STRATEGICAPPROACH TO IMPROVE THE POOR HOUSINGSETTLEMENTS IN THE BATTICALOACITY

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ABSTRACT

The main aim of this study is to explore the housing related issues in the Batticaloa city and provide a strategic approach to improve the poor housing settlements. Primary and secondary data were used in this study. The primary data were collected through questionnaire and focus group interviews. Low income families living in huts (814) were selected from 10 GN Divisions (GNDs) out of 48 GNDs to carryout this study. The study revealed that there are 17,770 permanent houses which do not need further improvement and 2,770 semi permanent houses which need some further improvement. In addition to this, 6,518 own land temporary houses and 1,819 unauthorized temporary houses were identified in the city. The study also reveals that more than 75% of low income families have used tin sheet and cadjan for roofing. 90.17% of walls of houses were built by cadjan, wood and tin sheet. Approximately 45.58% of houses are made with cement floor while 54.06% of houses' floor were seemed sand and cow dung. Moreover, 35% of low income families do not have well. More than 58.23% of low income families do not have toilet facility as their own and 81% of low income households do not have electricity connections in their houses. The study also reported that there are many barriers to the settlement improvement in these houses such as lack of homogeneous housing policy, poor involvement of community based organizations, lack of extended municipal services, lack of livelihood support services, etc. Further, strategies, to formulate a city shelter development centre at the municipality level, strengthening of rural development societies, secure tenure of housing, upgrading of infrastructure, livelihood support for poverty reduction and improving of service of BMC are recommended to improve the housing settlements in Batticaloa city. Findings of this study will help to develop urban housing settlements and plan poverty alleviation in the Batticaloa city.

Key words: Batticaloa city, Housing, Settlement, Shelter

1. Background of the study

Batticaloa District is one of the three Districts in the Eastern Province. Batticaloa city is the main city in the Batticaloa district which is bounded on the North by the Eravur Pattu Pradeshiya Saba, on the East by the Bay of Bengal, on the South by the Kattankudy Urban Council, on the West by the Batticaloa lagoon. The administrative area of Batticaloa city is in extent of 75.09 Sq.km. Population of the Batticaloa city has been growing significantly in the last two decades. Present population of Batticaloa city is 89,191 comprising of Tamils, Muslims, Sinhalese and Burghers. Male and female are in the proportion of 48% and 52% respectively in the Batticaloa city. Population growth rate was 2.96%. Density of the city is 1,139.39 per square km. The city which constitutes only 4.7% of the district provides shelter to 15% of the total population of the district (Manmunai North DS Office, 2007).

Economy of Batticaloa city is depending on agriculture, fishing and industry such as hand loom, cement

products. There are about 608 Ha of paddy land and 6.9 Ha of highlands in the Batticaloa city. The lagoon is an important resource in Batticaloa city as it is used by a number of families for freshwater fishing and there is potential for prawn, crabs, oyster and fingerling culture. According to the Statistical Report of MN (2007), total number of lagoon fishermen is 2,611 and sea fishermen is 1,133. Total number of fishing families and fishing population are 3,501 and 11,915 in the Batticaloa city respectively.

Batticaloa was a vibrant and active city before the 1980s. Since 1983 there were the ethnic disturbances in this area. During this period many houses were destroyed. Batticaloa had recently begun to emerge from the civil war when the Tsunami hit the city on 26 December 2004, and destroyed most of its basic infrastructure that serves the poor communities. Basic roads, water supply systems, health clinics and administrative offices of the Batticaloa city have been almost washed away. One thousand five hundred and ninety four

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(1594) houses within the Municipal area have been completely destroyed and 2955 houses badly damaged.

There are 17,770 permanent houses (did not need further improvement) and 2,770 semi permanent houses (need some further improvement). In addition to this, 6,518 own land temporary houses (similar to Non Squatter) and 1,819 unauthorized temporary houses (similar to Squatter) were identified in the city (DS office MN, 2008). The status of the temporary houses where the poor people are living is very poor and they are not even meeting their basic needs. Presently there is peace environment. Therefore, this is the crucial time to carry out this study for improving housing settlements. The remainder of this paper will focus on problem statement, objective of the study, significance of the study, housing related literature, findings and strategies to overcome the housing related issues.

2. Problem statement

Presently a limited number of housing projects is being implemented by the governmental and nongovernmental organizations in the city. NHDA has the major role in these projects. A model town is being built with the technical assistance of NHDA for tsunami victims at Thiraimadu. Many INGOs/ NGOs have involved to build new houses for tsunami victims in the city. However, still 8,409 families are living in temporary houses without basic facilities in the city (DS office MN, 2008). In addition, there is no clear cut plan to improve the poor settlement of non tsunami affected people in the city. When poor people live in the huts without basic facilities, particularly sanitation, it creates health problems not only to them but also to the neighborhoods. Therefore, there is a great demand to formulate strategies to overcome the housing related issues. This study tries to answer the following research questions.

- RQ1. What are the most important housing related issues in the city?
- RQ2. What are the best approaches available to improve the poor settlements?

3. Objective of the study

The main objective of this study is to explore the housing related issues in the Batticaloa city and provide a strategic approach to improve the poor housing settlements.

4. Significance of the study

In the present poverty scenario, housing is a crucial element in both contributing to create poverty issues (if they spend their income to build a house then they do not have money to fulfill other basic needs) and as a tool in developing policies and programs to alleviate these issues. Yet housing is often a silent or overlooked factor in considering both the causes of poverty as well as potential remedies to alleviate poverty. The study plays a vital role in broadening and understanding of the housing related issues in the Batticaloa city. Further, the study will be very useful to develop better urban settlements without huts and plan the poverty alleviation programmes in the Batticaloa city.

5. Literature review

A review of the literature reveals diverse views regarding urban poverty and shelter development trends at the international and national levels.

Poverty is defined according to the World Bank definition, as "poverty is pronounced deprivation in well-being" (World Bank, 2000). The character of poverty is not only the material aspect where the daily survival is a struggle, but it also covers a wider dimension where the access to public goods and the vulnerability are accounted for. These entire comporents are important, as they affect the individual's behavior and the perceptions of their own situation (World Bank, 2000). The Department of Census and Statistics in Colombo (2002) defines poverty as - any barrier to prosperity and is a lack of resources and opportunities, feelings of being disenfranchised from various support systems, and diminished feelings of empowerment to obtain these resources and opportunities.

Poverty has often been seen as a purely rural problem in the past. In the coming years, urban poverty will become a major challenge for policymakers in the Asian Region. Poverty reduction approaches that have been developed for rural poverty reduction will not work in urban areas, because urban poverty is different in nature from rural poverty. To address urban poverty effectively, policymakers at the national and local levels need to have a good understanding of the nature of urban poverty as well as accurate data that present its dynamics, trends and conditions.

Urban poverty has been part of the current movement of developing ideas and experiences in the general field of poverty. This can claim a conceptual definition separated from general poverty. According to the latest U.N. estimate 2008, world population is expected to increase from 6.7 billion in 2007 to 9.2 billion in 2050. During the same time period, the report said, nearly 50 per cent of the world population will be living in urban areas. Population living in urban areas is projected to rise from 3.3 billion to 6.4 billion (UNDP, 2008). If the majority of the population lives in cities, it becomes questionable to separate urban poverty from a general concept of poverty.

"Shanties are temporary structures made of materials such as cadjan, planks and old zinc sheets. Some are squatter settlements on private, government or municipal lands constructed with or without permission of the owners and have no security of tenure. Most of the shanty settlements are located on marginal lands such as canal or river banks, road or railwayreservations and or marshy lands.

Three sub categories of shanties could be identified.

- a. Squatter: Temporary structures constructed by the encroached occupants on private or state land without the consent of the property owner.
- b. Non Squatter: Temporary structures constructed by property owner or other party with the consent of the property owner.
- c. Relocated Housing: Temporary structures constructed by the relocated or displaced families on a particular assigned land, who have compelled to move out from their early location of residence as a result of State sector development projects" (Damayanthi, 2000).

Upgrading involves the provision of the most basic services: i.e., water and sanitation, drainage, roads, footpaths, often accompanied by community facilities and security of tenure. These projects do not involve house construction since the residents can do these themselves, but often include optional loans for house improvement (The Cities Alliance, 1999).

The links and interaction between poverty, social inclusion and housing initiatives have been explicitly recognized in a number of other countries and especially in Europe. Housing plays an important role in poverty reduction strategies, notably in France, Ireland and Sweden. In other countries, while housing is not as explicitly highlighted in the Social Protection Strategy Reports, it is well integrated in related initiatives (e.g. Netherlands and the UK). Housing programs also play an important role in combating spatial concentrations of poverty and disadvantage in the US (ONPHA,2008).

The National Slum Development Program (NSDP) was launched in 1996 in India. Annually, the program provides about Rs. 4 billion in assistance. The objective of the program is slum upgrading through the provision of physical amenities, community infrastructure, health care and social amenities. Neighborhood Committees and Community Development Societies should implement NSDP at the local level. Slum Development Committees, including elected representatives from Urban Local Bodies, NGOs and community-based organizations, should oversee them. The program has both loan and subsidy components (Robert, Mahavir, and Jerry, 2007).

Slum Improvement Project (SIP) is a UNICEF-funded, community-based effort in Bangladesh to improve the slum environment, provide primary health care, and empower poor women living in these communities. Beginning in the mid-eighties, the first phase took place in 57 slums in 5 medium-sized towns. The second phase started in 1990 and by 1994 had grown to include 25 cities and towns and 185 slum clusters, reaching 40,000 women. The program emphasizes community involvement with a special focus on an "enhanced role for women in project activities." Activities are aimed at connecting existing urban services to slum communities and improving institutional capacity to work with the urban poor. The project emphasizes interagency collaboration. A three level national, city, and community management structure was the basis of the program (The World Bank Group, 2001).

The poverty problem in Sri Lanka has also been evident even before independence (Fernando, 2006). The government of Sri Lanka allocates a considerable percentage of the annual budget for national poverty reduction programs. Similarly, the problem of poverty has been given the highest priority in the policy agenda by every government in Sri Lanka. In 1994, the government of Sri Lanka gave up the assistance given to the slum and shanty settlers to upgrade their housing and initiated a new relocation program with apartments built by the government. This enabled the government to recover some valuable lands for other urban development activities.

The present official urban share of the total population is 22%, which is comprised of Municipal Council areas, Urban Council Areas and former Town Council areas. However actual percentage is considered to be approximately 30%, which is also characterized by uneven distribution where, about 70% of the urban population is concentrated in Western Region including Colombo, Gampaha and Kalutara Districts.

This has created specific housing and settlement issues in these urban areas and about 1,505 underserved settlements have been identified in Colombo City itself. Considerable numbers of underserved settlements that have not been assisted by any housing development initiatives especially in environmentally sensitive areas and reservations have suffered from the lack of basic infrastructure services and need some assistance until the se communities come to the main stream of development.

The underserved settlements that have already been regularized and where plots have been allocated for construction of houses by the poor communities in urban areas are badly affected due to the lack of individual infrastructure services and other shelter related assistance. There are low density dilapidated underserved settlements (urban slums and public servant/labour quarters) in prime urban locations with potential for urban development. A substantial number of low cost housing schemes constructed by the government on rental basis in urban areas have been affected from poor maintenance and other related issues.

Taking into consideration the above priority issues identified in underserved settlements in urban areas the housing programmes such as urbanization and the provider approach, urban renewal and construction of flats/relocation, public servants housing, site and service blocks with housing assistance, low income community development programme, REEL Program, have been implemented by the National Housing Development Authority in collaboration with urban Local Authorities, other stakeholder agencies and the participation of target communities (NHDA, 2005).

6. Methodology

Nature of the study was descriptive. The extent of researcher interference was minimal and study setting was non contrived (natural). Time horizon was cross sectional where data collection was done over a period of several weeks. Unit of analysis was poor people who are living in the huts. Primary data were collected by questionnaires, focus group interviews and observations. A self developed questionnaire was used to collect primary data on shelter in Batticaloa city. Observations were made by researchers relating to shelter condition, water and sanitation, road, electricity, etc. Ten GNDs, which consisted of the highest number of huts, has been selected among the 48 GNDs. This figure was taken after discussions with the Mayor and the Commissioner of Batticaloa Municipal Council (BMC). Questionnaires were issued to families who were living in own land temporary houses (similar to Non Squatter) and unauthorized temporary houses (similar to Squatter) in 10 GN divisions (see total in Table 1). SPSS V.16 was used to analyze the collected data. Descriptive statistics were applied to analysis the collected data.

7. The research results

Eight hundred and ninety nine (899) questionnaires were judged unusable and excluded from the data analysis. After excluding the invalid responses, the research ended with 814 valid and usable questionnaires (Table 1). The external reliability of the instrument used to collect data was examined by Test – Retest method. This test was carried out by using 10 low income families from different GN divisions with three weeks time interval. The coefficient of the Test – Retest of the instrument indicates a high external reliability 0.993 (correlation is significant at the 0.01 level - 2 tailed). Content validity of the instrument was ensured by the conceptualization and operationalization of the variables based on literatures.

Rejected questionnaire: Some of the households already have permanent houses but they are shown as temporary hutsadditionally for getting benefits (Table 1).

Unknown questionnaire: Researchers were not able to find applicants, because they have property/land in two GNDs. They are living in a particular GND permanently and have built huts in another GND to get benefits (Table 1).

Double Entry: Some houseTable 1: Identified huts in the 10 GNDsholds have submitted the
questionnaires in two copies -
first was head of household's
name and second questionnaire
was his wife/daughter's name
(Table 1).No.GN ldentified huts in the 10 GNDs1Mo.GN DivisionGNIdentified huts2Sinna Urani168D13Kokuvil176F34Nochchimunai171A5Thimimodu173E

Total: Number of issued questionnaires (Table 1).

The information from the selected 10 GNDs was analyzed to explore the present status of shelter situation in the city. One

thousand seven hundred and thirteen (1713)questionnaires were received from families and out of that 814 huts were identified from the selected 10 GNDs. Those are summarized and explained in the subsequent sections.

7.1 Family and Population

Table 2 shows demographic features of selected 10 GNDs who are living in the huts. According to the survey, 3370 persons from 814 families are living in the huts.

7.2 Socio Economic Indicators

The survey reveals that 338 out of 814 families are receiving Samuruthi benefits. Table 3 shows the employment patterns in 10 GNDs. Around 70% of people are wage labourers.

7.3 Present Housing Status

7.3.1 Roof

Table 4: Details of roof

Type of Material	Tiles	Asbestos	Tar sheet	Tin sheet	Cadjan	Other	Total
No. of Huts	136	12	01	236	428	01	814
Percentage	16.71	1.47	0.12	28.99	52.58	0.13	100.00

According to the survey (Table 4) more than 52% of huts have used cadjan for roofing. More than 28% of huts used tin sheets while 17% of huts used tiles for roofing.

7.3.2 Walls Table 5: Details of walls

Typeof Material	Bricks	Stone	Blocks	Wooden	Cadjan	Tin sheets	Clay	Other	Total
No. of Huts	46	14	06	60	324	350	12	02	814
Percentage	5.65	1.72	0.74	7.37	39.80	43.00	1.47	0.25	100.00

No.	GN Division	GN	Identified	Rejected	Double	Unknown	Total
		No.	Huts		Entry	questionnaire	
1	Manchanthoduwai South	168D	159	33	1	22	215
2	Sinna Urani	176F	142	36	39	7	224
3	Kokuvil	176	112	60	27	5	204
4	Nochchimunai	171A	106	61	39	38	244
5	Thiraimadu	173E	94	129	7	11	241
6	Thiruperunthurai	181A	55	53	13	1	122
7	Iruthayapuram West	176E	51	30	11	9	101
8	Puthumagar	181C	45	54	29	2	129
9	Punnaichcholai	173D	36	91	2	1	130
10	Mamangam	173A	14	79	-	10	103
	Total		814	626	168	106	1713

Table 2: Family and Population

No.	GN Division	GNNo.	No. of families	Population
1	Manchanthoduwai South	168D	159	682
2	Sinna Urani	176F	142	652
3	Kokuvil	176	112	436
4	Nochchimunai	171A	106	442
5	Thiraimadu	173E	94	337
6	Thiruperunthurai	181A	55	216
7	Iruthayapuram West	176E	51	210
8	Puthunagar	181C	45	202
9	Punnaichcholai	173D	36	137
10	Mamangam	173A	14	56
1	Total		814	3370

Table 3: Employment

Type of Employment	Number	Percentage
Labour	568	69.78
Fisherman	98	12.04
Other	56	6.88
Businessman	33	4.05
Farmer	13	1.60
Mason	11	1.35
Driver	10	1.23
Carpenter	9	1.11
Tailor	8	0.98
Government Servant	7	0.86
Clerk	1	0.12
Total	814	100.00

Table 5 reveals that 94% of walls of houses were built with cadjan, wood and tin sheets. It clearly shows that this percentage of houses should be considered as huts.And only less than 6% of huts were built by bricks.

7.3.3 Floor

Table 6 : Details of Floor

Type of Material	Cow dung	Cement	Tile	Sand	Total
No of Huts	13	371	3	427	814
Percentage	1.60	45.58	0.36	52.46	100.00

Table 6 indicates that approximately 54% of huts used cow dung and sand for floor while 45% of huts had cement floor.

7.3.4 Owner ship

Table 7	: Details of	Ownership
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Table 7 : Details of Ownership				ren	entage	81.00	0.00	1	9.00
Ownership	Owner	Leased	Crown Land	MC Land	Private	Reserv	ation	Total]
No. of Huts	384	50	259	75	36		10	814	1
Percentage	47.00	6.00	32.00	9.00	5.00		1.00	100.00	

Table 7 reports that more than 47% of people (living in huts) have built their huts in their own land while rest of them built their huts in leased, crown, MC, private and reservation lands. The number of huts built in crown and MC land by people in Batticaloa city is 259 and 75 respectively. Crown land includes people who are living in unauthorized lands too.

7.3.5 Extent of premises

Table 8 shows average land size (area) owned by each family who are living in huts, in 10 GNDs.

Table 8: Extent of premises

No.	GN Division	GNNo.	Average land extent in perch
1	Manchanthoduwai South	168D	9.74
2	Sinna Urani	176F	12.98
3	Kokuvil	176	12.28
4	Nochchimunai	171A	739
5	Thiraimadu	173E	13.08
6	Thiruperunthurai	181A	15.59
7	Iruthayapuram West	176E	10.46
8	Puthunagar	181C	11.68
9	Punnaichcholai	173D	11.20
10	Mamangam	173A	10.08

7.4 Infrastructure

7.4.1 Water

Table 9: Extent of water

Table 9 highlights that approximately 45% of families living in huts, have own well. Common wells are used by 4% of families. At the sametime 35% (286) of families do not have access to proper water but they are getting water from the small dig/ pond.

7.4.2 Electricity

The Table 10 reveals that there are no illegal electricity connections and 81% of families who are living in huts, do not have electricity connections while only 19% of families who are living in huts, have electricity in Batticaloa city.

Table 10 : Details of Electricity

Source		CEB	Illicit	No Electric	city	Total
	of families entage	157 81.00	0 0.00		557 9.00	814 100.00
	Duinata	D		Tetal		

MC Land	Private	Reservation	Total
75	36	10	814
9.00	5.00	1.00	100.00

7.4.3 Toilet

Table 11: Details of Toilet

Tuble II.	Tuble III Details of Tollet								
Type of to	oilet	Septic	Pit	Other	No Toilet	Total			
No. of hu	ts 🛛	328	11	1	474	814			
Percentag	ge	40.29	135	0.12	58.23	100.00			

Table 11 shows that more than 58% of families, who are living in huts, do not have toilet facility. Around 42% of families have toilet facilities. It indicates that most of the families immediately need toilets facilities.

8. Conclusion

Ten GNDs have been identified among the 48 GNDs as the most deserving poor settlements. Altogether, there are 814 houses in the 10 GNDs with a population of 3,370 people. More than 40% of families are living in temporary huts in the selected 10 GNDs. Around 58% of families are living without toilet facilities in the selected 10 GNDs. Poor drainage and solid waste disposal on road side are the main problems in the selected GNDs. Drinking water problems due to dry season and unsanitary dumping ground where waste collected from the Council area are being dumped at Thiruperunthurai.

Many barriers are identified to the accelerated improvements of these houses. Those are (i) lack of

Source	Pipe Bome	Dug Wells	Common Well	Tube Well	No Well	Total	
No. of families	21	365	32	106	286	814	
Percentage	3.00	45.00	4.00	13.00	35.00	100.00	

local government capacity, (ii) lack of municipal resources for shelter issues, (iii) insufficient involvement of peoples in local political processes, (iv) lack of infrastructure and basic urban services, (v) lack of jobs and savings, (vi) lack of state support for shelter improvement.

The BMC has no authority for the provision of services such as education, public transport services, and public hospitals etc. The operation and maintenance of civic amenities and services such as city roads, drainage, sewerage, water distribution, public parks, public toilets, solid waste management, recreational and community health facilities are some of the key service functionsperformed by themunicipality. The Municipality has no authority over important issues such as land allocation, increase of property tax, recruitment of staff and undertaking major investments projects etc. More than 47% of people (living in huts) have built their huts in their own land while rest of them built their huts in leased, crown, MC, private and reservation lands. The number of huts built in crown and MC land by people in Batticaloa city is 259 and 75 respectively.

9. Recommendations and strategies

Recommendation 1: Formation of Shelter Development Centre (SDC) at the municipality level

This Recommendation is made to help harmonizing of shelter policy at the city level. This consists of the following steps.

- i. Designing the Shelter Development Center: This will be composed of the Local Chief Executive, different department heads to include the Municipal Planning and Development Office, Engineering, Budget, Assessors, Environment, Cooperative Development, Social Services, representatives of the business sector, UDA, representative of the RDS (Rural Development Society) and Ministry etc. will act as ex-officio members.
- ii. Establishment of Shelter Development Centre Office: A Council Resolution will be passed to create a SDC. This office will be in-charge of policy review and development on shelter, program/ projects development, monitoring and evaluation, tracking of informal settlers, migration monitoring to prevent re-occupation of vacated areas, reporting, and linkage with other stakeholders involved in shelter development.

iii. Capacity Building of the staff of SDC: Training will focus on project development, monitoring and evaluation data gathering, consolidation, analysis and use for planning, familiarization/updating on shelter laws, trends, and developments, systems development, and linkage building with the business sector, multi-lateral donors, government line agencies for possible technical assistance, funding and report preparation. Special training programs to be provided on credit facilities/ opportunities, participatory budgeting and microcredit schemes.

Recommendation 2: Empowerment of urban community/RDS

To achieve this, a wide range of capacity building interventions will be organized using a combination of formal training, coaching, systems installation, and project learning visits. Skills areas to be developed will be on organizational management, project management, and financial management - details as follows.

- i. Organizational Management: This will cover review of vision, mission and goals, articles of incorporation and by-laws, leadership development, membership development and strengthening, development of second-line leaders, organizing and handling meetings, negotiations and conflict resolution, team building, values formation/reorientation, secretariat management and office management.
- **ii. Project Management:** This will attempt cover assessment of project viability, business planning, bene ficiary selection, project implementation systems, price negotiations, payroll administration and monitoring.
- iii. Financial Management: This will cover basic recording of financial transactions, dealing/ transacting with the banks, bank reconciliation, auditing/financial monitoring and financial reporting.

Recommendation 3: LandAcquisition

The land acquisition will be done by the BMC through the land acquisition act. Modes of land acquisition will range from land banking and/or direct purchase, land donations, leasing through Council and presidential proclamation of national government idle lands. The BMC will directly purchase available land certified by the assessor office and government departments or obtain on long lease lands suitable for housing based on characteristics of the area and price of the land. The BMC will mobilize resources from external sources to acquire land.

The BMC will work out for land donations with the national government land policy located within the boundaries of the BMC. In consideration of the resource capabilities of local stakeholders, the shelter plan will aim for the construction of 25% of the total housing construction requirement. The breakdown is as follows:

Table 4: Indigenous treatments practiced by the farmers

Providers	Percentage		
Sri Lankan Government	10%		
NGOs	8%		
National Housing Authority	5%		
RDS	2%		
Total	25 %		

The SDC will generate the housing designs in coordination with the relevantagencies such as NHDA, UDA, and Ministry etc. The design will take into consideration of the affordability by the households – the design will dictate the cost of the housing unit. The designs that will be presented to the communities should allow for incremental construction mode by the sector according to their present and future level of affordability.

Recommendation 4: Upgrading of infrastructure and services

BMC will upgrade water supply system, roads and drainage system and power connections. Further, adequate access to basic services can have a considerable impact on the health of the urban poor and thereby on their productivity. Waste collection and treatment is in fact a growing business opportunity, and it is often poor citizens and informal enterprises that work on them. Local governments can build on the interest of the urban poor in waste recovery by integrating informal waste collection into formal systems. This would contribute to both poverty reduction and environmental improvement.

Recommendation 5: Livelihood Support

This part will be implemented through two tracks such as self-employment and skills training for employment. For both tracks, the starting point is a survey to determine the present skills or interests of the people and what kinds of businesses they are engaged in.

The following sub sectors can be considered for selfemployment:

- a. Productivity improvement of fishing activities with the coordination of Fisheries Department for the proper technologies for the area.
- b. Value added improvement in Agriculture products.
- c. Tourism-related goods and services Production of goods like souvenir items for resorts, laundry services, and services such as hairdressing, communication, IT services, photo copying etc.
- d. Construction related services.
- e. Encourage investments in Banking, Insurance and other service sectors.

All these opportunities will need financial and technical support. The BMC will facilitate linkage with resource institutions for fund and technology training.

Skills Training for Employment – Majority of the informal settlers have construction-related skills apart from fishing and farming. This asset can be harnessed by upgrading such skills like carpentry, masonry, electrical works, painting, and plumbing to take on contracts with government projects and even their own community housing-related projects. The objective of this track is to improve the employability of the participants by forming themselves into workers or manpower association that can enter into job contracts with institutions like the BMC, local businesses, resorts, and even individual households.

Recommendation 6: Housing Assistance

The BMC Engineering Department will generate the housing designs in coordination with the Cooperative Department and eventually the Housing Office that will be created based on the consultations done with the communities. The design will take into consideration the following:

(i) Affordability by the households – the design will dictate the cost of the housing unit. The designsthat will be presented to the communities should allow for incremental construction mode by the sector according to their present and future level of affordability. (ii) The housing units will definitely be recovered. Mechanism and policies and systems for recovery/collection will be drawn by the communities with assistance from the BMC. A local NGO or cooperative can be the partner of the BMC in the collection aspect.

10. Future research

The intention of the current research has been to explore the housing related issues in the Batticaloa city and provide strategic approaches to improve the poor housing settlements. A weakness of the study is that it has only focused the 10 GN divisions which consisted of the highest number of huts in the Batticaloa city. However, more research is needed obtain evidence from all GN divisions in the Batticaloa city.

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