across its 20 sub-districts. Most of these inadequate houses are stilt houses that are located in the coastal areas, inhabited by fishermen. Like Cilacap regency, the East Lombok regency government accessed BSPS program as one of its measures to address the condition. Majority of work to be done was to fix roof, walls and floors of these houses.

Recipients of the stimulus in East Lombok were three villages, with a total of 867 housing units. One village in the regency had attracted spotlight with its commendable implementation, which was in Kampong Ampan Balak in North Pringgabaya village. The community was able to improve their houses using the relatively small aid as a stimulus. Implementation in this village was successful as it managed to cultivate *gotong royong* sense amongst the community members.

### Kalijawi Association (Paguyuban), City of Yogyakarta

Yogyakarta accommodates around 400 hectare of slum areas. In 2014, a total of 3,343 units of inadequate houses were identified, including dilapidated and congested dwellings in the river basins of Gajah Wong and Winongo. Settlers in the area are living side by side with hazardous risks of being swept away by flood of flooding and direct access to debris carried by the river in the likely event of volcanic eruption.

Yogyakarta's Community Architect (ArkomJogja), an NGO that focus on the poor's rights for housing, had initiated assistance to the dwellers at the Gajah Wong and Winongo river basins. The dwellers were organized into an association (*paguyuban*) titled *Kalijawi*. The *paguyuban* became the main actor in ArkomJogja's community-driven slum upgrading program. The objective of the program is to improve living condition by the riverbasins.

## Process and Results Achieved

### Cilacap

The regency received BSPS in 2009 and 2010 to aid a total of 2443 housing units. It also proactively sought other financial source from the province, within the regency including reaching out to the civil society (community, NGOs and private sectors). This initiative was based on the following principles:

- As mandated by the Regional Autonomy Law, housing provision is the responsibility of the regency;
- Central government through its relevant ministries is the coordinating partner, particularly in channeling available housing facility that can be accessed by the regency;
- There is a strong commitment from the regency to support the objectives of the central government's housing facilities programs – this must be indicated by availability of counterpart funding from the regency;
- Counterpart funding from the regency is sourced from the provincial and regency budget (APBD), corporate social responsibility (CSR) fund from private sectors, communities, and any entities – as long as it is not conflicting with the existing regulation;
- To secure implementation, all parties' commitment must be reflected in a Memorandum of Understanding (MOU)

Key factors that are responsible in accelerating success of self-help housing provision in Cilacap are:

- Enactment of Regent Regulation No.76 Year 2012 on Implementing Guidelines for 'Proud to Build Our Village' (*Bangga Membangun Desa*) program, which also adhered to the Central Java's Governor's Program "Return to Village to Build Our Village". The regency's initiative is accommodated under the environmental component of this provincial-level program (other three pillars are education, health, and economy)
- The Regent had successfully engaged numerous institutions from the central to local level to support the initiative. It included state-owned enterprises (BUMN), private enterprises, Donation Board (*Lembaga Amil Zakat*), community and so forth. Being in the driver seat, the regency government had led these institutions through all stages: data collection, plan formulation and implementation.
- Willingness to declare commitments formally, including by signing Commitment Note for counterpart funding in the light of receiving the BPS facility from Ministry of Public Housing.

Aside from the BPS, the regency government of Cilacap demonstrated its commitment to provide adequate housing through grants from APBD in 2011 and 2012 for rural housing improvement, plastering rural housing units in 2012, channeling CSE from several companies, such as PT Holcim, PT Pelindo, PLTU and PT Pertamina; and Surplus Fund from PNPM Mandiri Pedesaan.

**House Plastering in Rural Areas with APBD fund**



**Kondisi 0%**



**Kondisi 30%**



**Kondisi 100%**

### **Kecamatan Pringgabaya, East Lombok Regency**

The implementation of the BPS in North Pringgabaya village is considered good practice as it managed to stimulate community to improve their housing condition with cost that is significantly higher than the aid itself. Another positive result is the increased *gotong royong* value within community, which was further fostered by the frequent interaction during data collection and construction phase.

The key success factor in North Pringgabaya village were:



- Solid coordination between the regency housing unit, community facilitators (TPM) and the recruited consultants for the data collection. The data collection for BSPS was neatly organized, making it easy to monitor progress work of the construction or rehabilitation
- Stimulus recipient were backboned by the community leaders (mainly Islamic teacher – *ustadz* or *tuan guru*). The *ustadz/Tuan Guru* (Syahril Hijayadi) assisted in the regency government in socializing the benefit of BSPS and the underlying principle of *gotong royong* to make use of this stimulus optimally. *Tuan Guru* Syahril communicated to the aid recipients that the money is only stimulus and it is the responsibility of the community to procure the rest of the source and cover the remaining cost. By emphasizing that it is a shared responsibility, housing works were done collaboratively by the community members by donating materials or labor support.
- Gotong royong value in Kampung Ampan Balak as an existing social capital. Works were done concerted to one house at a time, resulting to relatively quick duration to complete -7 to 8 days per houses. Another unique feature of house work in this kampung is the custom to relocate the stilt house several metres from the location so that the inhabitants of the house can still live in it whiles works were done simultaneously.



**Kondisi 0%**  
Atap : Seng Rapuh, Lantai : Bambu,  
Dinding : Gedeg Bambu



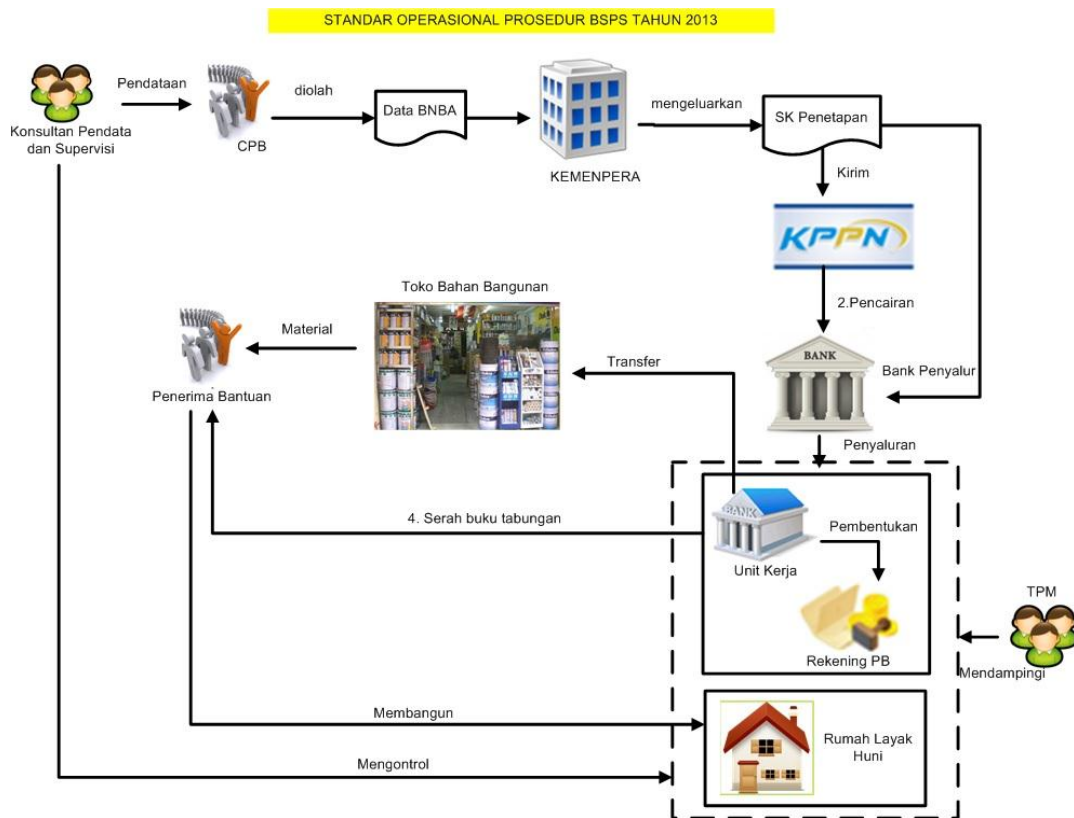
**Kondisi 100%**  
Atap : Seng, Lantai : Rabat beton,  
Dinding : Batako



**Syahril Hijayadi, Tuan Guru  
di Kampung Ampan Belak**



**Gotong Royong Memindahkan Rumah**



### Kalijawi Association (Paguyuban), City of Yogyakarta

Steps in the ArkomJogja's program designs are: i) identifying slums location; ii) establish an organization within the community; iii) open access for the organization to network so that it becomes a solid community organization; and iv) introduce creative collaboration as means to improve the settlements, which includes using cheap yet solid alternative construction methods (like using bamboo) and setting up two modes of community-based savings.

The first mode of saving is *arisan*, a traditional custom of rotating saving within one group of people (in this featured practice, the group comprise of ten people). Drawn by lots, each member takes turn in collecting the fund savings, which will then be used by the fund holder to renovate their house. With this approach, every household have the same chance to improve its condition to meet health standards. The rest of the members are also obliged to support the renovation works on the fund holder's house, knowing that they will be benefited from these support when it is their turn.

The second mode is house renovation savings. The initial stage is to conduct community planning, in which houses that need renovating were identified. Assisted by the ArkomJogja, scaled drawing was made and translated into budgeting plan. Involved in this process was also students volunteers from the local university.

In addition to the aforementioned savings, the *paguyuban* also managed trust fund from the community to build community hall that can be used collectively.





**Suasana Diskusi Bersama Warga di Bantaran Sungai Winongo**



**Proses Pelaksanaan Renovasi Rumah Warga Bantaran Sungai Gadjahwong dan Winongo melalui Paguyuban Kalijawi**

## Tegal – Computerized System for Basic Health Service at a Puskesmas IT Basis Health Service Program

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Administratively, City of Tegal borders to Brebes Regency and Tegal regency. On the north, it borders with Java Ocean; on the east with Tegal Regency; on the south with Tegal Regency; and on the west with Brebes Regency. This city is divided into 4 sub districts which are West Tegal, East Tegal, South Tegal and Margadana, and 27 wards. West Tegal Sub District has the largest area, spreads about 15.13 km<sup>2</sup>, followed by Margadana Sub District with about 11.76 km<sup>2</sup>, South Tegal Sub District with about 6.34 km<sup>2</sup> and East Tegal Sub District with about 6.36 km<sup>2</sup>.

Based on Tegal in statistics in 2007, the population was 245,728 inhabitants with a density about 6,193 per km<sup>2</sup>. The most populated area was East Tegal with 73,641 inhabitants and density of 11,579 per km<sup>2</sup>. While the lowest is Margadana Sub District with 51,828 inhabitants and a density of 4.407 per km<sup>2</sup>.

Trade and services were the main sector for Tegal's local economy. This city had become the final manufacturing and market place for various products in the western part of Central Java region. Small and medium enterprises that reached significant improvement were home industries for metal located at Cempaka Street region and Batik Tegal handicraft at Kalinyamat Ward. To support the economy, City Government of Tegal built The Centre for Promotion and Business Information (*Pusat Promosi dan Informasi Bisnis*/PPIB). In the health sector, City Government of Tegal provided 1 hospital, KARDINAH Hospital, 8 puskesmas (health center), 21 supporting puskesmas, 1 Lungs Treatment Hall, 1 Environmental Health Laboratory, and also several health services in coordination with private sectors.

### Process and Solution

#### Situation Prior to The Initiative

Basic health service of puskesmas (*Pusat Kesehatan Masyarakat*/People Puskesmas at sub district level) in Tegal faced several obstacles, among other the queue was too long, spreading rate of disease was high due to the long queue, too many administration jobs to tackle, puskesmas did not have enough space to keep the patients' files, patients kept losing their medical cards, people's perception about health service in puskesmas to be a low class service, and only poor people go there.

#### The Initiative

City Government of Tegal made changes toward the mechanism of basic health services, starting from shifting the manual system into an electronic integrated system, known as Puskesmas Management Information System (*Sistem Informasi Manajemen Puskesmas/Simpus*). Simpus had improved the services in puskesmas, where all the services were done electronically. Patients registered themselves with ID and *barcode scanner*, medical prescription claims would use PIN and be printed out automatically in the pharmacy. Same thing goes with the queue and all patients in polyclinic at the waiting room. For the first two years of the program, one puskesmas located in Margadana received guidance from Korea due to its status as a pilot project. This program was in coordination with KOICA (*Korea International Cooperation Agency*) from the Republic of Korea. The other 7 (seven) puskesmas and supporting puskesmas, they received full support from City Government of Tegal through Health Agency.



Gambar 1: Margadana Puskesmas

## Strategy Implemented

City Government of Tegal in particular the Health Agency, had done several measures to make this program works, which were:

Formulating Phase:

- To identify the program through problem analysis. The problem was the result from internal audit in Margadana Puskesmas, also based on inputs and complaints from the public related to the long queue prior to receiving services.
- Decision making process would be managed by Puskesmas Quality Team and KOICA, Health Agency of Tegal City, and later reported to the Mayor of Tegal.
- Findings from research team made into a proposal and action plan.

No	Nama Pasien	Nama Kk	Umur	Pekerjaan	Jenis Kelamin	Pendidikan	Status	Medical History
1	DAESAH	DAESAH	42,70% (10/01/1970)	Margadana	2	Umum	JANGKA	Medical History
2	CABRI	CABRI	39,60% (08/01/1973)	Margadana	2	Umum	JANGKA	Medical History
3	KARISTI	SUKARNO	51,10% (24/01/1961)	Margadana	10	Umum	JANGKA	Medical History
4	KANDARAH	KANDARAH	45,70% (08/01/1966)	Margadana	10	Jangkasmas	UMUM	Medical History
5	MUTMAZINAH	KISWORO	49,60% (11/01/1963)	Margadana	10	Umum	UMUM	Medical History
6	KARIDAH	KARIDAH	53,70% (26/01/1959)	Margadana	10	Umum	UMUM	Medical History
7	CABRI	KASAN	50,00% (20/01/1962)	Margadana	10	Jangkasmas	UMUM	Medical History
8	REZI SETIAWAN	KISWORO	50,00% (20/01/1962)	Margadana	10	Umum	UMUM	Medical History

Gambar 2: Queue Monitor Service

Implementation Phase:

- City Government of Tegal through Margadana Puskesmas – Health Agency of Tegal and *Korea Junior Expert* (KJE) have arranged budget plan needed and made proposal.
- Proposal was presented by the Head of Margadana Puskesmas as the representative of City Government of Tegal before the management of the KOICA in Jakarta.
- Checking on the field (survey) by management of KOICA at Margadana Puskesmas.
- *Korea Junior Expert* (KJE) and management of KOICA held a meeting to give an approval for proposals from City Government of Tegal.
- Prepared the hardware needed with the consultant who was appointed by KOICA.
- Prepared the software (in cooperation between puskesmas and KOICA).
- Operational fund would be provided by City Government of Tegal, through the Health Agency fund or any other sources.

Policies from the Mayor of Tegal:

- Establishment of acceleration team of SIMPUS, instructor team and monitoring team by the Head of Health Agency to ensure that all puskesmas utilized the electronic-based system.
- The Mayor of Tegal Instruction regarding *e-government* to strengthen the program implementation.

The tasks of the acceleration team of Health Agency of Tegal City. The acceleration team task to implement the electronic-based Management Information System at puskesmas and Health Agency of Tegal City in 2012 were as follows:

- To prepare the tools and infrastructure.
- To prepare the human resources to be in charge in operating the system at puskesmas and the Health Agency.
- To ensure the sustainability of the system.
- To coordinate with monitoring team to solve the problems raised.
- To report the implementation of the program regularly and hand it to the Head of Health Agency.

Instructor team was responsible to teach the followings:

- The importance of the electronic system in basic health services.
- The commitment of the organization on the resistance to change.
- The quality system related to Medical Record Document.
- The implementation of SIMPUS and the reports.
- EMR (Electronic Medical Record) of the General Polyclinic.
- EMR (Electronic Medical Record) of the Dentistry Polyclinic.
- EMR (Electronic Medical Record) of the Mothers-children and Family Planning Clinic.
- EMR (Electronic Medical Record) of the pharmacy.
- EMR (Electronic Medical Record) of the laboratory.
- EMR (Electronic Medical Record) of the children polyclinic.
- EMR (Electronic Medical Record) of the elderly polyclinic.
- Financial report.
- Treatment for EMR (Electronic Medical Record) infrastructure.

The monitoring team was responsible to:

- Monitor the progress of the program and to keep inventory of the problems arise.
- Coordinate with the implementation team to handle the problems arise.
- Arrange program progressing report regularly and hand it to the Head of Health Agency of Tegal.

The parties involved in this program as an agent or partner were:

- Margadana Puskesmas and other 7 puskesmas in Tegal.
- KOICA, Republic of Korea, provided the initial budget, helped to direct the program, to ensure that it would run in accordance with global/international standards.
- Health Agency acted as supervisor and program monitoring.
- *Bappeda*, as advisor and to monitor and evaluate the cooperation with *Sampan (Sapta Mitra Pantura)* in relation with activities of the Republic of Korea's KOICA (*Korea International Cooperation Agency*).
- *Sampan (Sapta Mitra Pantura)* initiated KOICA's (*Korea International Cooperation Agency*) arrival to Tegal as well as monitoring the whole activity. *Sampan* was a cooperation among 7 city-district governments located in North Shore of Java.
- Activity coordination among SKPDs under the control of the Secretary of the Tegal City Government.
- The skills needed to implement the program was one programmer for each operating unit.

Funding Scheme:

During the initial phase, Margadana Puskesmas acted as a pilot project. This program was in coordination with KJE/KOICA (*Korea International Cooperation Agency*) whom also provided the fund that the system needs, only for 2 (two) years, while the operational and development funding of other puskesmas were funded by City Government of Tegal, in which cost about Rp. 700 millions.

The obstacle during implementation of the program among others:

- There was no puskesmas in Indonesia using computerized system before, so there was no example for reference/corporation at the beginning of the program implementation in 2008.
- The length of bureaucracy process of the patient to get a health service.
- Still many paramedics who were unfamiliar with computer.

The efforts to face the obstacles as follows:

- Created the flow system (*Application Architecture*) which is usually used in puskesmas.
- Designed a flow chart or application system flow which will be used in puskesmas.
- The acceleration team of the SIMPUS formation of Tegal of Health Agency, in cooperation with IT consultant, gathered and translated the language commonly used in manual reports of puskesmas into computer language.
- The instructor team gave a training for computerized system to all medical staff, paramedic and all puskesmas crews.
- The monitoring team did the monitoring and evaluation of the SIMPUS development.

## Result and Impact

The utilization of electronic-based management information system program in improving health services in Tegal City had shown changes from pre-initiative conditions:

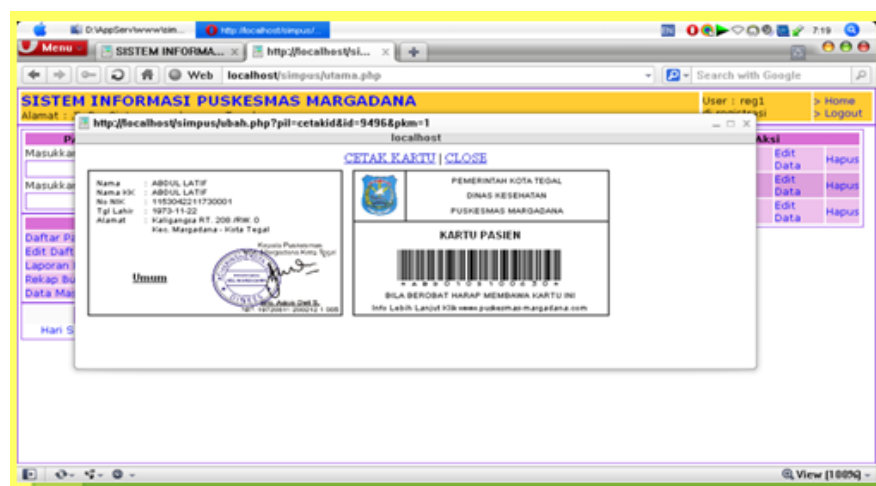
- For example of SIMPUS implementation, previously the patient took 5 (five) minutes to register, and now for old patient only took 5 (five) seconds for and 3 (three) minutes for a new patient. Patients were able to know their number in queue system in each service unit through the monitor placed in the waiting room. The speed of the service and data accuracy had increased, that made the time efficiency and performance also increased.
- A utilization of barcode scanner in patient cards had sped up the service process at the registration. It was very easy for the medical staff and paramedics to use it. They only need to “click” the examination item available on the SIMPUS electronic form, including the disease codes set in the *InternationalCode Diagnostic/ICD X* (based on ISO Internal Audit Report of Margadana Puskesmas, Tegal, 2011).



Gambar 3: Barcode Scanner on the Patient Card



- The easiness to find patient's medical record.
- A utilization the SIMPUS in Tegal puskesmas would set an example and be adopted by the Minister of Health as the basic IT-driven health services.
- MoU No.PL.03.01/1/92739/12 between the Directorate General of Healthy Life Guidance (*Direktorat Jenderal Bina Upaya Kesehatan*) of the Ministry of Health with the Health Agency of Tegal City regarding to the National Development of SIMPUS Software Application was made in Tegal.
- The advantage of Tegal City SIMPUS was that the data related to patients, monthly report, or diseases were easy to find. The data was able to be printed out as needed, or be analyzed due to its simple design, automatic warning, web base platform, SMS gateway, barcode system, support system to monitor the queue, and electronic prescription. It also had medical record feature: Full ICD X, editable data on the examination date and the previous day, warning and locked system for patients with allergy to certain medicines, warning and locked system for expired medicines, and locked system when the medicine had run out.
- Base on the calculation of the People Satisfaction Index (*Indeks Kepuasan Masyarakat/IKM*) at the puskesmas in Tegal in 2012, the rate ranged between 76,76 – 88,75 (good and very good category), due to the speed and the carefulness of the services at all puskesmas in Tegal, categorized in average as good and very good (90-97%). The best result based on the 2012 IKM was in Margadana Puskesmas, and that was because this puskesmas had the first opportunity to use the Simpus (in 2008).



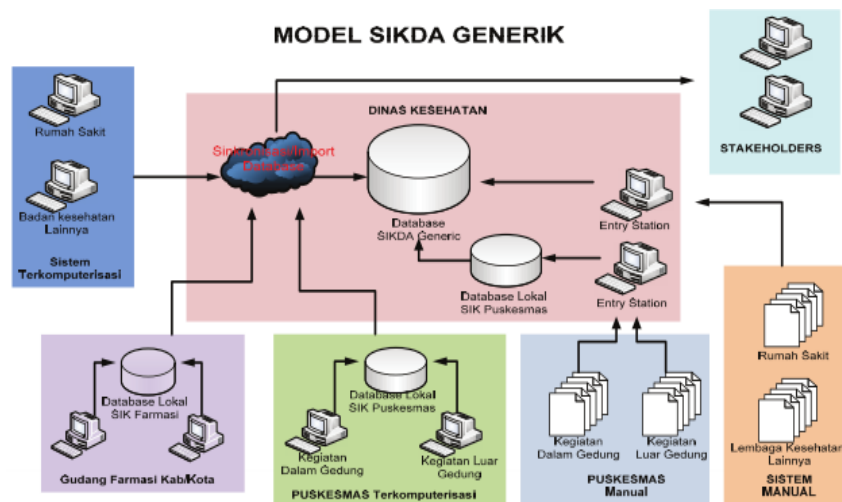
Gambar 4: Patient Registration

- The service standard had been accredited in accordance with ISO 9001: 2008 (December 16, 2009) on the inter-unit reference, the use of 6-capsules birth control, and services for elderly.
- The speed of the service due to the simple flow and the increasing data accuracy, resulting in the increasing efficiency and effectiveness of performance.
- People did not have to spend too much time at the puskesmas and can continue their work or other activities after having their health checked.
- Received the award of *Citra Pelayanan Prima Unit Pelayanan Publik terbaik Nasional* (The Best Image for Prime Services Nationwide) in 2010 from the President of the Republic of Indonesia, to Margadana Puskemas, and the Head of Margadana Puskesmas was chosen as The Best Medical Staff Nationwide in 2011.



**Gambar 5: Handing the Trophy**  
**"Citra Pelayanan Prima National Best Public Service 2010" by Vice President**

- At the moment there were 8 (eight) puskesmas in Tegal that used the electronic-based SIMPUS, started by the Margadana Puskesmas in 2009.



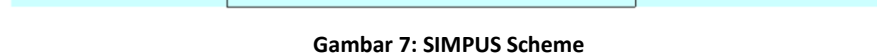
**Gambar 6: Data Itergration Scheme**

## Sustainability

The electronic management information system program (*Program Sistem Informasi Manajemen/Simpus*), could be sustainable because the scheme can also be applied in other service units besides health. This program was also easy to learn and had a simple design. There would be further enhancement for SIMPUS in Tegal when all the puskesmas could start to apply it, so that each puskesmas would be able to send data electronically to Health Agency of Tegal City, which called *SIMDINKES (Sistem Informasi Manajemen Dinas Kesehatan/Health Agency Management Information System)*. All data from the puskesmas in Tegal will be integrated with Health Agency of Tegal City.

Data sending from puskesmas to Health Agency would be done by email, Health Agency website, network tower, and USB. Later, *SIMDINKES* would process the aggregated data from puskesmas, recap the incoming data automatically, and show the data in real time. Hopefully, establishment of *SIMDINKES* could achieve efficiency on time, power and thoughts due to data integration. All the report from the puskesmas would use the same format and the most updated one, be kept in Excel,





**T1**                    **1**

and easy access could be enjoyed by doctors, paramedics, as well as the society as the client. Electronic-based services could be created without fear of spending huge budget, because with coordination, cooperation, willingness, and ability to learn new things, it would just come true. Not all medical staff has to have computer or IT background. Technology could be learnt and adjusted to human's needs.

### Transferability

The electronic based management information system program (*Program Sistem Informasi Manajemen Puskesmas/SIMPUS*) could be operated by other units outside health and also by other puskesmas in other cities, because of:

- The design was simple, the operational and application was easy to learn. Initially, not all the paramedics at Margadana Puskesmas had computer background and understood how to use it, but eventually everybody could operate it based on the system applied to give the best health service in Tegal.
- The support from the City Government of Tegal, Health Agency and the commitment of puskesmas to apply the best electronic based service.

The city representatives who had visited Tegal were Pemalang Regency, Yogyakarta City, Tegal Regency, Batang Regency, Banjarnegara Regency, and Pekalongan Regency.

### Contacts

#### **Drs. Yunianto Dwisutono**

Head of Taman Pintar Development  
Yogyakarta City  
Jl. Panembahan Senopati 1-3 Yogyakarta  
Phone 0274 583 631 Fax. 0274 583664

#### **Afia Rosdiana, M.Pd**

Head of Marketing and Public Relation of Taman Pintar  
Yogyakarta City  
Email: [afi@tamanpintar.com](mailto:afi@tamanpintar.com)

#### **Tri Utari**

Manager of Advocacy of APEKSI  
Rasuna Office Park III 3<sup>rd</sup> Floor Unit WO. 06-09  
Rasuna Epicentrum Complex  
Jl. Taman Rasuna Selatan, Jakarta Selatan 12960  
Phone 021 83704703 Fax. 021 83704733  
Email: [triutari@apeksi.or.id](mailto:triutari@apeksi.or.id)

#### *Source:*



Asosiasi Pemerintah Kota Seluruh Indonesia (APEKSI)  
(<http://www.apeksi.or.id>)

“Computerized System for Basic Health Service at a Puskesmas IT Basis Health Service Program in Tegal City”  
Best Practice 8th Edition, 2015

## Semarang – Proactive Action of Semarang City, Building City Resilience in Facing the Impact of Climate Change

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Semarang City is located in between 6°50' • 7°10' South Latitude and 109°35' • 110°50' East Longitude. The administrative boundaries of Semarang City are Kendal District in the west part, Demak District in the east part, Semarang District in the south part and Java Sea in the north part with the length of the coast line 13,6 km. The height of Semarang City is between 0,75 to 348,00 above sea level.

Administratively, Semarang City divided into 16 sub-districts, and 177 wards. The total area of Semarang City is 373,70 km<sup>2</sup>. It made up of 39,56 Km<sup>2</sup> (10,59 %) rice fields and 334,14 (89,41%) non rice fields. Based on its utilization, the largest rice fields is rainfed (53,12 %), and only around 19,97% of it that can be planted twice.

Semarang City has geostrategic position since it is located in economic traffic lane in Java Island and a development corridor of Central Java which consist of four gate knots: North Coast corridor, South corridor towards the dynamic cities such as Magelang and Surakarta District (also known as MerapiMerbabu corridor). East corridor towards Demak/Grobogan District, and West corridor towards Kendal District.

In the development of Central Java, Semarang plays an important role- especially with its ports, ground transport (railway lines and streets), as well as air transport which is a great potential to Central Java regional transportation knot and transit city. Moreover, Central Java also plays important role in the relationship with areas outside Java since it directly become the centre of the national territory



Picture 16: Semarang Map

### Process and Solution

#### Situation Before the Initiative

Semarang City frequently suffered natural disaster such as flood, drought, tornado, abrasion and dengue fever disease. Previously unrecognized, those disasters are linked to climate change phenomenon. Frequency and intensity of disaster are getting bigger in the last 10 years and predicted will be worst in the future.



**Picture 17: Rob in Semarang**

The city government has not yet recognized the influence of climate change phenomenon and its impact to the city system, therefore the government has not consider the climate change phenomenon in the development planning. Since the city government and the stakeholders do not have enough information about climate change, then the development, population and urban system tend to have higher risk of the climate change. Without serious management and consideration on climate change, the disasters related to climate will be hard to be solved and worsened the existing urban problems.

### **Initiative**

In order to solve the problems mentioned above, the Semarang City Government has carried out proactive initiative to open the opportunities of cooperation with many institutions to build network, to get funding, and to implement city resilience programs/projects related to climate change impact. Since 2009, Semarang City Government has joined ACCCRN (Asian Cities Climate Change Resilience Network) program that was facilitated by Mercy Corps and supported by Rockefeller Foundation.

In the program, Semarang City Government conducted participatory proses to face the climate change impact. The city government has also started to integrate the climate change issues in the city planning document, based on those two documents. To support the program, Semarang City Government has facilitated coordination, assistance fund as well as the follow up activities.



**Picture 18: Waves Retainer to Handle Abrasion on the Beach**

### **Strategy Implemented**

To start proactive action in managing climate change impact, the city government build a Coordination Team on Climate Change Resilience of Semarang or a working group to carry out participatory process to plan, manage and execute all activities on climate change framework. Legalized by the mayor's decree in early 2010, the working group works together with CCRPM SEAP (Centre of Climate Risk and Opportunity Management in South East Asia - Pacific), IPB (Bogor Institute of Agriculture) and URDI (Urban and Regional Development Institute) to set study on city susceptibility which consists city susceptibility, risk, and government system analysis. Semarang city

team which consist of several component such as SKPD (unit of local government), academicians and NGO, also carry out sectoral study and run several pilot projects in areas affected by climate change.

Results of these sectoral study, pilot project, and city vulnerability study are then followed up by the city government by reviewing all city planning documents, such as the Local Middle Development Plan (*RPJMD, Rencana Pembangunan Jangka Menengah Daerah*), Drainage Master Plan, Coastal Master Plan, national planning document, and many more. Then, the prioritized sectors are agreed and strategies in all sectors are integrated with RPJMD. Strategies of all prioritized sectors are not only carried out in RPJMD, but also proposed to get funding and establish cooperation for its implementation.

Strategy to build Semarang City resilience encompasses:

- a. Preparation of Strategic Document;
- b. Pilot Project and Sectoral Study (2010);
- c. Collaboration with relevant stakeholders to support climate change action;
- d. Integrate and synchronize climate change issues with the effort to build resilience and the implementation of action based on City Strategic Resilience;
- e. Monitoring and evaluation.

Actions to build the climate change resilience that has been done since 2009, encompass:

- a. Preparation of Strategic Document

Formulation of Susceptibility Assessment and Resilience Strategy of Semarang City through ACCCRN program, in collaboration with Mercy Corps, URDI, CCROM, SEAP, IPB, and ISET has been carried out in 2010.

- b. Pilot Project and Sectoral Study (2010)

Pilot Project encompasses:

- Adaptation efforts by people in TapakTugurejo Coastal Area as form of climate change resilience through development activities such as: build a 180 meters the wave breaker (*APO, alat pemecah ombak*) to save the fishpond, plant 20000 mangrove, enhance the capacity of people's groups, facilitate the establishment of The Mangrove Working Group of Semarang City in collaboration with Bintari Foundation, Mercy Corps, and Japan's Friends of The Earth.
- Renovation loan pilot project on community-based sanitation at urban level, Kemijen Ward, by running activities in the form of toilet renovation credit and Drinking Water Local Company (*PDAM, Perusahaan Daerah Air Minum*) instalation to 26 women household heads (widow) with 20 months installment, in collaboration with Mercy Corps, PerkumpulanPerdikan and BKM Kemijen.
- Adaptation to tornado disaster and landslide in Tandang Ward by activities like preparing document on Local Adaptation Action Plan and planting vetiver grass as landslide benders, in collaboration with Mercy Corps dan P5 UNDIP (Centre for Participatory Planning, Diponegoro University).
- Formulating model of land arrangement to minimize disaster in Sukorejo Ward, GunungPati collaborate with Mercy Corps and LP2M UNNES (Institute of Research and Community Service, Semarang State University) by carry out greening, terracing, building catchment wells and biopori wells in 3 Community Associations [*RW, RukunWarga*] that consists of 18 Neighbourhood Associations (*RT, RukunTetangga*) in Sukorejo Ward, Gunungpati. In principle, the model is aimed to reduce the drought and landslide in the area.

Sectoral Study that has carried out, such as:

- Study on abrasion effects on the life of fishpond fishermen in Tugurejo Ward and the handling effort, in collaboration with LMB Unika Soegijapranata;
- Annual evaluating studies on economic impact of flooding in the Kemijen Ward, Semarang City, in cooperation with Centre for Technology Services and Research, Diponegoro University;
- Assessment study on Semarang City Drainage Masterplan to climate change in cooperation with Centre for Technology Services and Research, Diponegoro University.

c. Establishing cooperation with related parties

- In collaboration with many groups to conduct study to enhance information on climate change impact, such as land subsidence, in cooperation with Georisk- Project (BadanGeologi, BGR, and GTZ) with Local Development Planning Agency (Bappeda), Semarang City;
- Proactive to obtain funding opportunity and capacity building in order to develop resilience on climate change impact, for example CDIA, PAKLIM-GIZ, ACCCRN, KOICA, and many more;
- The involvement of city team in many network, both in national or international networking, such as Bellagio Network, ACCCRN, ICLEI Regional Executive Committee South East Asia, Green Cities - P2KH, CDIA, and many more.

d. Integration and synchronization of climate change issues and the effort to build resilience and action implementation based on City Resilience Strategy, encompass:

- The development of ecotourism as alternative livelihood of coastal society and educative conservation;
- Greening, biopori and catchment wells, as well as rain harvesting, in many areas in Semarang City;
- Development of Jatibarang Reservoir (underway until 2014);
- Development of Polder Banger (underway);
- In collaboration and building network with city stakeholders (private sector, academician, NGO, communities) in the program *GERDUKEMPLING* (*Gerakan Terpadu Penanggulangan Kemiskinan Bidang Kesehatan, Ekonomi, Pendidikan, Infrastruktur, dan Lingkungan*) The Poverty Reduction Integrated Movement on Health, Economy, Education, Infrastructure and Environment) to enhance the living standard of the poor since they are the most vulnerable groups of climate change;
- Formulating Strategic Environment Assessment (*KLHS, KajianLingkunganHidupStrategis*) document as a city resilience strategic priority in 2011 through 472 million rupiahs local budget (*APBDAnggaran Pembangunan Belanja Daerah*) under the Pollution and Environment Destruction Control Program;
- Implement The Early Study of Rain Harvesting (2011) with pilot sites in two wards (Wonosari and Tandang) in cooperation with Mercy Corps and many institutions under the Coordinating Team of Semarang City Climate Change. The study has been followed up by Environment Office (BLH) of Semarang City by allocating 125 million rupiahs budget on 2011 to build 10 rain harvest instalations through climate change impact controlling program. On 2012, BLH of Semarang City has followed up by building the total 23 rain harvesting instalations—which 16 of them are funded by DBHCHT (Dana BagiHasilCukaidanTembakau/ Revenue Sharing of Excise and



Tobacco Fund);

- Semarang City has allocated 250 million rupiahs in 2011 for conservation of critical land to reduce the climate change impact through the program to increase the water catchment conservation areas and water resources;
- Semarang City has facilitated the coordination of climate change impact programs through Bappeda as much as 100 million rupiahs in 2011 and reallocate in 2012;
- Of the total budget allocation to plant mangroves and wavebreaker instruments as much as 494,900.000 Rupiahs for 2010-2012 by BLH, 484.000.000 Rupiahs are to develop mangroves and wavebreaker instrument, to facilitate the establishment of Mangrove Working Group of Semarang City as well as capacity building by the Marine and Fisheries Office (2011 - 2012), and Rp 528.069.800 in 2011 by Agriculture Office to plant mangroves, build river border, and many more. In 2012, Agriculture Office also receive fund from Special Allocation Fund (*DAK, Dana Alokasi Khusus*) Ministry of Forestry as much as 1,4 billion rupiahs to plant mangrove;
- Semarang City Government has allocated budget as much as 1 billion rupiahs from APBD 2012 to buy back private lands in coastal areas for mangrove conservation and ecotourism as livelihood alternatives for people in the area (follow up of mangrove conservation and APO --wavebreaker instruments— building as climate change adaption efforts), and collaborate with The Government of Central Java Province to develop ecotourism;
- Establish participatory programs to government agencies to support the mainstream issue of climate change and to integrate it into RPJMD.

e. Monitoring and Evaluating

To measure the city vulnerability, vulnerability map in the VA (Vulnerability Assessment) is used as one of the monitoring tool, which is now (2012) in the process of renewal. The result is predicted can be obtained in 2013. Moreover, the city resilience strategies are also reviewed (in 2012) to be integrated into mitigation issues of climate change/emission reducing strategy, to become integrated action plan and climate change mitigation, in collaboration with Mercy Corps, PAKLIM-GIZ and YIPD (Center of Local Government Innovation) which is planned to be finish on 2013.

To measure resilience city sectorally, Semarang City cooperates with Mercy Corps, ISET (International for Social and Environment Transition) USAID, and Diponegoro University to develop Semarang City Resilience Indicator to face the climate change impact, which is predicted to be finish on 2013. To monitor and evaluate the project/activity by non-APBD fund, there is a frequent monitoring (monthly or three monthly), as well as evaluation at least once a year based on the donors regulation.

## Result and Impact

Proactive action conducted by Semarang City Government for the resilience of climate change from the rain harvesting program has achieved some results.

In measuring the succesful level of the program, in general there are some instruments used, such as observing the vulnerability map changes from time to time, which the baseline was taken from the study of city vulnerability. Moreover, since 2011, the working groups team has started to work together with Mercy Corps and ISET to develop city resilience indicator to measure the resilience of city systems. Meanwhile, to measure the result of activities, there are spesific indicators based on types of each activity (See Monitoring and Evaluating, since they both are used to measure succes).

From the institutional coordination and public participation, the result achieved is the coordination among stakeholders become more effective thanks to the existence of the working group. That

because the working group consists of many components in society, such as the city government, academician and NGO, so that the decision making process is carried out based on people's participatives from lots of perspectives which open many options to solve problems in the climate change frame. In the future, the working groups will be endorsed to widen its networking by gather other component in public such as mass medias and private sectors.

The proactive action of the Semarang City has resulted changing in attitude and behaviour of people. It is true that the attitude changing needs more process to be measured, however it can be viewed by the responses of the beneficiaries so that they are better prepared in dealing with disaster. For example, the utilization the rain as alternative water resource when the well is contaminated or during drought, the preparedness of people in dealing with flood by conduct routine disaster simulation, and the existence of Disaster Preparedness Group (*KSB, Kelompok Siaga Bencana*) and many more, so that it can minimize the losses and damages of climate change disaster.

Proactive action conducted by Semarang City Government:

- The establishment of Climate Change Coordinating Team of Semarang City, 2009;
- Availability of Vulnerability Study document and Resilience Strategy of Semarang City, 2010;
- 48 households has applied rain harvesting system;
- 1309 timbers and fruit trees, 5 catchment wells, demplot terraces, and 520 biopori as pilot sites for adapting the drought and landslide impact in 3 RWs in Sukorejo Ward, Gunungpati, 2010;
- 6000 vertiver grasses has been planted as pilot sites in 6 locations prone to landslide as big as 506 m<sup>2</sup> in RW11 and RW13, Tandang Ward, 2010;
- For poor widow sanitation credit, as much as 26 households in Kemijen Ward received credit facilities to improve their sanitation, 1 communal toilet to get water access, and extra 6 head of poor families get access to clean water from this communal toilet, 371 persons in 10 RTs in Kemijen Ward receive information on the impact of climate change and sanitation credit opportunities;
- Until 2011, there are 285.000 mangrove planted, APO builded as long as 785 meters from the demand 1,9 km. Nursery Mangrove and Ecotourism Initiation have become the livelihood for groups of people (fishermans, farmers and the youth) in Tapak, Tugurejo Ward;
- The establishment of Mangrove Working Group of Semarang City, 2011;
- The installation of catchment wells and biopori in many locations in Semarang City;
- In the year of 2011, there are installation for 15 RWHs (rain water harvesting) in household level, and 1 installation spot RWH on a community level that can serve water needs of school toilet (used by 581 students and 20 teachers) and supply clean water to 50-60 households;
- And in 2012, there are 23 RWHs that has been installed in household level;
- The funding opportunity that can be catch related to climate change adaptation, as Flood Early Warning System as a community preparedness in dealing with flood in 2012 around 286,000 USD and dan the Improvement of Coastal Community Resilience through Mangrove and Coastal Management and Alternative Livelihood Development which will be start in early 2013 approximately 450,000 USD.

## **Sustainability**

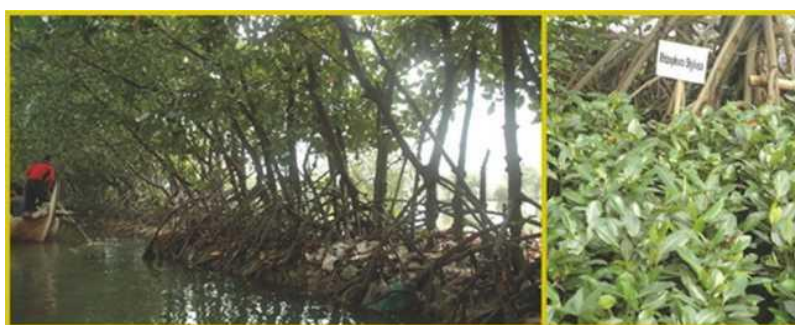
The Semarang City resilience program of climate change can be continued. The program involved all components in society, from the City Government of Semarang, academician, NGO, public and lots more. Moreover, the program has become priority activities of climate change adaptation and already

been stipulated in Local Regulation Number 14 Year 2011 on Semarang City Spacial Plan (*RTRW, Rencana Tata Ruang Wilayah Kota Semarang*) Year 2011-2031.

The activities that already considerate the climate change has integrated into RPJMD—both coordinative and implementative activities, such as Rain Water Harvesting, mangrove and coastal area management, and many more. The flow of financial use for the activities has been allocated in RPJMD by using the procedures of financial reporting based on city government (managed by the city agency). Nevertheless, activities aided by international agencies are generally managed by university or NGO incorporated in working groups team based on the regulation of the donors.

The proactive actions of Semarang City has resulted and award in the form of budget for Semarang City Government and its stakeholders through the working groups. In that case, climate change activities in ACCCRN program only is worth more than 500,000 USD (not include the capacity building program). This has not include other form of cooperations such as with Technical Assistance from PAKLIM GIZ to enhance the city resilience strategies with the climate change mitigation.

It is expected that in mid 2013, with the capacity that has been builded since 2009 related to climate change, Semarang City will more that prepare to access independently funding opportunities, either by the city agenda through the mainstreaming of climate change or by provincial, national or international cooperation.



Picture 19: Mangrove

### Lesson Learnt

Proactive program of Semarang City in facing the impact of climate change has not been implemented yet by cities in Indonesia. The program prioritizes city resilience level on disaster as result of climate change. Many actions that has been carried out - such as coastal area management by using the wavebreaker tools so that it will survive the sea level rise which integrated with tourism program managed by empowering people -- are considered good innovations.

### Transferability

The resilience program on climate change impact can be transferred to other cities that have the some problems. Some things that can be transferred to other cities are the city government has chances to access the new funding opportunities through the climate change frame to deal with urban problems. City stakeholders can build synergies via intensive coordination within workinggroups.

The city stakeholders have capacities in planning, formulating, implementing and controlling urban activities related to climate resilience. There are some preconditions for the program to be applied in other cities, that is, the mayor's commitment via Decree (*SuratKeputusan*) and RPJMD. Moreover, it also needs commitment from SKPD to integrate the climate change activities into the existing programs.

In order to carry out such program, it will need the city government's commitment to prepare resources, either human resources or working groups, commitment to facilitate and coordinate, commitment on budgeting either through RPJMD or counterpart fund to implement the program, budgeting to formulate the city vulnerability study and city resilience strategy studies, budgeting to coordinate the climate change activities, as well as commitment to conduct the city resilience planning for a long term (by integrating it to the city planning document).

This because the climate change has long impact and it already begin since now. That is why all programs we've been doing now are anticipative and proactive process so that the city will be better prepared in facing the climate change impact in the future. More importantly, commitment from local leaders is needed to fully support the process.

The experience of Semarang City is now being learnt and duplicated by some cities in the Best Practice Transfer Program APEKSI in cooperation with Mercy Corps. The cities are Blitar, Cirebon, Probolinggo, Dumai, and Palembang. Some potencies that can be transferred to other APEKSI city members are fund opportunity potency to manage urban problems—either via city RPJMD or proposal to donors or trust fund.

The establishment of city team/Climate Change Working Groups, the formulation of City Vulnerability and Resilience Studies as basis of activities conducted by city related.

## Contacts

### Pemerintah Kota Semarang

1. Ir. Purnomo Dwi Sasongko, MM, MT  
Kabid. Perencanaan Pengembangan Wilayah dan Infrastruktur  
BAPPEDA Kota Semarang  
Jl. Pemuda 148 - Semarang
2. Budi Prakosa, ST, MT  
Kasubid. Perencanaan Ruang dan Lingkungan Hidup  
BAPPEDA Kota Semarang  
Jl. Pemuda 148 - Semarang
3. Ir. Gunawan Wicaksono  
Sekretaris Badan Lingkungan Hidup  
Kota Semarang  
Kantor BLH Kota Semarang, Jl. Tapak, Tugurejo, Semarang 50151  
Email: [gunwicak@yahoo.com](mailto:gunwicak@yahoo.com)  
Ph. 0818453664

### APEKSI

Ahmad Suhijriah  
Manager Lingkungan Hidup  
Rasuna Office Park III Lantai 3 Unit WO. 06-09, Rasuna Epicentrum  
Jl. Taman Rasuna Selatan, Jakarta Selatan  
Email: [ahmad@aepksi.or.id](mailto:ahmad@aepksi.or.id) dan [ahmadsuhiiriah@yahoo.com](mailto:ahmadsuhiiriah@yahoo.com)

### Program ACCCRN Indonesia

AniessaDelima Sari/RatriSutarto/Budi Chairuddin  
Graha STK, F Floor Suite  
Jl. Taman Margasatwa No.3  
Ragunan, Pasar Minggu - Jakarta Selatan.  
Email: [asari@id.mercvcorps.org](mailto:asari@id.mercvcorps.org). [rsutarto@id.mercvcorps.org](mailto:rsutarto@id.mercvcorps.org)

### Source:



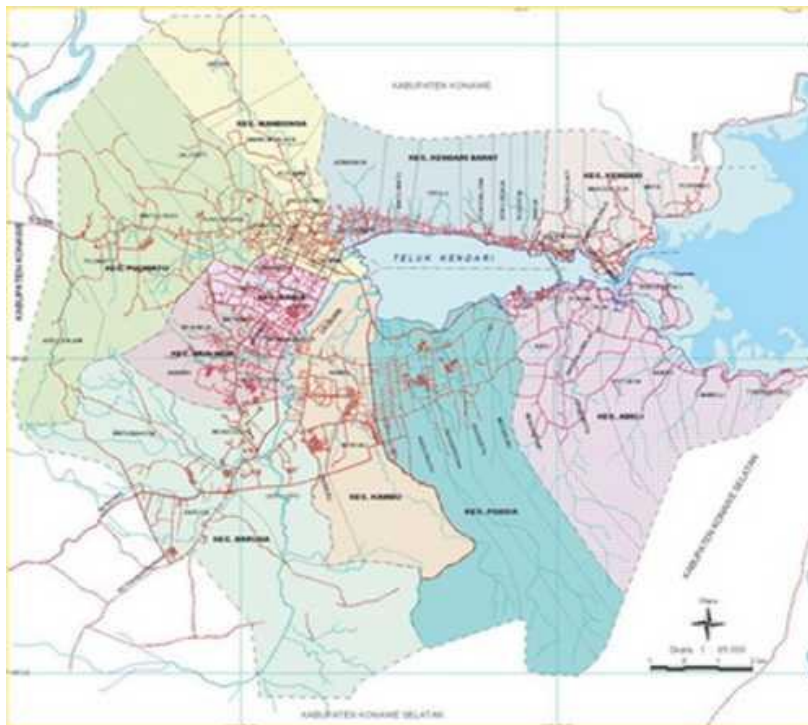
Asosiasi Pemerintah Kota Seluruh Indonesia (APEKSI)  
(<http://www.aepksi.or.id>)

*“Proactive Action of Semarang City: Building City Resilience in Facing the Impact of Climate Change”*  
*Best Practice 8th Edition, 2015*

## Kendari – Local Public Services Agency (BLUD) on Micro Credit, Effort in Improving Weak Economics People Welfare

Kendari is a city in the south east of Sulawesi Island, side by side with territorial waters, known as the same name of its hemmed city, Bay of Kendari. With its territory width of 295,85 km per square meter or 0,70 percent from the total land width of South East Sulawesi Province. Kendari is a hilly land and passed by rivers emptied into the Bay of Kendari, therefore this bay is rich of its sea yield. The latest number of population in year 2010 referred to population census on the same year was 289.966 inhabitants. Kendari City is a capitol of South East Sulawesi Province which is boundary with:

North side : Konawe District  
East side : Banda Sea  
West side : Konawe Selatan District  
South side : Konawe Selatan District



**Picture 20: Kendari Map**

Kendari City has a very varied land typology, therefore it is possible to conduct all kinds of society activities such as farming, plantation, construction, fishery, and the like. As the capital city of South East Sulawesi Province, Kendari is a barometer of the province development. Kendari is also the ultimate destination for urban people in local province, which causes the social economics problems, such as poverty, unemployment and the like. Therefore the seriousness in handling the social problems in that city is obviously a priority. As a new developed city, Kendari needs strategic development programs to cope the social problems in the city. Kendari City population is dominated by four big ethnic groups, which are: Tolaki, Muna, Buton and Bugis-Makassar. Nevertheless, almost all ethnic groups might be met in this city although the numbers are not so many. In this city which is one of the Sulawesi Island leg, an island that looks like a K article, poverty is another problem.

In government level, the poverty alleviation is conducted by improving society economics productivity or in other word empowerment. Other attempts that must be conducted in improving



society welfare, among others: using and managing local economics potency by focusing on primary sectors by providing business location, capital support and cultivation, also simplifying the regulation to stimulate business world, beside developing the economics institutions, such as banking institution, credit, marketing and cooperative

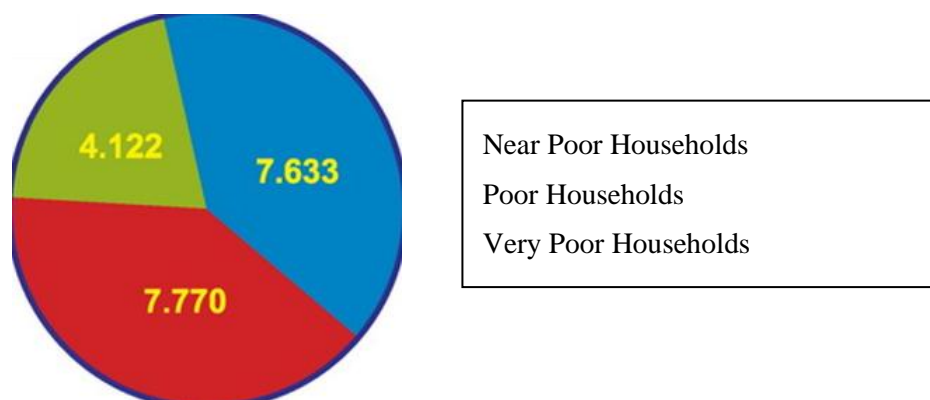
## Process and Solution

### Situation Before the Initiative

At the beginning of 2007 until 2012 period, it is identified eight major problems, details as follows:

- 1) Moral, character, and discipline;
- 2) Cleanness, healthy, and city surrounding;
- 3) Traditional market and area for street vendor;
- 4) Social facility and infrastructure;
- 5) Infrastructure or city street;
- 6) Clean water (accumulation within +30 years);
- 7) Flood or drainage;
- 8) Economics and poverty;

One of eight problems, the poverty is an urgent development problem to cope with. From Social Protection Profram (*PPLS, Program Perlindungan Sosial*) data conducted by BPS of South East Sulawesi Province in year 2008, the classification of poverty number (in one household unit) in that year can be shown on below diagram:



Picture 21: Diagram o f Poverty (in household) of Kendari City

One of the number contribution comes from the saddened condition of informal sector merchant in Kendari City. This is caused by having no capital access to banking institution. They actually want to survive with even a job that only makes small amount of rupiah per day, or sometimes they do not obtain income everyday, but on the other hand they actually contribute in working place creating sector.

They not only face the above condition but most of small merchants in Kendari City very much depend on the usurer, with the condition of high enough interest rate. Consequently of the above limitations, most of them have no proper life and deal with difficulties in borrowing micro credit.

### Initiative

High enough poverty numbers in Kendari City (32,71 per cent in year 2008) made the local government ashamed. Through Dr. H. Asrun, M. Eng. Scdirection as the Mayor of Kendari City



Government, it was launched the capital support in the form of micro credit to mobile merchant and small scale enterprise.

In year 2009, to strengthen the poverty data compiled by Kendari City Government, then the cooperation with Institute for Social Empowerment and Democracy and Haluoleo University conducted by doing research concerning Review in Finding the Poverty Root Problem in Kendari City and Society Empowerment. From the research found confession from the poor society whereas the poverty culture was one of the cause of the poverty itself. Nevertheless, they did not know what to do to come out of the culture trap.

Considering the above facts, Kendari City Government saw the importance of strategic effort through society empowerment programs which actually have selling business, among others through Micro Credit Support Program which is managed by BLUD Harum, a working unit of Local Financial Management Agency (*BPKD, Badan Pengelola Keuangan Daerah*) of Kendari City Government. The program was launched and officially effective on the 176<sup>th</sup> anniversary of Kendari City on 9<sup>th</sup> May 2008. The capital support in the form of micro credit is referred to:

1. Elaboration of Grameen Bank concept with Government Regulation (PP) Number 58 Year 2005 and Regulation of Ministry of Home Affairs (Permendagri) Number 61 Year 2007

BLUD program is stipulated in strengthening society capacity who have economics potency, particularly for poor society having problem in obtain fund for business capital. All this time lots of society requests on business capital support, whether through National Program for Community Empowerment (PNPM, Program Nasional Pemberdayaan Masyarakat), Poverty Program (P2KP, Program Penanggulangan Kemiskinan di Perkotaan), Ward People Empowerment (P2MK, Program Pemberdayaan Masyarakat Kelurahan), and through Development Planning Meeting (Musrenbang, Musyawarah Perencanaan Pembangunan), but when the fund is distributed in the form of revolving fund, usually the fund is ended unrevolving (Puso). The weakness in selection process of debtor candidate is one of the hampered factor in revolving the fund to strengthen the capital.

In macro, BLUD concept adopt Grameen Bank is developed by MuhammadYunus. Beside Grameen Bank concept, BLUD is attached with its legal based, among others Government Regulation Number 58 Year 2005 on Management on Local Finance, Article 145 until 150 which specifically regulate about Financial Management on Local Public Services Agency (BLUD). In short, the management includes BLUD asset status which is regional asset and can be managed completely to organize BLUD activities.

While the Techniques on Local Public Services Management is referred to Ministry of Home Affairs Regulation Number 61 Year 2007 on Technical Guidance on Composing and Stipulating the Minimal Service Standard. In article 62 of the regulation, BLUD is given authority to manage all its income and made a special account. BLUD named HarumKendari manages its own financial, including profit sharing and other income, it also has account in Regional Development Bank (BPD) of Kendari City under the name of Local Public Services Agency (BLUD) Office.

2. BLUD is not a People Credit Bank (BPR, Bank Perkreditan Rakyat)

BLUD is a micro financial institution, is established by Kendari City Government to provide business capital loan service. BLUD is directed to cope the structural poverty by cutting usurer chain and also provide business capital as part of the human right fulfillment.

## Implemented Strategy

To make BLUD move as an organization, it is needed a preparation and a careful thought. This is also to realize that BLUD of Micro Credit was first established in Kendari City. Therefore implemented strategies are first, from government side and second from customer candidate side.

In details as follows:

### a. From government side

#### 1. Preparing the regulation

Beside legal based from Government Regulation (PP) Number 58 Year 2005 and Ministry of Home Affairs Regulation Number 61 Year 2007, the technical management of revolving fund next regulated through Kendari Mayor Decree Number 6 Year 2008 on Financial Management System of BLUD of Kendari City. This Mayor Decree is also functioned to guarantee the program sustainability until the effect can be seen clearly. In the long run, if bankruptcy happens, according to Ministry of Home Affairs Regulation Number 61 Year 2007, the solution will be regulated in accordance with regional loss settlement.

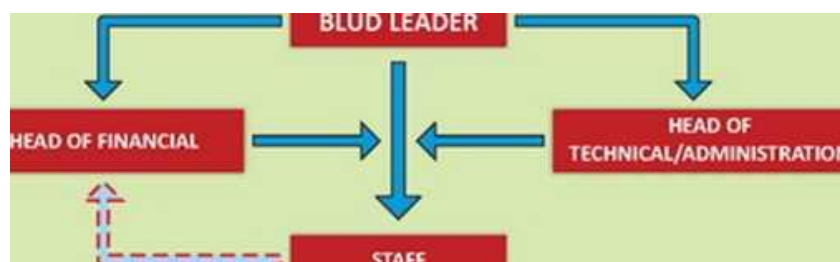
#### 2. Recruiting Management Officer

At first BLUD management official came from volunteers with high fighting spirit. This was because moving a new established organization with relatively limited facilities and infrastructures need voluntarily spirit and soul. But this will not take long, in relation to BLUD development with more debtors, BLUD personnels are also adjusted either technically and administratively.

Therefore the recruitment of BLUD management official is open and also through selection process. Recently BLUD employees are 25 persons consist of:

- 1 BLUD Head (Non Civil Servant)
- 1 Financial Management Officer (Civil Servant)
- 2 Technical Officers (Non Civil Servant)
- 2 Field Officers (Civil Servant)
- 13 Field Officers (Non Civil Servant)
- 6 Administrative Officers (Non Civil Servant)

In fulfilling its activities, BLUD is supported by effective organization institution as shown in the following structure:



Picture 22: Diagram of Organization Structure of BLUD of Kendari City

In that organization structure shown that BLUD in conducting its activities is very efficient, consists of one head, two officers that are financial officer and administrative technical officer, and several field staffs who directly interact with the debtor in fulfilling and collecting the borrowed loan in accordance with its due date.

In implementing his duty and function, the head generally operates and controls the organization management. The head with two officers (finance officers and administrative technical officers) will appraise the business feasibility of the debtor. The finance officer will do financial functions such as recording, until the incoming money, either from field staff collection or outcoming the fund in accordance with the customer request. Administrative technical officer duty is to register and serve the customers. While field staff duty is to collect due loan from debtor and deliver the proceeds to finance official.

### 3. Preparing facility and infrastructure, and capital

The village meeting was held to introduce BLUD as government program that was ready to provide capital support, in year 2008 invited all merchants who were spread in several markets in Kendari City, there it went the beginning activity of a new office.

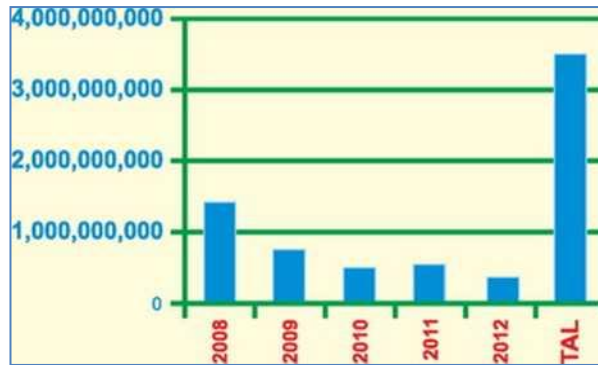


Picture 23: BLUD of Kendari City Office

Beside regulation tool, to support BLUD operation, at first a room was prepared as an office and also a temporary service place which was located in the office of Local Financial Management Agency (**BPKD, Badan Pengelola Keuangan Daerah**) of Kendari City. But with increasing numbers of customers, and also the recruitment for new employees, affect the activity and working condition [articularly the service. With those condition finally it was decided to establish a BLUD office and now it has its own office located on Drs. H. Abd. Silondae Street No. 37 Mandonga Village, Mandonga Sub district, Kendari City. Initial capital as injection to Micro Credit BLUD came from Local Budget (APBD) of Kendari City with details as follows:

Table 1: Budget Profile of APBD of BLUD of Kendari City

Year	APBD Disbursement (Rp)
2008	1,500,000,000
2009	750,000,000
2010	500,000,000
2011	502,700,000
2012	365,200,000
Total	3,617,900,000



Picture 24: Diagram of Budget Profile of APBD of BLUD of Kendari City

In disbursing APBD fund for micro credit in BLUD, Kendari City Government does not stipulate the fund amount that must be disbursed every year. The fund allocation will be rationalized every year in accordance with the increasing of creditor numbers and referred to projected result of last year report.

b. From (Candidate) Customer Side

Socialization initial process of BLUD through village meeting, which always attended by BLUD management was held in year 2008. For the next step, no special program conducted due to the socialization was handled by field officer while trying to obtain new customers.

During implementation, for customer candidate there are several steps and conditions to fulfill and complete in order to obtain the fund access or BLUD Micro Credit. Condition for them who intend to propose for loan at BLUD come from poor household, original people of Kendari City. In giving the credit, BLUD will prioritize to the debtor candidate based on survey result report compiled by customer surveyor staff.

1. Forming the Group

The debtor candidate form a group consists of five persons:

- In the group of five, the first borrowers are only three persons.
- After repayment of 80%, then two group members may borrow. This way is conducted to motivate the group in managing the loan properly and repay it in accordance with its due date.

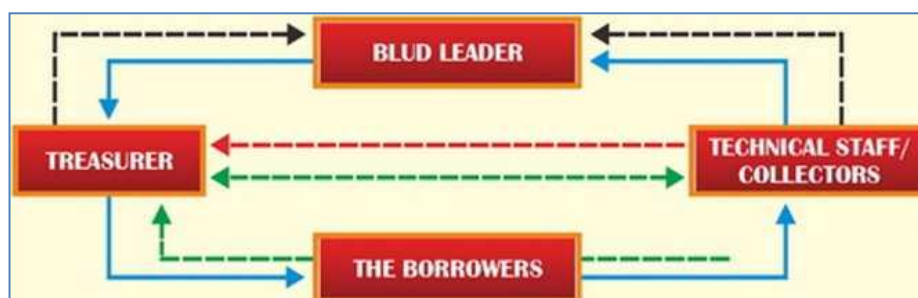
2. Borrowing

Pursuant to the operation in securing the simplicity of business credit access for every debtor having profession as a small and micro enterprise merchant, BLUD implement the mechanism in accordance with the conditions as follows:

- Debtor or applicant must have ID card and domiciled in Kendari City;
- Having permanent enterprise;
- Without attaching proposal and just fulfilling the form provided by BLUD;
- Prioritized to women;
- In the form of group;
- Applicant will be surveyed to his address and his own business.

After all conditions fulfilled, the business feasibility team will visit the enterprise and review the amount of given loan. The first loan amounting Rp. 500.000 - Rp. 3.000.000 per person and next might be increased depending on the business development, with period of

installment payment can be done weekly. Below is the borrowing flow and the installment payment:



**Picture 25: Flow Chart of Borrowing and Installment Payment**

Line marks:  
 Blue: borrowing/lending flow  
 Red: installment payments flow  
 Green: settlement and verification flow  
 Black: reporting lines

While payment comparative can be shown in the illustration below:

**Table 2: Illustration Payment Comparison**

Finance Institution	Installment		Payment (Including Interest/Fee) (Rp)
	Payment (Rp)	Period	
BLUD	10,000/hari	100 hari	1,056,000
Other Institution (BPR)	40,000/hari	30 hari	1,250,000

The above illustration is the loan in the amount of Rp. 1.000.000,00 BLUD - Revolving Fund, administration fee amounting 1,67 percent per month or 20 percent per year OTHER INSTITUTION, administration fee ( Rp. 50.000,-) + interest amounting 20 percent per month or around 240 percent per year. The debtor with settled loan and intends to increase loan capital, first must propose for amount borrowed as the initial process, and then continued to technical division to be reviewed the loan payment history and business condition.

### 3. Control System

Control System conducted at Micro Credit BLUD consists of:

#### (a) Internal Control

- The form of loan payment schedule is held by three parties, which are the debtor, the collector and the treasurer;
- At every installment payment, the form will be signed by the debtor and the collector;
- The latest installment settlement is conducted directly to the treasurer also to verify the installment payment by the debtor and the collector.

#### (b) External Control

- Implemented randomly from all different borrower groups done by supervisor (inspekorat).

In the run for almost four years, bad debt at BLUD Harum is always below ten percent every year. Providing the fund to the group will be implemented gradually. First, to three persons internally approved by the group, the other two members must wait until the repayment of the previous debtor has reached 80 percent. If bad debt happens, BLUD collector will inform to the debtor of the bad debt in order to continue the installment payment and ask support from other group members. This is because the collector or field staff know the other group members properly, therefore it is easy to monitor and evaluate the bad debt to be settled, and they can get the loan.

This is internal control among group members, because if the first debtor or the second are late in paying the installment, it will affect the next debtor candidate.

The faced obstacles:

In the fourth year of BLUD journey, there are several problems faced either by Kendari City Government or BLUD internal side. The problems are as follows:

- a) Lack of knowledge and capability of some BLUD management officers.
- b) No integrated data that can describe the decreasing poverty number and the improving of debtor standard of living.
- c) Limited of BLUD personels, recently only 25 persons to do the data related to the increasing and result achieved by BLUD.
- d) Several debtors have not paid the settlement according to the due date, although the number is still below 10%.

In coping all the obstacles above, Kendari City Government also cultivate and train BLUD management.



Picture 26: Training Program for BLUD Management Team of Kendari City

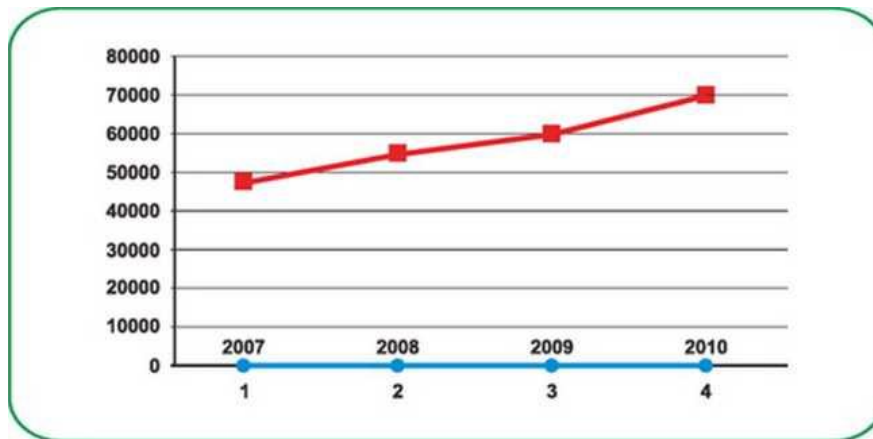
While to deal with bad debtor, it will conduct the reschedule for the credit repayment within 100 next days for the remaining balance. If with the reschedule scheme, it has not settled either, then intensive collection will be done until the credit settled.

## Result and Impact

From the initiative of establishing Kendari City BLUD, the achieved results are as follows:

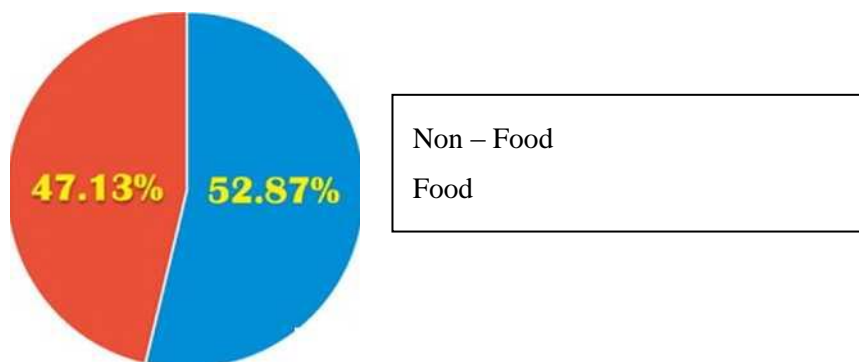
1. The income rate is increasing. In general, during 2008-2010 period, the ty welfare rate increase shown by the increasing of outcome rate per capita as real income proxy. The average of adjusted real expense per capita is increasing 12,40 percent in year 2010 compared to previous year.





Picture 27: Chart of Average Real Expense per Capita

- The development of welfare level based on outcome percentage growth which is allocated for non-food. Pursuant to the provided data, it is shown that outcome percentage for non-food in year 2010 is higher than outcome percentage for food which is 52,87 percent from total population outcome.
- Indicator for rate of growth of Kendari City of Gross Regional Domestic Product (**PDRB, Produksi Domestik Regional Bruto**) Based on Constant Prices (**ADHK, Atas Dasar Harga Konstan**) which has no significant decreasing since year 2008.



Picture 28: Diagram of Percentage of Outcome of Food - Non Food to See the People Welfare Level

Source: Welfare Indicator of Kendari City, 2011

Table 3: The Growth Rate of Kendari GDP

Year	PDRB Rate of Growth (%)
2008	10,49
2009	11,99
2010	9,75
2011	10,05

Source: PDRB Sultra 2009-2011 (BPS)

- The increasing of served debtors and distributed fund shown by below table. This seems that the increasing of society trust level and needs toward the existence of BLUD.

**Table 4: The Number of Customers Served and The Funds Channeled to Customers**

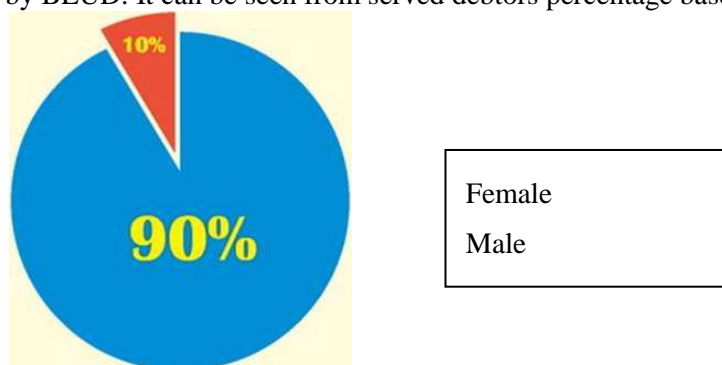
Month	Year	Served Debtor (Person)	Distributed Fund (Rp)
December	2010	5744	9,391,000,000
December	2011	6200	8,290,000,000
May	2012	8161	3,838,000,000

5. The income increasing to BLUD cash shown by below table:

**Table 5: Income Data from Basic and Service to BLUD Cash year 2008 - 2011**

YEAR	BASIC INCOME (Rp)	SERVICE INCOME (Rp)
2008	685,780,000	81,336,000
2009	4,420,795,000	311,220,000
2010	7,787,700,000	444,444,000
2011	8,149,150,000	466,071,000

6. BLUD service is able to embrace the women debtors more than men. This shows how high the number of women working at trade sector and service and this thing can be accomodated by BLUD. It can be seen from served debtors percentage based on gender:



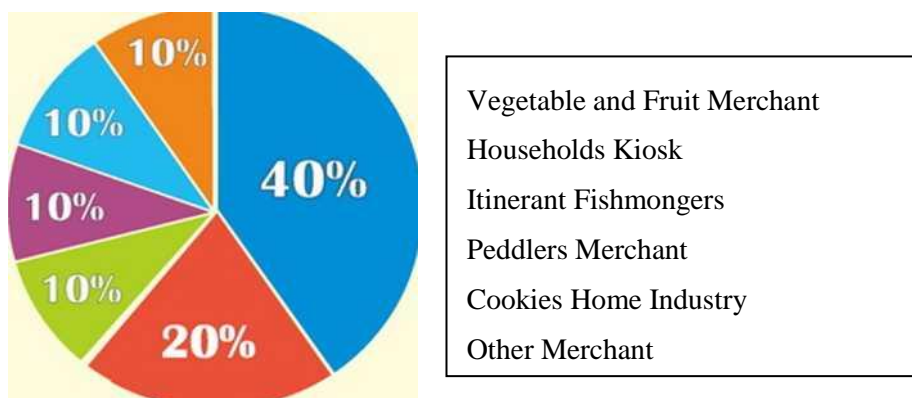
**Picture 29: Chart of Percentage of BLUD Costumer by Sex**



**Picture 30: Waode Opuka, one of BLUD Costumer**



Picture 31: Canteens at the Mayor's Office are Customers of Kendari BLUD as well



Picture 32: Chart of Percentage of BLUD Customer by Enterprise Type

7. Qualitatively the positive effect of BLUD Program can be seen from the increasing omzet of fund beneficiary who are in average having profession as small scale merchants and from poor society group and almost poor as the target of BLUD program.

For example, Muslimin (50 years), one of the merchant at Mandonga Market once became BLUD debtor in year 2010. He just borrowed Rp. 500.000 from BLUD, but it can increase his products with rice and corn, before becoming BLUD debtor, by only trading the spices, his daily omzet is around Rp. 1.000.000,00. But after obtaining BLUD fund, in one day he could increase his omzet until Rp. 2.000.000,00. and able to re-use the capital and pay BLUD installment loan within ten weeks.

Other story comes from Erniyati who was since year 2008 open a business of cake and coookies order. With the touch of Rp. 500.000,- capital, the order can always be fulfilled, abundance of ingredients, and income increasing until three times from usual. Before having BLUD fund she often had difficulties in purchasing the cake ingredients. But after obtaining BLUD fund, she could pay the installment of motorcycle that could help her more mobile in delivery the order.

8. Other effect from the fund support can also be observed at the the increasing of efficiency and effectivity of expense outcome for poverty alleviation. At first, the programs had consequencey on expense outcome and APBD burden, but in the long run BLUD will be independent due to its profit sharing from each debtor is two percent in average. Besides the success indicator has been reached by looking at the increasing of debtor numbers every year. It is obvious that there is trust from debtor candidates to this institution, and also the simple procedure offered.

Debtor target that will be served by BLUD Program is expected can be developed properly. The reached target can be obtain if the repayment of business capital can be run smooth, well, and controlled.

## Sustainability

To keep the sustainability of Micro Credit BLUD, several cooperations with certain institutions in giving assistance in operational technical or increasing the individual capacity and institution has been done.

In securing the sustainability, the operational technical is conducted as follows:

1. Operational assistance in cooperation with Development and Financial Supervisory Board  
(BPKP, *Badan Pengawasan Keuangan dan Pembangunan*) of South East Sulawesi Representative

a. Composing Minimal Service Standard

In order to fulfill one of the administrative conditions that is stipulated by BLUD, Task Force for Revolving Fund Management of Kendari City in cooperation with BPKP of South East Sulawesi Province composing a Minimal Service Standard (SPM) documentary.

SPM is a service performance standard toward implementation of standard operating procedure (SOP) at every service. The objective of Minimal Service Standard is as a guidance in providing minimal service in distribution of the revolving fund that must be provided by Task Force for Revolving Fund Management of Kendari City to people.

The objective of Minimal Service Standard stipulation are as follows:

- Securing the fulfillment of the needs for distribution of revolving fund service with certain quality.
- Securing the effectiveness and efficiency for management of revolving fund in a healthy business practice.
- Securing the uniformity and consistency of planning, implementation, monitoring and evaluation of revolving fund distribution.
- Determining the needed amount budget in providing the service of revolving fund distribution so SPM might become a basic tool in determining the financial need for proposing the budget to Local Budget Committee and DPRD.
- Increasing the accountability to society. On the other hand, the society can measure how far the Task Force of Revolving Fund Management can fulfill its obligation in providing its service.
- Supporting the transparency and society participation in service implementation process.

b. Composing Business Strategic Planning

Beside BPKP assistance as mentioned above, it is also directed to compose a document of BLUD Business Strategy Plan. Business surrounding that keeps changing needs changing management in mapping the strength effect toward organization direction. Referring to the strength mapping, it will be used as material for composing planning document that is expected to accommodate all kinds of interest and anticipated knowledge to become the basic of strategic decision stipulation in achieving organization vision.

BLUD Business Strategic Plan - Task Force for Revolving Fund Management of Kendari City is a sustainable process and systematic from business decision making in providing the service of revolving fund loan. Several objectives to be reached in composing the Business Strategic Plan among others are:

- As a road map in directing the policy on BLUD source allocation - Task Force for Revolving Fund Management of Kendari City in achieving the organization vision.
- As a guidance for organization control tool toward budget use. To integrate step, move and commitment from the whole people in Task Force for Revolving Fund Management of Kendari City in increasing the performance in accordance with targeted management standard and service quality standard in planning document.

While to increase the individual capacity and institutional, the assistance is conducted from Management Expert Official in cooperation with Brawijaya Malang University. The assistance is conducted by several respected lecturers from Faculty of Economics from Brawijaya University and also expert in assisting UMKM in several provinces in Indonesia. This is to increase the Human Resources Development quality and BLUD debtors through knowledge transfer process and the changing of the way of thinking and characters in increasing managerial and entrepreneurship capability.

Therefore it will strengthen BLUD as one of reliable and credible entities in managing and using the given fund and trust, either from the government or society particularly BLUD debtors that mostly are poor society or less capable.

### **Lesson Learnt**

Observing the BLUD Program, there are lots to learn, among others:

- > Giving trust to poor society, that they will be able to attempt in fulfilling their life necessities with support, although it is small from local government.
- > Giving the awareness to society that the revolving fund by the government, not always in grant form, but a stimulation to attempt.
- > Government policy must be enjoyed by the society, particularly they who live in poverty and incapability.
- > Particularly in managing government budget (APBD), it is better if government invite other party for transparency process and professional management.
- > The increasing of the debtor numbers from year to year show the trust to government that their destinies are also put on attention.

### **Transferability**

Poverty problem is a problem happens at several other regions. One of the poverty causes is no intervention from the local government in providing stimulation and motivation for them who have limited capital, at the end, will bring high poverty rate.

From Harum BLUD program, it is shown that the government's willingness to help society in providing micro credit support without collateral. And also for the handling of revolving fund which usually arranged not in a professional way that cause wrong target, useless and even having no benefit for the poor people.

In conducting this program, it sure needs serious commitment from regional government in alleviating the poverty, the commitment must be realized in the form of program and budget support although the amount is not too big. Besides, the data of poverty must be classified, therefore the target for the revolving fund will be clear.

## Contacts

### 1. **PEMERINTAH KOTA KENDARI**

Abdul Jamil, SE, M.Si  
Sekretaris Badan Pengelolaan Keuangan Daerah Kota Kendari  
Jl. Ahmad Yani No.21 Kendari  
Hp. 04013193995  
Syahrir  
Pimpinan BLUD Harum Kendari  
Ph. 081341681671

### 2. **SEKBER KOMWIL VI APEKSI**

A. Nur Fitri Balasong  
Staf Informasi dan Komunikasi Sekber Komwil VI APEKSI – ADEKSI  
Jl. Jendral Ahmad Yani No. 2  
Kantor Walikota Makassar, Balaikota Tower Lt. 6, Makassar 90111  
Telp. 0411 310862, Fax. 0411 310336.  
Email: Sekber\_komwil6@yahoo.co.id

Source:



*Asosiasi Pemerintah Kota Seluruh Indonesia (APEKSI)*

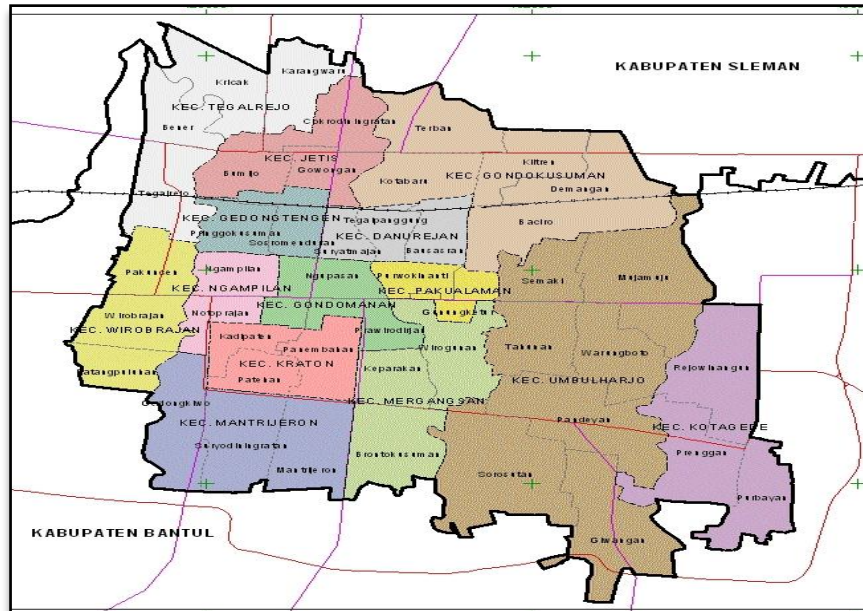
*(<http://www.apekti.or.id>)*

*"Local Public Services Agency (BLUD) of Kendari City on Micro Credit, Effort in Improving Weak Economics People Welfare"*  
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## Yogyakarta – Taman Pintar (Smart Park) as an Alternative Educational Public Service

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Picture 33: Yogyakarta Map

This city has a total area 32.5 km<sup>2</sup>, or 1.02% of the area of the Province of Yogyakarta (in 2009). A number of populations were 444,236 in habitants 88,847 households (in 2008). A number of poor residents was 81,334 in habitants. There are 14 sub-districts, consists of 45 wards, 362 RWs (community association) and 2,523 RTs (neighborhood association).

Yogyakarta City is located in the area of Mount Merapi flow plateau slopes with a slope of 0-2 degrees and an average altitude of 114 meters above sea level. Mostly, land use is housing which is equal to 106,338 hectares and the smallest part is vacant land with an area of 20,041 hectares.

Yogyakarta City is the capital of Yogyakarta Province, which automatically made it as the center for governmental service activities. Yogyakarta is known as the city of culture, of education and of tourism. As the city of education, there are a lot of educational activities for all levels. To support the title, Yogyakarta built an “icon” called the Taman Pintar (Smart Park). It is a place to study science and technology.

At the Taman Pintar, children and adults will be able to learn and to love science and technology. By understanding and loving science and the world of technology, Yogyakarta City Government hoped that people can improve their quality of lives.

### Process and Solution

#### Situation Prior to the Initiative

Prior to 2004, when Yogyakarta City had already attained the title as the city of education and tourism, it did not have the “icon” to support the title. The city government believed it was necessary to have a tool to create a public service facility to reflect the comparative advantage as well as to empower the city in holding the title of city of education and tourism.

## The Initiative

In 2004, the Yogyakarta City Government launched the idea to build a “Taman Pintar”. The idea was to show that city government care about education. Innovations taken by the government were not only in the form of visual tools, but also by giving new variants to fulfill public basic needs. Education service is a basic need. The Taman Pintar was designed to become a modern sophisticated public service that combined an open public space and learning facilities for everyone.

The Taman Pintar is located at a shopping center. It was a place where people sell secondhand books for students, including university students. The Taman Pintar was built based on a “growing building” concept. It was started in 2004 and built phase by phase, both for the building and the service facilities. The Taman Pintar was strategically placed at a location with historical value, closed to Yogyakarta Cultural Park, Vredeburg Fort, the Great House (*Gedung Agung*), Malioboro area, the city plaza (alun-alun), and the Palace of Yogyakarta.

## Strategy Implemented

### a. Establishment of Institution and Organization Structure

Initially, before forming a permanent organization, the Yogyakarta City Government founded the Taman Pintar Development Team (*Tim Pengembang Taman Pintar*). The Development Team worked together with other stakeholders, especially educational institutions in Yogyakarta, such as UGM, STTNas, Akprind, to develop various concepts of infrastructures to support the Taman Pintar operation.

As an institution, it was formed initially as mentioned in the Yogyakarta Mayor Regulation No.22 year 2007 regarding Technical Implementation Unit for Managing Taman Pintar, to run under the Yogyakarta Education Agency. Later on, in accordance to the Local Regulation No.9 year 2008 regarding Establishment, Structure, Position and Main Tasks of Local Technical Institution, the Taman Pintar management was turned into a Local Body for Public Service (BLUD) in the form of Taman Pintar Management Office.

### b. Purpose and Philosophy

Taman Pintar was established with a vision to make it as a place for the best scientific expression, appreciation, and creations in Southeast Asia within a pleasant environment. The philosophies behind it were *niteni* (to pay attention), *niroake* (to replicate), and *nambahi* (to develop). The purposes of developing the Taman Pintar were as follows:

1. To provide an infrastructure to learn science that supports the curriculum at schools for students;
2. To motivate children and the youth to grow love on science;
3. To help teachers in developing teaching materials in science;
4. To introduce local culture, especially to children and public in general;
5. To spread information and knowledge of science and technology suitable for children;
6. To provide alternative for scientific tourism.

As a center for scientific study, the Taman Pintar not only develop attractions or contents related to science and technology, as other similar bodies usually do in Indonesia or abroad, but it also developed attractions and contents based on local wisdom, such as knowledge about Javanese culture, sultanate, etc.

### c. Funding Scheme

At the first stage, the fund of the Taman Pintar was included within the local budget. The construction was built by the Local Assets and Building Agency, while the management was taken care of by the Education Agency, in which in 2004, the park was still in the form of a technical implementation unit (UPT). Along with the advance development (operational and

maintaining needs), the Yogyakarta Taman Pintar UPT began to apply the financial management scheme of a local public service body (BLUD) in 2007. Two years later in 2009, the institution elevated its status to become the Taman Pintar Management Office and in 2010, it applied a fully-local financial management scheme.

**Operational Funding Table for Taman Pintar 2009-2012**

Operational Fee	Services	Local Budget	Total
2009	3.529.811.201	2.155.612.371	5.685.423.572
2010	5.301.145.270	2.022.056.813	7.323.202.083
2011	8.732.067.558	522.943.840	9.255.011.398
2012	9.587.008.243	651.935.172	10.238.943.415

Note: starting in 2011, expenses of the local budget were allocated only for salaries of civil servants.

d. Development of Contents and Attractions

When they began to develop the concept for the Taman Pintar, the Yogyakarta Government involved several SKPDs and other stakeholders (the Education Agency, Organization Department, Development Control Department, Bappeda (Local Planning Agency), and academics) to devise, supervise, and develop the Taman Pintar as a science center.

In accordance with its original concept as a “growing building”, the Taman Pintar was built step by step, those were (from the beginning until the grand opening) as follows:

- May 20<sup>th</sup>, 2006:  
Construction and first soft opening for playground and Early Childhood Program (PAUD) Building, by the Minister of Education (Mr. Bambang Sudibyo).
- June 9<sup>th</sup>, 2007:  
Construction and second soft opening of the Oval Building, first and second floor and Kotak Building, first floor, by the Minister of Education (Mr. Bambang Sudibyo) and the Minister of Research and Technology (Mr. Kusmayanto Kadiman), also attended by Sri Sultan Hamengkubowono X (the Governor of Yogyakarta Province).
- December 16<sup>th</sup>, 2008:  
Grand opening by the President of the Republic of Indonesia (Mr. Susilo Bambang Yudhoyono). The grand opening covered all facilities offered by the Taman Pintar, including 2<sup>nd</sup> and 3<sup>rd</sup> floor of Kotak Building, The President’s Footprints and Memorabilia Building.



**Picture 34: Grand Opening of Taman Pintar by President**



Picture 35: Oval Building Atmosphere

## Result and Impact

Initially, the Taman Pintar was built to serve people in Yogyakarta City, from preschool children to high school students, so they get better comprehension about lessons they receive at schools in a more interesting way. However, over time, the park has served not only people in Yogyakarta City, but it also fulfilled the needs for information about science and technology of domestic and foreign tourists, from all ages and social status.

Taman Pintar facilities were as follows:

### A. Taman Pintar Zoning

1. Playground Zone was a public and welcoming space for visitors. It provides a number of attractive props (tools) for children and family. Since it was located at the park's front yard, it was accessible freely by visitors. The Playground Zone consisted of ancient inscriptions, president's footprints, peace gong, achievement footprints, pulley system, dancing water park, labyrinth, stone forum, storytelling pipe, color spectrum, singing walls, whispering parabola, mini climatology, sea attraction, my beautiful village, batik house, and pottery house.
2. East and West Early Childhood Program Zones, showing various props and educational toys for children, especially for preschool and kindergarten students. East and West Early Childhood Program were located at a Dutch-made heritage building which was kept in its original condition. The building consisted of a waiting room, science and technology room, religion and cultural room, brick arranging room, adventure room, profession room, and performance room.
3. Oval Building, showing various scientific educational based props packed with entertainment. This building consisted of plain water zone, pre-historic life zone, dome area zone, science bridge zone, nuclear zone, electricity zone, weather, temperature and earthquake zone, computer technology zone, telecommunication technology zone.
4. Kotak (Box) Building, consisted of illusion room, oil and gas processing zone, milk processing technology zone, agriculture zone, water for life zone, science bridge zone, inheritance zone, city planning zone, library zone, communication and information technology zone, and automotive technology zone.
5. Memorabilia Building, showing props about Indonesia history, such as the history of the Sultanate of Keraton Ngayogyakarta Hadiningrat and the Yogyakarta Pakualaman, prominent educational personalities and every single presidents of the Republic of Indonesia
6. Planetarium, showing props in the form of movies about outer space and the solar system.



## B. Supporting Infrastructure Zone

It consisted of: exhibition hall, audio visual room, radio of Anak Jogja (Jogja Kids), musholla, mosque, elevators, food court, souvenir counter, and an ATM center.



Picture 36: Ancient Animals Zone



Picture 37: Climate and Earthquake Zone



Picture 38: Taman Pintar Yard & Oval Building



Picture 39: Performance Room



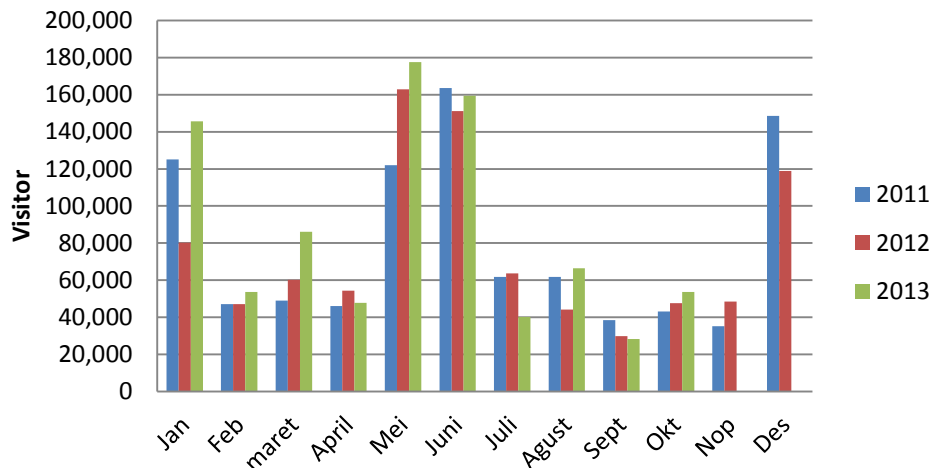
Picture 40: Playground Zone/Batik House

The Taman Pintar was considered successful simply based on the increasing number of visitors annually. On average, 1 million people visited Smart Garden every year coming not only from the Java Island, but also from all over Indonesia and abroad. Financially, the Taman Pintar has never missed its target every year.

**Target and Realization of Taman Pintar Income 2009-2012**

Total Income	Target (Rp)	Realization (Rp)	Percentage
2009	5,000,000,000	6,574,249,016	131.48%
2010	5,800,000,000	7,139,754,885	123.10%
2011	8,340,000,000	9,402,739,303	112.74%
2012	9,333,000,000	10,254,353,598	109.87%

**Graphic of number of visitors annually in  
2004 - 2012**



**Table of IKM Year 2010-2012**

Year	Number of Respondents	Time of Survey	Result	Notes
2010	-	-	76.2	Has not referred to KEP/25/M.PAN/2/2004
2011	150 respondents	January – July 2011	79.57	Based on KEP/25/M.PAN/2/2004
2012	1,000 respondent	October – November 2012	81.53	Based on KEP/25/M.PAN/2/2004

Establishment of the Taman Pintar made the people of Yogyakarta see that the city government had tremendous awareness on education. People really enjoyed learning while hanging out at the Taman Pintar. This was shown by the annual People Satisfaction Index (*Indeks Kepuasan Masyarakat/IKM*), (as shown in the table above) where the satisfaction rate reached 75%. As a public service institution, the Taman Pintar was committed to provide learning tools as well as leisure alternatives. This service was carried out and continuously improved, and in 2010 the park applied an ISO 1900:2008 quality management system, which led it to receive the National Prime Service Performance (*Citra Layanan Prima Tingkat Nasional*) award.





Picture 41: National Prime Service Performance (CLP) Award

## Sustainability

Along with Yogyakarta City's RPJMD (regional midterm development plan), the Taman Pintar was constantly developed. The park would prepare new attraction or zone every year. By this concept, the management hoped that regular visitors would not be bored to pay more visits. From the legal point of view, the Taman Pintar was operating legally based on local regulation. Therefore, it was fully recognized and would not depend on one's leadership. Until recently, each of its development, all policies regarding financial managements or services were always based on the regulation issued by the Mayor or the Head of Taman Pintar management.

During development, the Taman Pintar also worked together with various parties (Microsoft Indonesia, Toyota Astra Motor, Aqua Danone, Sari Husada, BATAN, BMKG, etc), not only on development process, but on the improvement of zones or contents, activities, promotions, etc as well. This move would significantly suppress the budget, especially the ones for developing and refreshing zones and contents.

## Lessons Learnt

The Yogyakarta City Government was trying to fulfill basic education service for the public in a different shape. Previously, basic education services only focused on being free services, uncharged. Nevertheless, the development of Taman Pintar was a hope to fulfill the needs of education world, which would not only touch people at all levels, but also give other multiplier effect (like the increasing of local economy and the city's income).

## Transferability

In general the Taman Pintar has been known nationwide and worldwide (the Taman Pintar has joined the Asia Pacific Network of Science and Technology Center/ASPAC since 2008). Since that, there has been a lot of local governments from all over Indonesia visited Taman Pintar for a comparative study and to develop parks in their own regions. Those governments were: the Lampung Provincial Government, Riau Archipelago Government, Belitung District, Bandung City, Jakarta Province, Bekasi City, Surabaya City, the Ministry of Public Works (*Kementerian Pekerjaan Umum*), and museums. Some regions even replicated Taman Pintar, such as: Bali (Rumah Pintar), Bandung (Taman Pintar Olympic), and South Kalimantan.

The Yogyakarta City Government explained to other city/region who wanted to build their own parks that at the beginning it had limitations to develop the program, partnership, and promotions. The reason was that the Taman Pintar was seen as a governmental agency that had to obey rules and regulations applied. It was seen as an obstacle for innovations and creativities that they wanted to apply. To overcome this, the Yogyakarta City Government agreed to continuously do consultations,

coordination, and discussions with related institutions, either within the city government, the provincial government, and the central government.

Other supporting factors need to be paid notice by other regional/city government are: the support from the head of region, ability to innovate, partnerships, and how to apply service paradigm to the society. Other factors are survey, comparative study, situation analysis, etc.

## Contacts

- 1. Drs. Wasto, SH., MH**  
Head of Health and Landscape Agency, Malang City  
Jl. Bingkil No. 1, Malang  
Phone 0341 369377
- 2. Rahmat Hidayat, ST**  
Malang Waste Bank  
Jl. S. Supriyadi No. 38, Malang  
Phone 0341 341618  
Mobile: 0812 35214545
- 3. Imam Yulianto**  
Public Relation and Partnership Manager of APEKSI  
Rasuna Office Park III 3<sup>rd</sup> Floor Unit WO. 06-09  
Rasuna Epicentrum Complex  
Jl. Taman Rasuna Selatan, Jakarta Selatan 12960  
Phone 021 83704703 Fax. 021 83704733  
Email: imam@apeksi.or.id

Source:



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*(<http://www.apeksi.or.id>)*

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*Best Practice 9th Edition, 2015*



# List of Authors and Contributors

## Report Chapters

### Introduction

Ir. Tjuk Kuswartojo – Researcher

### Urban Demography

Dr. Rudy P. Tambunan, MS, – Department of Geography, Universitas Indonesia

Ir. Danny Sutjiono – Senior Expert

Dr. Drs. Chotib, MSi, – Demographic Institute, Universitas Indonesia

Syarifah F. Syaukat, SSi, MSi, – Department of Geography, Universitas Indonesia

Dr. (Can) Ir. Hj. Beti Nurbaiti, M.E – Universitas Indonesia

Fathi Hashilah, SSi, – Universitas Indonesia

### Land Use and Urban Planning

Prof. Dr. Ir. Tommy Firman, MSc, – School of Architecture, Planning and Policy Development, Institut Teknologi Bandung (ITB)

Ir. Iman Soedradjat, MPM – Senior Expert

Dr. Ir. Iwan Kustiwan, MT, – School of Architecture, Planning and Policy Development, Institut Teknologi Bandung (ITB))

Delik Hudalah, ST, MSc, PhD – School of Architecture, Planning and Policy Development, Institut Teknologi Bandung (ITB)

### Environment and Urbanization

Prof. Ir. Joni Hermana MScEs, PhD – Institut Teknologi Sepuluh November (ITS)

Ir. Joessair Lubis, CES – Senior Expert

Ir. Teti Armianti Argo, MES, PhD – Institut Teknologi Bandung (ITB)

Ir. Kemal Taruc, MBA, MSc, – Action Researcher, Collaborative Urban Learning (CUL), Jakarta.

### Urban Governance and Legislation

Dr. Ir. Wicaksono Sarosa, MCP – Executive Director Partnership for Governance Reform (Kemitraan)

Ir. M. Sjukrul Amin, MM – Senior Expert

Ir. Wahyu Mulyana, MA – Executive Director Urban Research and Development Institute (URDI)

Ir. Holi Bina Wijaya, MUM – Universitas Diponegoro

Ir. Andi Oetomo, MPI – Institut Teknologi Bandung (ITB)

### Urban Economy

Komara Djaja, SE, MSc, PhD – Center for Urban and Regional Studies, Universitas Indonesia

Ir. Wahyono Bintarto, M.Sc. – Senior Expert

Dr. Hera Susanti, SE, MSc – Department of Economics, Faculty of Economics, Universitas Indonesia

Maria Agriva, SE, MSc – Department of Economics, Universitas Indonesia

### **Housing and Basic Services**

Prof. Ir. Johan Silas, Senior Researcher – Laboratory for Housing and Human Settlements, Institut Teknologi Sepuluh November (ITS)

Ir. Susmono – Senior Expert

Ir. Purwanita Setijanti, MSc, PhD – Senior Researcher, Laboratory for Housing and Human Settlements, Institut Teknologi Sepuluh November (ITS)

Rita Ernawati, ST, MT – Researcher, Laboratory for Housing and Human Settlements, Institut Teknologi Sepuluh November (ITS)

### **Futures Challenges**

Ir. Kemal Taruc, MBA, MSc – Action Researcher, Collaborative Urban Learning (CUL), Jakarta.

### **Best Practices**

Dr. Ir. Lana Winayanti, MCP – Coordinator Directorate for Housing Finance System, Directorate General for Housing Finance, Ministry of Public Works and Housing.

## **Contributors**

Dr. Sonny Harry Budiutomo Harmadi – Faculty of Economy, Universitas Indonesia

Dr. Agus Heruanto Hadna – Center for Population and Policy Studies, Universitas Gadjah Mada (UGM)

Drs. H. Agus Djoko Witiarso, ST, MSc – Head of Surakarta Regional Planning Board

Ir. Ahyani Sidik – Head of Surakarta Public Works Agency

Sriyono, SH, MKn – Head of Surakarta Land Agency

Muhammad Sani Roychansyah, ST, MEng, Deng – Architecture and Planning Department, Universitas Gadjah Mada (UGM)

Prof. Dr. Charles Suryadi – Faculty of Medicine, Universitas Katolik Atmajaya

Dr. Ir. Firdaus Ali, MSc – Universitas Indonesia

Hamzah Latief, PhD, Eng, MSi – Institut Teknologi Bandung (ITB)

Dr. Tri Wahyu Hadi, MSc – Institut Teknologi Bandung (ITB)

Rita Tisiana Dwi Kuswardani, PhD – Ministry of Marine Affairs and Fisheries

Dr. Ir. Wahyu Utomo, MA – Senior Advisor to the Minister of Economic Affairs for Regional Development.

Dr. Ir. Moh. Muqoffa, MT – Universitas Nasional Sebelas Maret (UNS)

Prof. Ir. Bakti Setiawan, MA, PhD – Head of Architecture and Planning Department, Universitas Gadjah Mada (UGM)

Ir. Winny Astuti, MSc, PhD – Lembaga Penelitian dan Pengabdian Masyarakat, Universitas Nasional Sebelas Maret (UNS)

Dr. Yayat Supriyatna, MSP – Fakultas Arsitektur Lansekap dan Teknologi Lingkungan, Universitas Trisakti Jakarta

Ir. Ismet Belgawan, MSc, PhD – Institut Teknologi Bandung (ITB)

Ir. Putu Rudy Setiawan, MSc – Institut Teknologi Sepuluh November (ITS)

Dr. Ir. Aca Sugandhy, MSc – Lecturer, Master Program in Environmental Science, Universitas Indonesia

Ir. Dodo Juliman – NGO Combine

Setyono Djuandi Darmono – President Director of Jababeka Industrial Estate

Ir. Hyanto Wihadhi – Director of Jababeka Industrial Estate

Ir. Nirwono Yoga, MLA, – Universitas Trisakti

Ir. Igenesjz Kemalawarta – Director of BSD City

Ir. Mohammad Jehansyah Siregar, MT., Ph.D – Institut Teknologi Bandung (ITB)

Dr. Aris Ananta – Universitas Indonesia

Dhani Muttaqin – Ikatan Ahli Perencana (*Indonesian Association of Planners*)

M. Kamal – National Housing and Urban Corporation (*Perumnas*)

Zakie Muttaqien – *Ikatan Arsitek Indonesia (Indonesian Institute of Architects)*

## Moderators

Dr. Ir. Ruchyat Deni Djakapermana, M.Eng – Senior Expert to the Director General of Human Settlements on Habitat and Urban Development

Ir. Tjuk Kuswartojo – Researcher

Ir. Kemal Taruc, MBA, MSc, – Action Researcher, Collaborative Urban Learning (CUL), Jakarta.

Dr. Ir. Lana Winayanti, MCP, – Senior Advisor to the Minister of Public Works and Housing for Social Cultural and Community Participation, Ministry of Public Works and Housing

## Government Counterparts

### Urban Demography

Ir. Mochammad Natsir, MSc – Director for Water Supply Development, Directorate General of Human Settlements, Ministry of Public Works and Housing

Ir. Hayu Parasati, MPS – Director for Urban and Rural Development, Deputy of Regional Development and Local Autonomy, Ministry of National Planning and Development

### Land Use and Urban Planning

Ir. Hadi Sucahyono, MPP, PhD – Director for Settlement Development, Directorate General of Human Settlements, Ministry of Public Works and Housing (2014-2015)

Dr. Dadang Rukmana, SH, CES, DEA – Director for Urban Planning and Development, Directorate General of Spatial Planning and Development, Ministry of Public Works and Housing (2013-2015)



## **Environment and Urbanization**

- Ir. Muhammad Maliki Moersid, MCP – Director for Environment Sanitation Development, Directorate General of Human Settlements, Ministry of Public Works and Housing (2014-2015)
- Ir. Wahyuningsih Darajati, MSc. – Director for Environment Development, Deputy of Natural Resources and Environment, Ministry of National Planning and Development
- Asistant Deputy for Environtmental Planning, Ministry of Environment and Forestry.

## **Urban Governance and Legislation**

- Ir. Adjar Prayudi, MCM, MCE – Director for Building and Neighborhood Development, Directorate General of Human Settlements, Ministry of Public Works and Housing
- H. Edi Sugiarto, SH, MSi – Director for Spatial Planning and Environment Facilitation, Directorate General of Regional Development, Ministry of Home Affair.
- Ir. Dadang Sumantri Mochtar – Director for Urban Planning, Directorate General of Regional Development, Ministry of Home Affairs

## **Urban Economy**

- Ir. Antonius Budiono, MCM – Director of Program Development, Directorate General of Human Settlements, Ministry of Public Works and Housing (2010-2015)
- Dr. Ir. Lana Winayanti, MCP – Coordinator Directorate for Housing Finance System, Directorate General for Housing Finance, Ministry of Public Works and Housing.

## **Housing and Basic Services**

- Ir. Dadan Krisnandar – Secretary Directorate General of Human Settlements, Ministry of Public Works (2012-2015)
- Dr. Ir. Eko Heripoerwanto, MCP – Secretary Directorate General of Housing Provision, Ministry of Public Works & Housing
- Ir. Nugroho Tri Utomo, MRP – Director for Settlements and Housing, Deputy of Infrastructure, Ministry of National Planning and Development

## **Consolidating Team**

- Dr. Ir. Ruchyat Deni Djakapermana, M.Eng – Senior Expert to the Director General of Human Settlements on Habitat and Urban Development
- Dr. Ir. Lana Winayanti, MCP, – Senior Advisor to the Minister of Public Works and Housing for Social Cultural and Community Participation, Ministry of Public Works and Housing
- Ir. Tjuk Kuswartoyo – Researcher
- Ir. Kemal Taruc, MBA, MSc, – Action Researcher, Collaborative Urban Learning (CUL), Jakarta.
- Ir. Hayu Parasati, MPS – Director for Urban and Rural Development, Deputy of Regional Development and Local Autonomy, Ministry of National Planning and Development
- Ir. Hendropranoto Susilo, MPW – Senior Expert
- Ir. Teti Armianti Argo, MES, PhD – Institut Teknologi Bandung (ITB)

## Editing Team

Dr. Ir. Ruchyat Deni Djakapermana, M.Eng – Senior Expert to the Director General of Human Settlements

Dr. Ir. Lana Winayanti, MCP, – Senior Advisor to the Minister of Public Works and Housing for Social Cultural and Community Participation, Ministry of Public Works and Housing

Ir. Teti Armianti Argo, MES, PhD – Institut Teknologi Bandung (ITB)

Septian S Permana – Habitat National Secretariat (Seknas Habitat)

Melda Magiafitri – Habitat National Secretariat (Seknas Habitat)

## Steering Committee

Dr. Ir. Andreas Suhono, MSc, – Director General of Human Settlements, Ministry of Public Works and Housing (2015 – present)

Ir. Imam S. Ernawi, MCM MSc, – Director General for Human Settlements, Ministry of Public Works and Housing (2013-2015)

Ir. Rido Matari Ichwan, MCP, – Senior Advisor to the Minister of Housing for Economic and Investation, Ministry of Public Works and Housing

Dr. Ir. Ruchyat Deni Djakapermana, M.Eng – Senior Expert to the Director General of Human Settlements

## Habitat National Secretariat

**Chairman** : Ir. Rina Agustin Indriani, MURP – Secretary Directorate General for Human Settlements, Ministry of Public Works and Housing

**Vice Chairman** : Ir. Dwityo Akoro Soeranto, MURP – Director of Integration on Settlements Infrastructure, Directorate General for Human Settlements, Ministry of Public Works and Housing

**Daily Secretary** : Ir. Edward Abdurrahman, M.Sc – Sub-Director for Integration, Planning and Partnership , Directorate of Integration on Settlements Infrastructure, Directorate General for Human Settlements, Ministry of Public Works and Housing

**Staff** : Yuke Ratnawulan, Septian S Permana, Tri Marchellia Utami, Melda Magiafitri.



# Glossary

## A

ADIPURA	An award given for successful cities in Indonesia in managing and creating clean urban environment	
APBN	Anggaran Pendapatan dan Belanja Negara	National Revenue and Expenditure Budget
APBD	Anggaran Pendapatan dan Belanja Daerah	Local Revenue and Expenditure Budget
Arlindo	Arus Lintas Indonesia	Indonesian Through flow
ASDP	Angkutan Sungai Danau dan Penyeberangan	Transport Streams, Lakes, and Crossings

## B

Bapertarum - PNS	Badan Pertimbangan Tabungan Perumahan untuk Pegawai Negeri Sipil	Housing Savings Board for Civil Servants
Bappenas	Badan Perencanaan Pembangunan Nasional	National Development Planning Agency
Bapepam LK	Badan Pengawas Pasar Modal dan Lembaga Keuangan	Supervisory Agency for Capital Market and Financial Institution
BBG	Bahan Bakar Gas	Gas Fuel
BBM	Bahan Bakar Minyak	Fossil Fuel
BBNKB	Bea Balik Nama Kendaraan Bermotor	Tariff on Transfer of Motor Vehicle Title Fee
BKIA	Badan Kesehatan Ibu dan Anak	Mother and Child Health Bureau
BKPRN	Badan Koordinasi Penataan Ruang Nasional	National Coordinating Board for Spatial Planning
BKSP	Badan Kerja Sama Pembangunan	Development Cooperation Agency
BI	Bank Sentral Republik Indonesia	
BMKG	Badan Meteorologi, Klimatologi, dan Geofisika	Indonesian Agency for Meteorological, Climatological and Geophysics
BNPB	Badan Nasional Penanggulangan Bencana	National Disaster Management Agency
BPBD	Badan Penanggulangan Bencana Daerah	Local Disaster Management Agency
BPHTB	Bea Perolehan Hak atas Tanah dan Bangunan	Tariff on Right Acquisition for Land and Building
BPJS	Badan Penyelenggara Jaminan Sosial	Social Security Agency
BPN	Badan Pertanahan Nasional	National Land Agency
BPS	Badan Pusat Statistik	Statistics Indonesia
BRT	Bus Rapid Transportation	
BTN	Bank Tabungan Negara	National Savings Bank

## C

CAP	Community Action Plan	
CoBILD	Community-based Initiatives for Housing and Local Development	
CSO	Civil Society Organization	
CSR	Corporate Social Responsibility	

## D

DAK	Dana Alokasi Khusus	Specific Allocation Fund ? OK
DAU	Dana Alokasi Umum	General Fund Allocation
Dana Perimbangan		Balancing budget
DBH	Dana Bagi Hasil	Revenue Sharing Fund
DKI	Daerah Khusus Ibukota	Special Capital Region of Jakarta

## E

ERK	Efek Rumah Kaca	Greenhouse effect
ESDM	Energi dan Sumber Daya Mineral	Energy and Mineral Resources

## F

FOBI	Forum Outsourcing Bank Indonesia	
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## G

GHG	Gas rumah kaca (GRK)	Greenhouse Gas
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## H

HDI	Human Development Index	
I		
ICT		
IKB	Indeks Keberlanjutan	Sustainability Index
Inpres	Instruksi Presiden	President's Instruction
IOD	Indian Ocean Dipole	
J		
Jabodetabekjur	Jakarta – Bogor – Depok – Tangerang – Bekasi – Cianjur	
JFP	Jabatan Fungsional Perencana	Functional Planner Position
JKN	Jaminan Kesehatan Nasional	National Healthcare Insurance
K		
Kartamantul	Yogyakarta – Sleman – Bantul	
KB	Keluarga Berencana	Family Planning
KBI	Kawasan Barat Indonesia	West Region of Indonesia
Kemenpera	Kementerian Perumahan Rakyat	Ministry of Housing
Kemen PU	Kementerian Pekerjaan Umum	Ministry of Public Works
Kepres	Keputusan Presiden	Presidential Decree
KHA	Konvensi Hak Anak	Child Right Convention
KIP	Kampung Improvement Program	
KLA	Kota Layak Anak	Livable City for Children
Komnas HAM	Komisi Nasional Hak Asasi Manusia	National Commission for Human Rights
KPPOD	Komite Pemantauan Pelaksanaan Otonomi Daerah	Monitoring Committee for the Implementation of Regional Autonomy
KPR	Kredit Pemilikan Rumah	Credit for Home Ownership
KRA	Kota Ramah Anak	Child Friendly City
KSN	Kawasan Strategis Nasional	National Strategic Region
KSPPN	Kebijakan dan Strategi Pembangunan Perkotaan Nasional	National Urban Development Policy and Strategy
KTI	Kawasan Timur Indonesia	East Region of Indonesia
L		
LED	Light Emitting Diode	
LPG	Liquid Petroleum Gas	
LP2B	Lahan Pertanian Pangan Berkelanjutan	Sustainable Food-Crop Agricultural Land
LPS	Lembaga Penjamin Simpanan	Savings Guarantor Institution
LRT	Light Rail Transit	
LSM	Lembaga Swadaya Masyarakat	Non-Government Organization
M		
MBR	Masyarakat Berpenghasilan Rendah	Low Income People
MDG's	Millenium Development Goals	
MP3EI	Master Plan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia	Master Plan for Acceleration and Expansion of Indonesia's Economic Development
MP3KI	<i>Masterplan Percepatan dan Perluasan Pengurangan Kemiskinan Indonesia</i>	Master Plan for Acceleration and Expansion of Indonesia's Poverty Alleviation
MRT	Mass Rapid Transportation	
Musrenbang	Musyawahar Perencanaan Pembangunan	'Deliberated' Development Plan
N		
NCICD	National Capital Integrated Coastal Development	
NDP	Neighborhood Development Plan	
NGO	Non – Government Organization	
NKRI	Negara Kesatuan Republik Indonesia	Unitary State of Republic of Indonesia

NSPM	Norma, Standar, Prosedur, Manual	Norm, Standard, Procedure, Manual
NUSSP	Neighborhood Upgrading and Shelter Sector Project	
<b>O</b>		
OJK	Otoritas Jasa Keuangan	Financial Service Authority
OMS	Organisasi Masyarakat Sipil	Civil Society Organization
<b>P</b>		
PAD	Pendapatan Asli Daerah	Locally Generated Revenue
Pamsimas	Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat	Community-based Drinking Water and Sanitation Provision
PBB	Perserikatan Bangsa-Bangsa	United Nations
PBB	Pajak Bumi dan Bangunan	Property Tax
PBB-P2	Pajak Bumi dan Bangunan sector Pedesaan dan Perkotaan	Property Tax for Urban and Rural Sector
PDAM	Perusahaan Daerah Air Minum	Regional Water Utility Company
PDB	Produk Domestik Bruto	Gross Domestic Product
PDRD	Pajak Daerah dan Retribusi Daerah	Local Tax and Retribution
Pemda	Pemerintah Daerah	Local Government
Perda	Peraturan Daerah	Local Regulation
Permendagri	Peraturan Menteri Dalam Negeri	Regulation of Ministry of Home Affairs
Perum Perumnas	Perusahaan Umum Perumahan Nasional	National Housing and Urban Development Corporation
PKB	Pajak Kendaraan Bermotor	Motor Vehicle Tax
PKH	Program Keluarga Harapan	Family Hope Programme
PKL	Pusat Kegiatan Lokal	Local Activity Center
PKN	Pusat Kegiatan Nasional	National Activity Center
PKW	Pusat Kegiatan Wilayah	Regional Activity Center
PLEA	Passive Low Energy Architecture	
PLN	Perusahaan Listrik Negara	State Electricity Company
PLP2K-BK	<i>Penanganan Lingkungan Perumahan dan Permukiman Kumuh Berbasis Kawasan</i>	Area-based Slum Housing and Settlement Upgrading
PMA	Penanaman Modal Asing	Foreign Capital Investment
PMDN	Penanaman Modal Dalam Negeri	Domestic Capital Investment
PNPM	Program Nasional Pemberdayaan Masyarakat	National Program for Community Empowerment
PTSP	Pelayanan Terpadu Satu Pintu	One Stop Service
PPNS	Penyidik Pegawai Negeri Sipil	Civil Servant Investigator
P2BPK	Pembangunan Perumahan Bertumpu Pada Kelompok	Community Based Housing Development
P2KP	Program Penanggulangan Kemiskinan di Perkotaan	Urban Poverty Management Program
P2KH	Program Pengembangan Kota Hijau	Green City Development Program
P3KP	Program Penataan dan Pelestarian Kota Pusaka	Heritage City Conservation and Management
Prona	Program Sertifikasi Nasional	National Program on Land Certification
PUG	Pengarasutamaan Gender	Gender Mainstreaming
Pusbindiklatren	Pusat Pembinaan Pendidikan Pelatihan Perencanaan	The Center for Planners Development, Education, and Training
<b>R</b>		
RAN API	Rencana Aksi Nasional Adaptasi Perubahan Iklim	National Action Plan for the Adaptation of Climate Change
RDTR	Rencana Detail Tata Ruang	Detailed Spatial Plan
RPJMD	Rencana Pembangunan Jangka Menengah Daerah	Local Mid-Term Development Plan
RPJMN	Rencana Pembangunan Jangka Menengah Nasional	National Mid-Term Development Plan
RPJPN	Rencana Pembangunan Jangka Panjang Nasional	National Long-Term Development Plan



RSDK	Rehabilitasi Sosial Daerah Kumuh	Slum Area Social Rehabilitation
Rusunami	Rumah Susun Milik	Owner-Occupied Apartment
Rusunawa	Rumah Susun Sewa	Rental Apartment
RTBL	Rencana Tata Bangunan dan Lingkungan	Building and Environmental Plan
RTH	Ruang Terbuka Hijau	Green Open Space
RTRW	Rencana Tata Ruang Wilayah	National Spatial Plan
RTRWK	Rencana Tata Ruang Wilayah Kota	Municipal Spatial Plan
RTRWKab	Rencana Tata Ruang Wilayah Kabupaten	Regency Spatial Plan
RTRWP	Rencana Tata Ruang Wilayah Provinsi	Provincial Spatial Plan
RWH	Rain Water Harvesting	
<b>S</b>		
Sanimas	Sanitasi berbasis masyarakat	Community-based sanitation
SARA	Suku, Agama, dan Ras	Ethnic, Religion, and Race
SDM	Sumber Daya Manusia	Human Resources
SMF	Sarana Multigriya Finansial	Secondary Mortgage Corporation
SP	Sensus Penduduk	Population Census
SPM	Standar Pelayanan Minimum	Minimum Service Standard
SPN	Sistem Perkotaan Nasional	National Urban System
SPP	Standar Pelayanan Perkotaan	Urban Service Standard
STBM	Sanitasi Total Berbasis Masyarakat	Community-based Total Sanitation
SUSENAS	Survey Sosial Ekonomi Nasional	National Social Economic Survey
<b>U</b>		
UDGL	Urban Design Guidelines	
UGM	Universitas Gajah Mada	Gajah Mada University
UHI	Urban Heat Island	
Uji KIR	Assessment to check whether the motor vehicle parts meet the technical requirements	
UNESCAP	United Nations Economic and <i>Social</i> Commission for Asia and the Pacific	
UNESCO	<i>United Nations Educational, Scientific and Cultural Organization</i>	
UNFCC	<i>United Nations Framework Convention on Climate Change</i>	
UU	Undang-Undang	Law





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