

Community Participation in Slum Upgrading Programme

Settlement upgrading for alleviating poverty in Surabaya - Indonesia;
The Case of Kampung Tanjungsari

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I am Andarita Rolalisasi from Surabaya, Indonesia an. I am an architect and researcher at the Laboratory for Housing and Human Settlements, Institute of Technology Sepuluh Nopember (ITS) Indonesia since 2003. I was involved in design of development plan for Surabaya city such as the Surabaya-Madura Bridge (Suramadu) area. I have assisted in several projects such as in technical assistant several community mobilizations and empowerment processes in slum areas of the Surabaya city.

According to Revised of Surabaya Master plan 2004, slum areas are found in 23 sub districts of 162 sub-districts in Surabaya. Surabaya government have been implemented many programs of slum upgrading such as C-KIP (Comprehensive-Kampung Improvement Program), Social Rehabilitation of Slum Area (*Rehabilitasi Sosial Daerah Kumuh = RSDK*), etc. In fact, the amount of slum areas are not decrease significantly because lack of community involvement in the beginning of the program. This is a crucial time to them to propose the suitable programs. This paper would explain how the community participation in settlement upgrading programs for alleviating poverty in Surabaya, Indonesia.

The Laboratory for Housing and Human Settlements

Since 1980, the Laboratory for Housing and Human Settlements (LHHS) which is a part of the Institute of Technology Sepuluh Nopember (ITS) Surabaya, Indonesia

tries to improve the housing situation of low income people in Indonesia especially Surabaya. The projects of the laboratory take place in the field of community development, urban planning, policy design and assessment and appropriate housing design. Some specific examples of these projects are the Kampung improvement program in which living conditions and housing were improved in low-income areas (kampungs), the design of a master plan for Surabaya city and the development of building codes for post-tsunami Aceh.

Shelter Situation Analysis

Indonesia's Data in General

Geography and Administration

Indonesia is located in southeast of South East Asia which between two major continents, Asia to the north and Australia to the south. It is also bordered by two major oceans, Pacific to the east and Indian Ocean to the west. The area is 1,904,443 square kilometres which is equal to four times the area of Sweden. It consists of nearly 18,000 islands, half are still UN named and only 7% are inhabited. The biggest islands are Java, Sumatra, Kalimantan, Sulawesi, and Irian Jaya. Indonesia is the fourth most populous country in the world after China, India, and USA.

According to the 2000 census, Indonesian population is about of 221.9 million people¹, 60% or more than 133 million people lived in about 7% of the total land area on the island of Java.



Figure 1: Indonesia and Surabaya

¹ www.world-gazetteer.com downloads April 21st, 2006, prediction of Indonesian population in 2006.

Surabaya's Data in General

Demography and Health

Surabaya is the capital city of East Java Province, Indonesia that is the second biggest city in Indonesia after Jakarta which the area is 326.37 square kilometres or 1.7% of total area of Indonesia.

Year	Population (people)	Density (people per square kilometres)	Growth rate (%)	Sex ratio (%)	Household	Population of household member
1980	2,017,527	6,182	2.97	95.40	486,324	4.48
1990	2,473,272	7,578	2.06	95.59	548,981	4.51
2000	2,444,976	7,491	0.5	98.20	709,991	3.66
2006	2,681,971	8,217	-	-	-	-

Table 1. Population of Surabaya²

Total fertility rate in the period 1996-1999 was 1.71% infant mortality rate per 1000 live births was 4.8% in 1996. Male life expectancy at birth (1996) reaches 63.05% per year, and female reaches 66.89% per year³. It still indicates that mothers and children's health care has not been optimized.

Economy

The average income of 23.6% of the inhabitants of Surabaya is more than 1 million rupiah a month, the income of 13.01% of the inhabitants is between 400 to 499 thousand rupiah a month, and the average income of 12.75% is of 125 to 149 thousand rupiah a month. Worse of all, the income of the rest of the citizens is less than one hundred thousand rupiah which is still far below from standard of basic needs in Surabaya, which is 686 thousand rupiah.

Labour force in Surabaya reaches 45.27% of all inhabitants or about 1.2 million people, despite the fact that 28.35% of the labour force is unemployed. The earlier literature emphasized the fact that more than half of labour force is unemployed. The sum of total productive labour force in Surabaya (15 – 64 year) in 2000 is of 1,920,600 people or 73.87%, while those aging (0 – 14 years) reach 22.56% and the rest is old ones which reach of 3.57%

² Surabaya in Figures 1987, 1997, 2000, 2004

³ www.jatim.bps.go.id, download April 1st, 2006.

The sum of total poor inhabitants in several categories, poor and real poor, in Surabaya 2004 is in average 12% or 320,999 people. The economic definition of poverty is the inability to provide the basic needs for 2,100 calories per day⁴.

Surabaya has a dualistic economic system with a formal and informal sector. Informal sector activities seem like a bigger part of business and services given by and to the people. It spreads out all over the city. These public services are mainly in the daily needs sectors and other services regarding household needs etc. Interdependencies between servers and people to be served in the society seem very strong because of the income level they have.

Shelter Related Fact and Figures

Access to Shelter

The area of Surabaya was 326.37 square kilometres in 2001 and consisted of built area reaching 62.96%⁵ of all area. The area used for housing reaches 66.76%, service area reaches 14.43%, trade area 2.79%; industry and warehouse area is 11.54%, and public facilities area 4.48%. Furthermore, the inbuilt area reaches 37.04% of all area and consists of wet field (29.02%), dry field (14.97%), fish pond (41.24%), and open space (14.77%).

Based on the housing supply, the settlement in Surabaya is divided into formal settlement and informal settlements. The formal ones are developed or built by formal institutions such as developers, companies, educational institute etc. The informal settlements are developed by community themselves. This is called Kampung⁶. According to the Master plan of Surabaya, land used for settlements in Surabaya in 2003 – 2013 is allocated to reach 53.85%⁷ of the total Surabaya area or about 17,593.75 ha. So far, the land use for settlement reached 13,711 ha in 2001⁸ therefore; there is still 3,882.75 ha available.

⁴ Macro Indicator Analyze of East Java Province 2000-2004

⁵ Research of Walk Up Apartment Developing in Surabaya, 2004

⁶ Johan Silas, 1988, Kampung in Surabaya, Kampung is a typical low income urban settlement, located in all functional parts of the city, including in the most expensive area. Kampung is therefore not a slum nor a squatter.

⁷ Master plan of Surabaya 2003 - 2013

⁸ Research of Walk Up Apartment Developing in Surabaya, 2004

Out of 13,711 ha used for settlements, 63.34% have private ownership status, 19.35% are land leasing, 11.17% are housing leasing, government housing reaches 0.17%, land of free rent reaches 3.84% and the rest, 2.13%⁹ are informal settlements. Concerning informal settlements, they are inhabited by migrants who can not afford suitable houses. These low income people have chosen homes which have cheaper prices for rent. The high cost of living in Surabaya makes them unable to have other choices but to live in squatter settlements or unplanned growing regions close to their work place. The informal settlement in Surabaya spreads in 23 locations where there are 11,416 households with a total of 36,208 inhabitants.

From the point of view of physical and quality aspects of building, the percentage of households with a floor area of less than 50 square metres, reaching 66.61%. Furthermore, the percentage of households using primary construction materials for the roofs of living quarters reaches 99.22% of all households in Surabaya. Meanwhile, households using brick walls for their living quarters reach 75.45%, and those using a floor for the living quarters reach 77.36%¹⁰. Every year sees a decrease of building quality of about 2% compared to the previous year. Almost three quarters of the inhabitants have permanent residency. But a quarter all of inhabitants that have no permanent residency are a big percentage.

Access to and cost of Basic Services/Infrastructure

The percentage of households using final disposal with septic tank reaches 39.17%¹¹, while some others use direct disposal to the river, which causes environmental problems in Surabaya since water of the Surabaya River is the main raw material of PDAM, while the rest uses the '*jumbleng*' system, direct disposal to ground. Due to the limited area, conditions for disposal sewerage system in informal settlement in slum area can't meet the health requirements in which the distance between final disposal and ground water sources must be at least ten metres.

Households covered by the state owned water supply company (PDAM = *Perusahaan Daerah Air Minum*) and use ground water directly¹² for their clean

⁹ Research of Walk Up Apartment Developing in Surabaya, 2004

¹⁰ www.jatim.bps.go.id, download April 1st, 2006

¹¹ Surabaya in Figure 2004, but in fact that has indicate to be better

¹² PDAM (*Perusahaan Daerah Air Minum*) is state owned water supply company. Directly means has pipe from main pipe

water supply reached 74.09%¹³. And the others get clean water from the surrounding area.

Year	Transportation				Telephone Connection (household)	Electricity (household)	Drinking water consumer by PDAM (household)
	Private		Public				
	Car	Motor cycle	Bus	Car			
1990	45,557	456,596	4,227	-	51,209	316,958	116,257
2000	50,302	684,790	10,177	8,042	445,033	588,152	248,491
2004	60,803	691,021	11,159	11,897	492,832	655,474	308,482

Table 2. Transportation and Public Services¹⁴

Traffic congestion and pollution are the main problems in a big city like Surabaya with 2.6 million inhabitants. The tendency that people use personal vehicles is due to the fact that public transportation is not practical and expensive.

Health care centres cover all of the Surabaya area; however the general hospital with complete facilities is in the centre city of Surabaya. It consists of 65 hospital units that include general hospitals, maternity hospitals, optic clinic, mental hospital, and internal hospital; 52 units public health and 66 units sub public health; 141 units mother child medical centre; 105 units family clinic centre; 478 units dispensaries; 47 units medicine shop¹⁵.

Access to and cost of Education

In general, the description of education in Indonesia is like a pyramid, the higher the education level is the less students there are. This is supported by data which shows that the number of students of elementary school reaches 276,387. And this figure is declining when they go to higher education which is 107,100 for junior and 117,407¹⁶ for senior high school. However, the government has committed to set the target for nine years of compulsory education, so Indonesian people have at least graduated from junior high school.

¹³ www.jatim.bps.go.id download April 1st, 2006

¹⁴ Surabaya in Figure 2004

¹⁵ Surabaya in Figure 2004

¹⁶ Surabaya in Figure 2004

Existing Housing Policy

The Indonesian Regulation, the 4th version of 1992 is the arrangement of National and Strategic Policies on Housing and Settlement, consisting of:

- The policy of developing and institutionally strengthening housing and settlement.
- The housing provided for poor and low income inhabitants.
- The development of a clean, safe, healthy, harmonious and sustainable environment.

A specific example of this arrangement is the 1:3:6 rule. When private sector companies build one high cost house, they have to build three medium cost and six low cost houses. This policy was implemented to provide for the housing need of the community.

On October 9th, 2003, the government of Indonesia made the commitment and set the target to provide one million housing units for the low-income families in all provinces of Indonesia. It is assumed that one family would stay in one house, hopefully one million low income families would be able to live in their new built or renovated houses. The adequate living quarter is defined as the one having:

- An occupation rate of 7 – 9 square metres per person
- The land tenure security
- A good facilities and infrastructure, especially good access to clean water and electricity connection and good sanitation.
- A quality housing construction.

Surabaya has a lot of experience in development programs for low income urban settlements¹⁷. It was started in 1924 with the focus mainly on sanitation. Starting from 1968 Surabaya introduced development programs for low income urban settlements called WR Supratman and KIP (Kampung Improvement Program) in 1976, to improve urban settlement infrastructures. After many programs have been implemented for low income urban settlements it can be noted that the program will not be successful without support from the community and their participation to improve their living condition. It's also important to make the program more

¹⁷ Surabaya Municipality and Institute of Technology Sepuluh Nopember Surabaya, The Improvement Kampung Program in Surabaya 1969 – 1982: inventarisasi and evaluation

comprehensive regarding both physical and non-physical aspects such as social economic conditions. Based on that experience Surabaya developed a new KIP approach called Comprehensive KIP (C-KIP), which has been implemented since 1998. Also a development program for the lowest income urban settlements called Social Rehabilitation of Slum Area (*Rehabilitasi Sosial Daerah Kumuh = RSDK*) has been active since 2003.

C-KIP and RSDK are community based development programs aimed to improve the quality of kampung conditions either physical or social-economic through community organization development and empowerment. This program uses a Bottom-Up Approach to encourage participation of the community in the planning, implementation, and monitoring process until the end of the program. The program will be implemented from, by, and for the community as an integrated partnership among local government, private sectors, and the community.

The importance of introducing a new scheme of the program is to improve and empower the role and participation of the community as subject and object of development to enhance a sense of belonging of their housing environment. The mission of the local government implementing this program is to strengthen community involvement in city development and make their settlements integrated housing and services systems in the urban area.

Women play an important role in the program of improving environment, either in physical or non-physical aspects. The physical aspect is indicated by their participation in what is called the PKK¹⁸ program such as greening and environmental clean lines, the healthy kampung, 'jimpitan'¹⁹, etc. In which it aims at improving the physical conditions of their environment while the non-physical aspect is shown by participation to strengthen the socio-economy of their families.

Actors in Shelter Delivery and their Roles

The stakeholders involved in shelter delivery in Surabaya are the local government, private-sector housing producers, community organizations, and research institutions. The local government provides regulations for housing systems concerning distribution, development, and planning. The private-sector housing

¹⁸ PKK (*Pendidikan Kesejahteraan Keluarga* = Education for Family Welfare) is the association of community women which is aimed at promoting women empowerment.

producers are classified as low, medium, and big housing, as well as independent housing by communities called kampung. The research institutions are doing research on all housing aspects, the level of the housing need fulfilment, and the adequateness of infrastructure. Research institutions also do research on predictions of needed housing in the future to achieve a better living environment.

Design

As mentioned above, 53.85% of Surabaya's area is allocated for housing. 77.93% of this number is already in use. The typology of the housing in Surabaya is kampung, walk up apartment, low cost housing, high cost housing, apartment, shop house²⁰, slum area and marginal settlement. A part of housing is produced by housing producers at the high, medium, and low level, or by community themselves like the kampung. The walk up apartment built by the government to fulfil low income people demand has the lowest tariff standard with adequate infrastructure. The low cost housing is subsidized by the government, which can be produced by the public or private sectors. Consumer targets for the high cost housing are the middle up to high level income classes. They can choose living in apartments that are mostly the same with walk up apartments, but with a different consumer target. These are produced by the private sector. Meanwhile, the shop houses fulfil the requirement of business areas and housing in some areas. Slum areas are neglected parts of the city where housing and living conditions are appallingly poor. Slums range from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities. The marginal settlements are slum areas that are not intended for building such as river bank, green space, on the side of the road, etc.

Tanjungsari Sub District in General

Tanjungsari sub district, Sukomanunggal district population is about of 12,142 people or 3,235 households. While resident occupying area alongside train rail a long time is about of 200 households. They occupied unknowingly the original owner and

¹⁹ *Jimpitan* is spending our few of daily rice consumption for neighbourhood helping program

²⁰ Shopping house (*rumah toko/ruko*) is the building that used to shop and house function together, usually shop function at first level and house at above.

status of land. Actually, the land was a rice field had by some people that they had sold it without know the real border of land so there were rest of land which now occupied by dweller. In the beginning, because of that they assumed lived in the squatter. After passed the long process since 2002 – 2004, they can to be the legal owner of the land, after buy it from the real owner.



Figures 2 and 3: Living Conditions in Tanjungsari Sub District

The area of alongside train rail that 3 meters length without clean water infrastructure and telephone connection. Households using brick walls for their living quarter reach 70% with minimum ventilation because of use the same wall each other, meanwhile the others use wood. Almost inhabitant is an informal sector worker such as a food saller, stall trader, fabric labor, *becak* driver, construction labor, etc.

Unacceptable Living Conditions

They have no basic municipal services, such as; water, sanitation, waste collection, drainage, street lighting, roads for emergency access, also they have no places for the community to meet and socialize. The high density area worst in fire, the vehicle of fire difficult to reach the area when happened of fire because of without roads for emergency access. The house design problem point of view is minimum lighting and natural ventilation that worst in the health of inhabitant so they often get the disease such as dysentery, diarrhea, etc.

The other problem is that they are living in the dangerous area. They are only a parting 7 meters of rail ace, and dissociated by alley 1.5 meters. Also there are three points to across of the rail so dangerous to bump by train. Beside that, the main of income generation from informal sectors.

Until now, there are none environment programs established in this area to achieve better living condition since this area is recognized as slum area still. Furthermore, the community are lack of educations to live in the better ways such as the knowledge about cleanliness, healthy life, etc.

Need for Slum Upgrading

In community participation, many people are involved in the community's activities. Communities seeking to empower themselves can build active participation by welcoming it, creating valuable roles for each person, actively reaching out to build inclusive participation, and creating and supporting meaningful volunteer opportunities. ²¹

The slum upgrading program can be divided into three aspects, there are improving of human resources, social welfare, and quality of environment. The program can meet the aim if supported by all stakeholders. The stakeholders involved are community, education institution, government, NGO, and private sector. It is very crucial to know what the community needs is. It is also necessary to the community to obtain technical assistance at the beginning of the program to formulate their specific needs.

The informal settlements seem slum that is mostly inhabited by migrants, who live there to live closer to their workplace. They lived lack infrastructure such as save water, drainage, etc; lack of health knowledge, as a consequence children often affected diseases from environmental deterioration; they lived at high density area so bad healthy living environment.

Slum upgrading consists of physical, social, economic, and environmental improvements that are done in partnership with citizens, community groups, businesses, and local authorities. These improvements often focus on introducing or improving basic service provision, mitigating environmental hazards, regularizing security of tenure, providing incentives for community management and maintenance, and improving access to health care and education.

Regarding the informal income generation sector, for a poor family in a slum, their home is a productive asset – it is a workplace and warehouses. So their home should productive for themselves.

According to field research data, the slum upgrading development program suitable to potencies and their own problem. The goals of program are:

- Community empowerment to strengthened initiative, creativity, and independency in the implementation of development programs.

- Comprehensive development that are physically aspect, facilities and basic facilities, and community social economic condition to raise quality of settlement environment.
- Improving ability of effort in order to development of income generation of which support local economy.

There are about 200 households or about 15% of population of Tanjungsari lives alongside the train rail. Although there are several slum upgrading programs implemented in this sub-district before 2004, i.e. Social Rehabilitation of Slum Area Program and improving quality of settlement environment program, unfortunately the programs cannot be implemented in the train rail area since the inhabitants are categorized as illegal community.

In 2005 the improving of settlement environment program implemented in Tanjungsari sub-district including the alongside train rail area. Based on the settlement physical condition, they still need to improve the housing quality to fulfil standard requirement, to improve the environment, and increase their income generation.

Proposal for Upgrading with Community Participation

Surabaya has a lot of experience in development programs or community based development for low income urban settlements. After many programs have been implemented for low income urban settlements it can be noted that the program will not be successful without support from the community and their participation to improve their living condition. It's also important to make the program more comprehensive regarding both physical and non-physical aspects such as social economic conditions.

The LHHS – ITS Surabaya, Indonesia, would arrange a schema of the program, provide technical assistance to community, and be in charge in monitoring and evaluation process with the community and local government, all together to maintain the sustainability of the program.

The recommendation as below cannot be implemented without agreement of the community therefore there is a need for the community participation. Base on the

²¹ J. Norman Reid, Community Participation; How People Brings Sustainable Benefits to

analyses made, there are several recommendations for better living conditions of Tanjungsari, as described below:

A. The components of slum upgrading are:

1. Improvement of human resources and community empowerment such as the foundation management training, the skill training, etc.
2. Establish and strengthen the kampong foundation that for manage of program in the community.
3. Improvement of small and medium scale business which opening opportunity in order to raise level society such as small and medium scale business training and provided grant for the business.
4. Housing improvement that to improve quality of the house and land tenure.
5. Physical environment improvement that improving the overall environmental quality of the respective kampong.
6. Greenery and environmental cleanness that supplying and planting family medicine plants and greenery trees to restrain pollution and waste family.

B. The processes of slum upgrading divided in to fourth phases are:

1. The preparation phase
2. The planning phase
3. The implementation phase
4. The monitoring and evaluation phase

The components of preparation phase are:

1. Program socialization; the community should know well about the program and then they involve since beginning. This activity should attend by all element of inhabitant.
2. Self community mapping, to find physically and non physically condition that related the settlement standard and the community custom.
3. Verification of poor family data needed to validation the existing data of government with the community.
4. Establishing and strengthen *Yayasan Kampung* (Kampung Foundation) for manage the program

The second phase is planning of program. The aim of phase is to know the direction of development, which will do it, and what will they do for the growth of them. The components of phase are:

1. Priority program proposal, which cover all program proposal of community, and compile by priority in short term (2 year) and middle term (5 year)
2. Planning program that the detail of program will do. This planning have mentioned to arrange location situation, activity types, amount of activity need, quality standard and requirement of activity (from government/ local institution), execution duration and return (business activity).
3. Resource support, covering materials (made locally), energy (skillful local) and fund (also loan guarantee if needed).
4. Program implementation scheme which are preparation of location, who'll group implemented, managing, observing and responsibilities (including certainty of the payment of loan).

The third phase is implementation of program which are:

1. Implementation of program as has been planned.
 - Improvement of human resources and community empowerment
 - Improvement of small and medium scale business
 - Housing improvement
 - Physical environment improvement
 - Greenery and environmental cleanness
2. Technical assistant of program

The last is monitoring and evaluation of program which are:

- Monitoring of program
- Evaluation of program to be better program in the next.

Action Plan

Year	Duration	Activities *	Actors				
			Com	LG	NGO	EI	
1	2 weeks	Program Socialization					
	2 weeks	Self community mapping		-			
	2 weeks	Data verification					
	2 weeks	Establishing kampong foundation					
	4 weeks	Strengthened kampong foundation					
	2 weeks	Resource support identification		-			
	4 weeks	Grand design program priority for 5 year period					
	2 weeks	Program implementation scheme the 1 st phase					
	48 weeks	Implementation of program the 1 st phase					
	32 weeks	Technical assistant	-	-			
	48 weeks	Monitoring					
	4 weeks	Evaluation					
	2	2 weeks	Design program priority for 2 nd year				
		2 weeks	Program implementation scheme the 2 nd phase				
48 weeks		Implementation of design program the 2 nd phase					
32 weeks		Technical assistant	-	-			
48 weeks		Monitoring					
4 weeks		Evaluation					
3	2 weeks	Self community mapping (for the latest data)		-			
	2 weeks	Data verification					
	2 weeks	Design program priority for 3 rd year					
	2 weeks	Program implementation scheme the 3 rd year					
	48 weeks	Implementation of design program the 3 rd year					
	32 weeks	Technical assistant	-	-			
	48 weeks	Monitoring					
	4 weeks	Evaluation					
4	2 weeks	Design program priority for 4 th year					
	2 weeks	Program implementation scheme the 4 th phase					
	48 weeks	Implementation of design program the 4 th phase					
	32 weeks	Technical assistant	-	-			
	48 weeks	Monitoring					
	4 weeks	Evaluation					
5	2 weeks	Design program priority for 5 th year					
	2 weeks	Program implementation scheme the 5 th phase					
	48 weeks	Implementation of design program the 5 th phase					
	32 weeks	Technical assistant	-	-			
	48 weeks	Monitoring					
	4 weeks	Evaluation					

Note:

Com : Community


LG : Local Government

NG : National Government

NGO : Non Government Organization

EI : Education Institution (my office)

* : Base on community agreement

 Primary (main)

 Secondary (support)

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