

Community Improvement through Participatory Planning Case Study: Purana Paltan Community Organization

Mahfuza Akter

Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka- 1000, Bangladesh, sathy216@yahoo.com

Taslima Akter

Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka- 1000, Bangladesh, taspanlima@yahoo.com

Sharif Mahmud

Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka- 1000, Bangladesh, mobin_89_07@yahoo.com

Mehedi Hasan

Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka- 1000, Bangladesh, mehedi_hasan1000@yahoo.com

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Abstract. Dhaka, the capital as well as administrative and commercial hub of Bangladesh, has seen phenomenal growth in recent decades. The rapid growth of population in the city has been causing a major strain on the existing urban services and infrastructures. In addition to that, demand for the provision of necessary services is climbing at a rate which is becoming very much difficult for the city to keep pace with. The city people are being confronted by numerous problems in their routine life. Traffic jam, scarcity of water, gas and electricity, water logging in the monsoon period, drug addiction etc. have become a common phenomenon to the city dwellers and their community altogether. Many initiatives have already taken by both public and private organizations to solve the community problems. But those seldom came to fruition as most of them failed to address local issues properly. Lack of proper institutional setup, lack of community involvement, disregarding the people's opinion, political instability etc. is hampering the efforts of solving community problems.

When the city authority is being unable to identify the problems of each unit and generate solution, community based organizations are playing a major role for the developing countries over the recent years in this respect. Through solving the problems of each of the community, whole city or in the broader sense, whole country will be problem free. This method of community involvement seeks to ensure transparency, find out the core problems of an area and pay more attention on the problem solving by the community itself. It is focused on involving psychology of the local people in the selection, design, planning and implementation of programmes and projects that will affect them, thus ensuring that local perception, attitudes, values and knowledge are taken into account as fully as possible. So, a study involving the people for the community improvement is imperative to say the

least. The present is centered on this issue.

1. Introduction

Dhaka is the capital and largest city of Bangladesh. It is the hub of the nation's industrial, commercial, cultural, educational and political activities. It is the 9th largest city and one of the most densely populated cities in the world. Population is increasing rapidly day by day. At the same time people are facing different types of problems such as water crisis problem, security problem, load shading problem, traffic jam, environment pollution problem, garbage problem, sanitation problem, transport problem, land pollution problem, roads problem etc. which are the key causes behind to be bad to worse condition of Dhaka City. The people are becoming crazy, and children are not getting a healthy environment in order to grow up properly in the city. In these circumstances, if the condition remain same for a long time, the future condition of Dhaka city shall be dangerous.

Many initiatives have already taken by both public and private organizations to solve the community problems. But those seldom came to fruition as most of them failed to address local issues properly. Lack of proper institutional setup, lack of community involvement, disregarding the people's opinion, political instability etc. is hampering the efforts of solving community problems.

Problem identification and solution generation through community involvement are playing a major role for the developing countries over the recent years. This method of community involvement seeks to ensure transparency, find out the core problems of an area and pay more attention on the problem solving by the community itself. It is focused on involving local people in the selection, design, planning and implementation of programmes and projects that will affect them, thus ensuring that local perception, attitudes, values and knowledge are taken into account as fully as possible. So, a study involving the people for the community improvement is imperative to say the least. The present is centered on this issue.

The objectives of the study are to investigate the existing condition of the community, to identify the major problems of the community and underlying reasons behind them and to propose possible solutions of the problems through community involvement.

The study points out the views of the local people towards finding out the problems they face. It also reveals how the inhabitants tried to cope with these problems and role of different institutions for the improvement of the situation. Though the study has been conducted for academic purpose only but the study can be used as a secondary source for further professional and research work. Development trend of the study area can also be identified with the help of time line.

2. Methodology

At first the study area has been selected for the research which is area served by Purana Paltan Community Organization. The study area is surrounded by Culvert road on the north, S.S. Nazrul Islam Swarani on the west, Topkhana road on the south and DIT Avenue on the east [1].

Data was collected both from primary and secondary sources. Data from primary sources were collected through field visit. Temporal, geographic and spatial data were collected in this step. For spatial and geographical analysis some useful space related PRA tools such as social map, resource map, transect walk etc.

A *transect walk* was done to see the location and distribution of resources, features, landscape, main land uses along a given transect. *Social map* focuses on the representation of habitation patterns and the nature of housing and social infrastructure like roads, drainage system, schools, drinking water facilities etc. On the other hand, *resource map* focuses on the natural resources in the locality and depicts land, hills, rivers, fields, vegetation etc. It reflects how people view their own locality in terms of natural resources [2]. Following steps were followed for in this stage:

- A group of local people having superior knowledge about the area was selected.
- A DAP map of the area was provided to them. On the map they had shown the position of different resources of their area such as school, mosque, shops etc. The buildings occupying higher, middle and lower income groups were also identified by them. Different symbols were determined for the resources for easy identification.
- When the drawings were completed, they were asked by the facilitators why they consider the selected things as resources for the community. The map was cross checked again with the others to correct the wrong information.

To find out people's perception about time and its relation to different aspects of their lives some temporal analysis (Time line, seasonal diagram, weekly diagram and hourly diagram) were done.

Time line is an important PRA method quite commonly used to explore the temporal dimension from a historical perspective [2]. It helps to learn from the community what they consider as important past events and to understand from the community the historical perspective on current issues. Following steps were followed for the preparation of time line:

- Facilitators went to the field and gathered few key informants of the Purana Paltan area inside the house of President of "Purana Palltan Community Organization".
- The purpose of the study was explained to them. Thereafter, they were asked to recall some significant past events such as initiation of major establishment - road, housing, utility facilities, severe hazards etc.
- The main points and reasons behind every phenomenon were written down in the note book. After collecting all the information, the facilitators organized that information in a chronological order and discussed with the participants to cross check.

To identify the major problems of this area, *pair wise ranking method* was used. It is a structured method for ranking a small list of items in priority order. Pair wise ranking tool was used to rank out the problems according to their severity. The process of using this tool is given below:

- A meeting was arranged with the committee member including the local people (around 8-9) to identify and rank the problem faced by them. After selecting the problems the participants were asked to prioritize the problems.
- A matrix table was drawn in a paper. Each box in the matrix represents the intersection (or pairing) of two items. In its column and rows the problems were depicted.
- Each pair was ranked and the frequency of each problem was counted by the number of times they appears in the matrix.

To know about the temporal status of the three major problems (Water logging, Scarcity of water and narrow road) seasonal diagram was drawn. A *seasonal diagram* is a visual method of showing the distribution of seasonally varying aspects (such as problems, illness, diseases, natural events etc) over time. This diagram was drawn as monthly for water logging problem, weekly for narrow road problem and hourly for scarcity of water.

The process of preparing seasonal diagram for water logging problem is described below:

- At first a meeting with five local people of the community has been arranged. A brief description of the activity, its purpose and how it would work has been given to the participants.
- A table has been prepared with twelve column representing twelve months of the year and the paper has been given to the participants
- The group of the participants has discussed among themselves and put legends on months which

correspond to the level of extremity.

Same procedure was followed to prepare the other two diagrams.

At this stage, the causes and effects of the problems were identified through the participation of the local people. The *cause-effect diagram* shows the causes, effects and their inter-linkages. It helps to understand a particular topic and provides scope for analysis and subsequent action by the local people.

Venn diagram was drawn to understand the institutional relationship in a particular area. It is also referred to as Institutional Diagram as it states the relations of stakeholders or institutions with the community. In this method the individuals or institutions are represented as circles of various sizes where the size of the circle illustrates the influence of the institution and the distance between the circles represents contact between the institutions.

It is important to understand the community's internal and external factors that have positive and negative impact on any planning decision of the community. To have a clear idea about these issues *SWOT analysis* was done. Through the analysis, the Purana Paltan community may have a better chance at developing a competitive advantage by identifying a fit between the community's strengths and upcoming opportunities. In some cases, the community can overcome a weakness in order to prepare itself to pursue a compelling opportunity.

Dream map was done to depict the future in line with the aspirations of local people. Analyzing the actual causes and scenario, some recommendations was suggested to reduce the problems.

3. Results and discussion

3.1 Historical Background

Historical background is very much important to get a clear and overall idea about the area. It represents the incidents of the area that had occurred in the past. Time line was used to have an overall picture of the locally significant events as perceived by the local people. The major events are discussed here:

Establishment of Purana Paltan: Until 1925, Purana Paltan was barren woodland with a few houses built of corrugated iron sheets. In a few years after 1925, Purana Paltan became a beautiful residential area for the leaders of the society and high government officials.

Land Use Transformation: In Pakistan period, the area started to lose its beauty being an administrative center and for the construction of business offices. The deterioration of the area would have been delayed for the time being if the Stadium, Mosque (Baitul Mukarram) and Post Master General's Office were not constructed in the heart of the CBD. At present it is a mixed use area where middle class people are prominent inhabitants. Open spaces are decreasing when developers enter into the area in 2008.

Community Organization and Social Context: In 1980 the Police Inspector of that time of Paltan, Monsur Rahman, established a community organization in a need of security. The organization took steps to construct access roads in 1985 considering the public demand. Following the death of Monsur Rahman in 1989, this organization remained inactive for 5 years. In 1994, Major Rahamat Ullah reformed the organization with more participant holdings to recruit night guard for the community. The organization started waste disposal program in 1997 for the community to make clean and beautiful.

Flood and Water Logging: As it is a low-lying area, people of Purana Paltan faced devastating flood in 1988, 1995, 1998 and 2006. In 1988, many people became homeless. In 2006, sudden flood attacked in this area; ground floor of many buildings of the area went under water overnight. Until 2006, the drainage and sewerage system was so poor that even a little rain would cause water logging

in the area. For the resolution of the problem, people connected their drain with the nearest storm sewerage line in 2007.

Incidents Related to Planning: Once there was water crisis in Purana Paltan; but in 2006, the community organization with the help of WASA and local inhabitants who offered land, installed deep tube-well to reduce water crisis. Again in 2007, the organization leveled up the ground floor of the buildings and access roads to prevent water logging. The organization also took an initiative to widen a narrow road.

The gradual diminishing of open space raised the urgency to provide a space for play lot. Eventually in 2007, owners of some high-rise buildings demolished the boundary walls to provide a space for children's play. Again in 2010, the organization made an arrangement of community traffic police to reduce the traffic jam in front of the schools.

3.2 Social condition and resources of the area

The area is dynamic in housing pattern. People from all income groups live here in the community. People living in the Paltan Housing Society and Paltan Enclave are higher income group. Middle and lower income groups are spread out all over the area. Buildings of lower income groups are mostly one storey kutcha or semi-pucca. Rests of the buildings are pucca. All the buildings have electricity and sanitary facilities. But gas facility is not available in the kutcha buildings.

Offices of education ministry, Bangladesh Chhatra Shibir Head office, Bhumi office etc. are situated here. People get help in official help in different aspects near their home. There is only one school (Hydro School) is situated in the area

Some famous commercial organizations such as Mojumdar group, Zenith group etc. are situated there. Paltan area is well known for printing activities. Many famous presses are situated here such as Azad Printing, People's Printing, and Sonar Bangla Printing etc

The study area lacked open space. The space in front of the buildings of Paltan Enclave is used both for parking and recreational purposes. The other open space is used for playground situated in the residential area comprising both middle and lower income group.

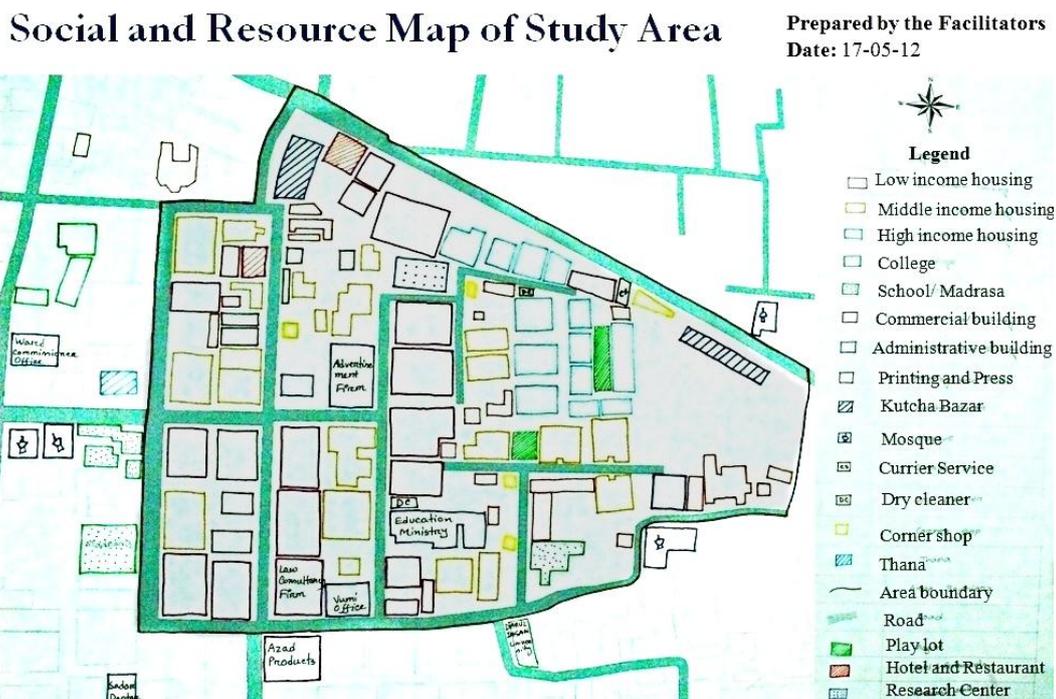


Fig.1. Social and resource map of the study area

(Source: Field survey, 2013)

Two kutchra bazars are found in the locality. One is near the Paltan Enclave and the other in the northern side of the area. Five corner shops are there in the area. Two dry cleaners and one courier service shop is also available here. Hotel and restaurants are also found in the locality.

Narrow road width is common because of not following the set-back rules of RAJUK. The internal road of the site is made of concrete which are nearly about 10-20 feet. Rickshaw is the common mode in the road.

3.3 Institutional Relationship of Paltan Community Society

- Paltan Enclave and Paltan Housing Society have the highest influence on CBO. The people of this society were the initiators to start this community based organization. But the people from this housing society are regarded as well off and pay for both. They also provide financial and managerial help to the CBO in arranging any fair or program.
- The commercial organizations such as provide financial help to the organization when organizing any annual and semiannual festivals. These festivals are held on the ground in front of the women's college.
- Thana provides security and community police to the CBO. The school causes traffic jam during school hour which is one of the major problems of this area. CBO provides community police with the help of Thana to the school to reduce traffic jam.
- The ground in front of the "Hydro School" is used for playground and a place for recreation to the local people. This place is also used for parking space to the CBO when school is closed.
- The kutchra bazars have their separate organization to collect the waste. Sometimes the waste increases in amount which causes odor and ugly. In this scenario, CBO occasionally help them in waste collection
- The mosque situated outside the area has a weak relationship with the CBO. Whenever people arrange any religious activity through the CBO, the mosque helps them by providing space and the arrangements to organize the program.

3.4 Strength and weakness of the area

The community's strengths are its resources and capabilities that can be used as a basis for developing a competitive advantage. The bondage of the community is very strong. People together already have widened the road to prevent traffic jam. The road and plinth of their buildings have also been leveled up to prevent flood. Another strength is the availability of space beside administrative building can be used for parking purpose. In 2006 WASA has installed a water pump in this area. But this pump is not enough to meet the need of the growing population. The space available beside the existing water pump can be used now for installing another one.

Weaknesses are the internal factors of a community which are responsible to create problems in the area. Absences of strengths are considered as weakness in some cases. There are various types of commercial organizations in this area. The bonding among those organizations is not strong. Many welfare activities of the community cannot be successful because of the rival relationship of the organizations. They dump waste on road. Moreover they attract roadside temporary shops and tea stalls which reduce the road width.

Opportunities are positive aspects outside the community that affects that community to some degree. There is a vacant unused space beside the women's college. This space can be put into great use by creating a parking lot there. Developers have been working in the community since 1991. They can play a key role in planned development of the community with the provision of water, gas, electricity etc.

Threats are negative external factors that affect something. Developers activity might induce more and more erection of building structures and thereby, a haphazard development of the area. People may become allured to the lucrative offers of the developers and trade their land to them. Ideal and Azad products two of the biggest commercial establishments of the study area may generate more traffic in the coming years.

3.5 Ranking of the Problems

The major problems of the community were identified with the help of local people. The identified major problems are ranked with the help of local people according to the extremity of problems. Pair wise ranking tool was used in this study to rank these problems. From pair wise ranking water logging problem was ranked as first priority problem, scarcity of water was ranked as second priority problem and narrow roads problem was ranked as third priority problem. These three problems are discussed below in detail:

3.5.1 Water logging problem

In Purana Paltan area water logging is the main problem for the community. From the seasonal diagram it is found that there are many awful consequence of this water logging throughout the year. The water logging is frequently witnessed during rainy season (June-August). Some low-lying roads face water logging for small rainfall in April, May, September and October. The depth, spatial extension and duration of water logging are proportionally changed with its intensity. Odor problem become acute when there is a long term water logging. Sometimes sewerage water overflows during rainy season. This deteriorates quality of water throughout the year. Water logging causes difficulties in movement for both pedestrian and vehicles. Accidents are frequent during rainy season, as the roads go under water. Roads become damaged throughout the year, but the severity is high in rainy season.

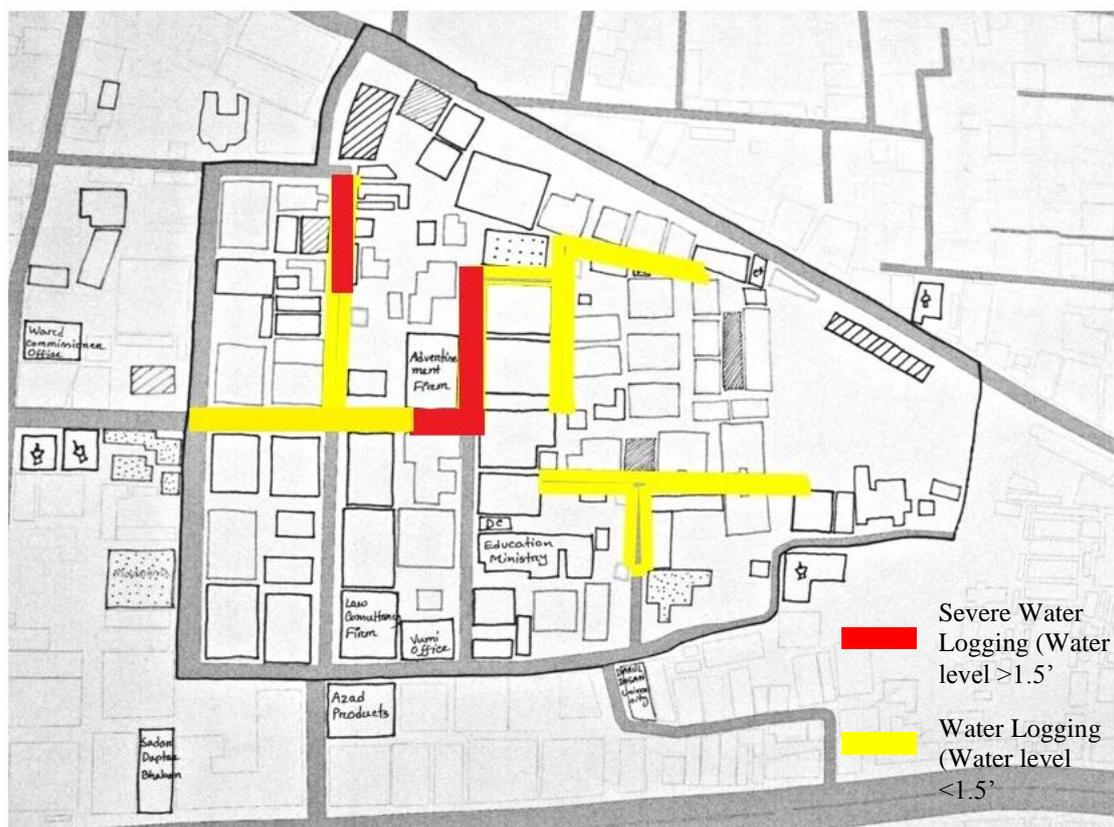


Fig. 2. Spatial Diagram of Water Logging Problem

(Source: Field survey, 2013)

The root causes of water logging are lack of awareness, unplanned development and outdated infrastructure like drains, manholes etc. The low-lying topography of the area makes it susceptible to water logging. Again, being unaware, people throw different types of waste in roadside. These wastes create blockage in manhole and drains. Irregular clean up of drainage creates low capacity which is responsible for overflowing of sewerage water and causes water logging. Unplanned developments also fill the retention ponds of the area and create excess impervious surface. Consequently, the rain water cannot infiltrate naturally. As it is an old developed area, most of the existing drainage pipes turn into outdated. Though a storm sewerage pipe is connected there to reduce water logging, its radius is not adequate to bear pressure of water during rainy season.

The effects of water logging in Purana Paltan area are numerous. The worse effect is the overflow of sewage and sewerage water in roads and waterborne diseases break out in this time. Odor pollution is a common effect of water logging. Movement becomes difficult because of this problem. Accidents may occur due to open manhole during water logging. Frequent water logging damages the roads conditions which also make accidents.

3.5.2 Scarcity of Water Problem

Hourly diagram was prepared for finding out severity of water scarcity over a day. From the diagram, it was found that people face no water supply problem between the time period 6 am- 9 am and 9 pm – 12 pm. In those time periods flow of water is adequate; again water remains free of dirt and odor. So, people do not face any problem in daily activities in those time periods. As there are numerous commercial establishments, there is a sudden change in the intensity of water supply initiating from 9 am but gradually drops till 9 pm. As the water flow decreases problem of cleanliness starts to increase. Water supply problem is most acute during the period of 9 am-12 pm. So, when water supply is increased in the period of 12 pm-3 pm additional water that is supplied carries dirt and odor. But, odor gradually decreases as the day progresses.

Scarcity of water becomes severe during summer. They hardly get water in peak hours. There are several causes behind the problem. Increasing population is one of the prime causes behind scarcity of water in this area. Increased population attracts developers to build high rise buildings and generates high demand for water. Though in 2006 the community organization managed a land for installation of deep tube well, it is not sufficient for the locality at this moment. Local people are unwilling to leave space for installation of deep tube-well. As a result WASA cannot supply adequate water through only one deep tube-well in this community. Thus scarcity of water becomes a common problem there.

Scarcity of water disrupts the daily life of a human being. Both household and routine activities get hampered. A huge loss in time and energy is witnessed due to this problem. There is bad smell in water of WASA. Odor makes the water unable to drink and generates extra expenses to buy drinking water. Due to scarcity of water, low income people collect drinking unhygienic water from nearby water bodies and become victim of waterborne diseases.

3.5.3 Narrow Road Problem

Weekly diagram identifies the intensity of a problem over the week. Weekly diagram was prepared for narrow road problem with the participation of community people of Purana Paltan area. Problem faced by the locality for narrow road is less at Friday and Saturday than other days in the week. The reason behind that Saturday and Friday are the government holiday as well as the holiday of the adjacent roadside school of the locality. The area being adjacent to “Baitul Mokarrum” mosque, traffic congestion is merely faced at off-peak hour as the coming vehicles for “Jumma prayer” on Friday. At afternoon peak hour the service vehicles are rushed and hence create noise problems.

Markets and shopping mall of Purana Paltan area remain closed at Sunday. So, at Sunday problem faced for the narrow road is less. Problems associated with movement of vehicles and pedestrian are

mainly caused by the adjacent school. There is rush of the school student's vehicles in both morning and afternoon which increase noise problems. But it seems that the extremity of problem is less severe in off-peak hour than peak hours as the adjacent market is being closed at this day.

From Monday to Thursday, problem faced to the locality is much acute than any other days in the week. The problems are much intense because both the adjacent market and school is kept open in these days. The narrow road problem hampers the movement of vehicles and pedestrians as well as service vehicles much more in these days. It increases intense traffic congestion in peak hours both morning and afternoon than off-peak hours and hence creates noise problems.

Narrow road problem has turned out to be one of the most significant problems of the study area. Narrow roads are observed in several places of the area. Though there are some roads with 15-20 feet width, most of the roads have width below 10 feet. The problem arose, as indicated by the participants of the area mostly due to unplanned development. Developers design the buildings without following the rules such as set back. They occupy a part of the road width. As a result the roads become narrow.

Road encroachment caused by makeshift shops is another cause behind this problem. These temporary shops block more than one third of the road width. Although there are restrictions, people do not obey them. In our study area, most of the dying industries and presses do not have parking space. As a result they park their vehicles on road. Some buildings provide space for parking but they are extended vertically in an unplanned manner. They exceed the capacity. People use street for parking purpose. There are also illegal automobile and rickshaw parking, which occupy a significant portion of the streets. Location of electric poles in the middle of the road is also responsible for narrowing road width.

This problem of narrow road has led to traffic jam. The speed of the vehicles becomes slower and sometimes fully stopped. As a result, it takes more time to the vehicles to reach the destinations. Narrow road causes trouble in pedestrian and vehicular movement. It causes obstruction for ambulance and other service vehicles to come into the area to provide service facilities in case of emergency. It also causes noise and vibration which is uncomfortable for infant and elderly people.

3.6 Future perception of the people

Dream map was drawn to describe the future hope and aspiration of local people i.e. how they want to see their locality in the future. As the study concerned with previously identified three major problems of the study area, these issues was considered for the preparation of Dream Map which is as follows:

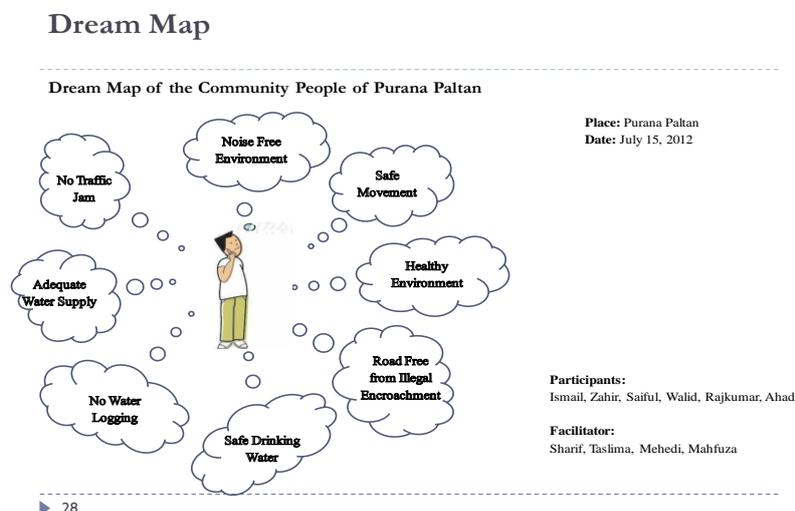


Fig. 3. Dream Map

(Source: Field survey, 2013)

4. Recommendations and Conclusion

4.1 Recommendations

Some recommendations are suggested following the solutions generated through the involvement of the people as specified in the last chapter. They are as following-

- *Proper positioning of manholes:* Existing manholes are not in proper position on the road in this area. So, the rain water does not pass in a proper direction and intense the water logging problem. Proper positioning of manholes should be constructed in such a way that fit with slope of the road.
- *Maintenance of drains and manholes before Rainy Season:* During monsoon a huge amount of water passes through drains and manholes. So they should be cleaned up properly during rainy season. Again during flooding the roads are flooded with water. If there is any manholes or drains without cover, accidents take place. So they should also be covered.
- *Separation of commercial and residential water supply line:* There are a huge number of commercial buildings around the locality. A major portion of water of the water supply line is used for commercial purpose. So, it hampers the residential household to conduct their daily activities with adequate water supply. It may be effective to reduce the water scarcity problem by separation of commercial and residential water supply line.
- *Relocation of makeshift shops:* A huge number of makeshift shops are situated throughout the road side and reduces the effective width of the road. These makeshift shops are one of the most important causes of narrow road problem. Relocation of makeshift shops beside Kutcha Bazar and permanent ban on any further encroachment may solve the problem of narrow road.

4.2 Conclusion

Participatory Rural Appraisal is successful in figuring out the people's hope and aspiration regarding community improvement in most cases. As people are actively involved in this process the issues of the community are better reflected through this. In this study, major problems of the Purana Paltan Community Organization were found out and recommendations were given by giving proper attention to the solutions suggested by the local people. Community involvement on a greater scale may play a big role in solving the community problems and hence, ensuring the improvement of it.

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