# An Assessment on the Implementation of the Physical Development Plans of Rajshahi during 1984 to 2014

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#### **Abstract**

The physical development plans make a city functionally efficient and enhance cities sustainability. The successful implementation of these plans ensures planned development of a city that is utmost necessary to accommodate and meet the demand for the ever increasing population. Despite the importance of physical plans most of the cities in Bangladesh ignore the planning guidelines that in turn adversely affect the physical, social, environmental and economical condition of the city. To ensure planned development of Rajshahi city a number of planning proposals were formulated but the city seems to be facing a lot of problems despite such efforts. In response to these circumstances, the study has been conducted to identify the success or failures of the Rajshahi city development authority in the implementation of the physical plans. Research was conducted based on a documentary analysis, official opinion survey and physical feature survey.

Keywords: Physical Plan, Master Plan; Development, Implementation, Rajshahi City

#### 1 Introduction

The master plans are basically physical development plan that are applied to ensure planned development of the cities. An efficient and workable master plan is required to be successful in the development of cities. Adoption of physical planning accelerates the planned development of a city and is prerequisite for a sustainable better living environment. In Bangladesh introduction to planned development is guided through a master plan prepared by the City Development Authority within a regulatory framework (Ahmed, 2011). The preparation of the master plan with all of its process and procedures and legal framework was started in the year of 1959 when master plan for the Dhaka City was completed by a British firm. The same process and procedures were followed in the preparation of first Master plan for Rajshahi in 1984 (RDA, 2003). Rajshahi is the 4<sup>th</sup> largest metropolitan city of Bangladesh next to Dhaka, Chittagong, and Khulna (RDA, 2004). Being a divisional headquarter and one of the prominent cities in the northern region of Bangladesh a number of local level institutions are working for the development of the city among all these Rajshahi Development Authority (RDA) is primarily concerned with physical development of the city. To ensure planned physical growth of the city two master plans were prepared by RDA. Just after the establishment of RDA in 1978 the first Master plan was prepared in 1984. After expire the first Master Plan, Rajshahi Metropolitan Development Plan (RMDP) was prepared in 2004. The second development plan is currently being implemented by RDA and going to expire in 2024 (Mazumder, 2006). In addition to these master plans a drainage master plan was prepared by Rajshahi City Corporation in 1994 (RDA, 2003) and a water supply master plan by Rajshahi Water Supply and Sewerage Authority in 2012 (RWASA, 2012). Despite these efforts the city seems to be facing a lot of problems. Thus the research has been conducted to explore the achievement of the city development authority in the implementation of the physical development plans.

A few of the studies assessed the implementation status of the Master Plans of Rajshahi. The study tried to assess the role of the city development authority in the planned development of Rajshahi. Existing development scenario is often considered as an important tool to assess the implementation status of the planning proposals therefore, to know the existing scenario of development a physical feature survey was conducted along with official opinion survey. It is expected that the research will help to identify the success/failures in the implementation of the planning proposals.

#### 2 Materials and Methods

The research is related to the assessment of the implementation status of the Master Plans of Rajshahi City. The paper focuses on the planning proposals and the actual scenario of development of the city. To attain the objectives a documentary analysis was performed in addition to this a physical feature survey was conducted and official opinion was taken to investigate the implementation status of the proposed facilities. The physical feature survey was conducted to know the factual scenario of development of the proposed facilities indicated in the Detail Area Plans. Due to the limitation of time and money one sample Spatial Planning Zone (SPZ No.18) was selected and the survey was conducted. SPZ 18 was selected as study zone because it covers the core of the RCC area and was the target to develop this zone within 1st phase of the plan period (2004-2009). A base map indicating the location of the proposed facilities was prepared and the survey was conducted to investigate whether the proposed facilities are being implemented in a planned way. The officials (Town Planners, Executive Engineer and Chairman of RDA) who are involved in the implementation and monitoring of the planning proposals in particular the view of them was taken. A check list of the proposed facilities was prepared to mark the implementation status of the proposed facilities. The officials view was taken to find out the problems that they face in executing the plans and also to specify the reasons of deviation from the planning guidelines.

#### 3 Results and Discussion

With the aim to ensure planned growth and development of the city, Rajshahi Town Development Authority was established in 1978. The Authority is in charge of preparing and executing the plans and schemes for the development of Rajshahi City. It is also responsible for preparing Master Plans in line with the general development plan indicating land use zoning, water supply, roads, housing, sewerage and drainage etc. In response to this the authority prepared a Physical Development Plan (Master Plan) for Rajshahi in 1984. The plan was prepared for a population of 100000 during the third five year plan and the additional population 300000 in habitants for the period 1985-2000. The 1984 Master Plan recommended a number of proposals for the further development of the city. All of the proposals were indicative rather than detailed. The overall planning proposals and the implementation status of 1984 Master Plan is presented in the table 1.

Table 1: Implementation Status of the Planning Proposals of 1984 Master Plan

Development Proposals	Action	Status
Preparation of Drainage Master Plan	√	Ongoing
Improvement of Town Protection Embankment	$\sqrt{}$	$\sqrt{}$
Selection of new site for waste disposal	$\sqrt{}$	$\sqrt{}$
Sewerage system development	X	X
Expansion of water supply network	$\sqrt{}$	$\sqrt{}$
Establish a light industrial zone at the east of city	X	X
Agro-based industry development	X	X
Development of low income housing at the north of the city	X	X
Housing project at the north of the proposed new Town Center	$\sqrt{}$	$\sqrt{}$
Up-gradation scheme for the Seroil Colony	X	X
Development of 7500 serviced plots for the middle income group of people	$\sqrt{}$	Ongoing
Development of New Town Centre at the north of the city	X	X
Beautification of local roads	$\sqrt{}$	Ongoing
Development of parks and playgrounds	X	X
Improvement of the area along the Padma River bank	X	X
Construction of Commercial areas at Bus terminal	$\checkmark$	$\sqrt{}$
Construction of Commercial areas at Talaimari and Binodpur	X	X

Development Proposals	Action	Status
Development of Road Networks		
- City Bypass	$\sqrt{}$	$\sqrt{}$
- Bypass connector road	$\sqrt{}$	$\sqrt{}$
- Talaimari to Rail station	$\sqrt{}$	$\sqrt{}$
- Laxmipur to Kashiadanga	$\sqrt{}$	$\sqrt{}$
- Kalpona Cinema hall to Sericulture	$\sqrt{}$	$\sqrt{}$
- Airport road to Bypass	$\sqrt{}$	On going
- Shaheb bazaar to Gourhanga Moar	$\sqrt{}$	On going
- Greater road to Women complex	$\checkmark$	On going
- Court Darusa road	$\checkmark$	On going
- BIT to Bypass	$\sqrt{}$	On going

It is apparent from the table 1 that many of the projects are yet to be implemented. Among all the planning proposals a few of them were fully implemented. Though the target plan period of the 1984 Master Plan has expired in 2000, a number of proposed roads are still being implemented. The lack of basic economic activities hampered the physical development of the city that in turns delayed the necessity of quick implementation of the planning proposals. Above all it depicts that the city development authority (RDA) failed to execute the first physical development plan. To overcome the difficulties of 1984 Master Plan the authority prepared Rajshahi Metropolitan Development Plan (2004-2024) in four tiers. Among all the four tiers the Functional Master Plan was most prominent and prepared to guide and control the physical development of Rajshahi during the next 10 years (2004-2014). The objectives were formulated with the aim to attain: orderly location of services and facilities, orderly location of various urban land uses and locating appropriate communication network (RDA, 2004b). To ensure planned development of the city the following proposals (Table 2) were formulated for the development of the infrastructures and community facilities. The documentary analysis and official opinion survey shows that among all the proposed facilities a majority (62%) of the facilities are not executed yet, only 38% of the facilities are being partially implemented and none of the facilities is fully implemented. The overall implementation status of the proposed facilities is shown in tabular format (Table 2).

Table 2. Development Proposals and the Implementation Status of the Master Plan (2004-2014)

Proposed Facilities	Implementation Status		
	F*	P*	X*
Drainage development		$\sqrt{}$	
Sewerage system development			
Water supply system development			
Increase waste disposal site		$\checkmark$	
Development of town centre			
Development of housing areas		$\checkmark$	
Construction of new roads		$\checkmark$	
Widening of roads		$\checkmark$	
Improvements of pedestrian facilities		$\sqrt{}$	
Improvements of major Intersections		$\checkmark$	
Creation of parallel roads along Major Thoroughfare			
Build Truck Terminal alongside Bypass road		$\checkmark$	
Relocate wholesale rice market from Kadirganj			
Development of ICT village at Budhpara, Meherchandi			$\sqrt{}$
Establishment of EPZ at Mallikpur-Ranhat			$\sqrt{}$
Development of industrial area with necessary infrastructure and services			$\sqrt{}$
Development of Education Facilities			$\sqrt{}$
Development of a specialized hospital at Katakhali			$\sqrt{}$
Development of two community park at Budhpara and Bariapara			V
Development of 5 play field within the urban area			
Development of a Botanical garden at Uzirpukur			
Development of Padma River bank as a recreation area		$\checkmark$	
Development of Social Services			
• Katcha Bazar-20			
• Post office-6			
• Graveyard-9			

\*\*\*F=fully implemented; \*\*\*P=partially/ongoing; \*\*\*X=not implemented

• Community centre cum ward commissioner's office-30

A priority project list was also prepared and recommended for the implementation in the first phase of development. The Table 3 shows that among all the proposed projects the roads are being implemented; the Padma river bank is partly developed as recreational zone and some housing projects are being implemented by RDA. It was the target to accomplish the projects by 2009 but all the proposed facilities are not executed in the prescribed time frame and still some of the projects are ongoing.

Table 3. List of Priority Projects for the first phase of Development

Type of Projects	<b>Implementation Status</b>	
Road Project	-	
1. Gourhanga Maor to Zero Point (Length-1.20km, Width-80')	$\sqrt{}$	
2. Sericulture to Bypass Link Road (Length-3.25km, Width-80')	$\sqrt{}$	
Fire Brigade to Greater Road to Bypass Link Road (Length-4.41km,	$\sqrt{}$	
Width-80')		
3. Postal Academy to Budhpara (Length-7.80km, Width-80')	On going	
Town Centre		
Town Centre-1 at Baze Silinder Mouza 119.28 acre	X	
Recreational Project		
Padma River Bank Recreational Project, Area: 30 acres	Partial	
Industrial Area Development Project		
ICT Village at Budhpara-Meherchandi Mouza, Area: 30 acres	X	
Health Project		
Specialized Hospital at Katakhali, Area: 55.90 acres	X	
Housing Area Development Project		
Development of all AIPs under SPZ 4	Partial	

## 3.1 Implementation Status of the Detail Area Plan (SPZ-18)

This section shows the existing scenario of development of the DAP based on primary data. To know the details of the development a sample SPZ 18 was selected for the study (Figure 1). The zone accommodates the main commercial area of the city together with a few educational establishments. The plan proposed to develop the road networks and to enhance the availability of the community facilities for the entire zone.

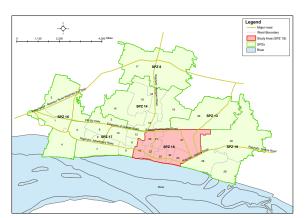


Figure 1. Study Zone within Rajshahi City Corporation Area



Figure 2. Proposal for the Development of SPZ-18

The plan emphasized the widening of the narrow and congested roads and few new roads for construction (Table 4 & Figure 2). Estimating future demand and to meet the present requirements a number of community facilities were proposed as follows (Table 5 & Figure 2).

The physical feature survey result shows that among all the proposed facilities only the roads are being implemented partially. The plan proposed to construct 9.7 km new roads and 22.55 km roads for widening but in reality it is found that only 2.67 km new roads are constructed and 5.5 km roads are widened. Among all the proposed community facilities only one katcha bazaar is developed and no initiatives are taken for the execution of other facilities. The overall implementation status is presented in the table 6 and figure 4.

Table 4. Proposed Roads for the SPZ-18

Table 5: Recommended Community Facilities for the SPZ-18

Type	Width	Length	Total
	(Meter)	(Meter)	
	6.09	8380.84	
New	9.15	282.83	9.7
Road	12.20	770.64	km
	24.39	328.99	
	6.09	7240.90	
Road	9.15	1515.82	22.55
Widening	12.20	9978.56	km
	24.39	3816.17	

Туре	Unit/Number	
	Previous (in 2003)	Proposed
Primary school	15	1
High school	10	0
College	4	0
Madrasa	12	0
Post office	4	0
Katcha Bazar	5	3
Graveyard	3	0
Playfield	2	4
Community centre	0	8

Table 6. Implementation Status of the Proposed Facilities

Type	Unit/Number	
7.2	Proposed	Implementation Status
Primary school	1 nos	X
Katcha Bazar	3 nos	1
Playfield	4 nos	X
Community centre	8 nos	X
New Roads	9.7 km	2.67 km (P*)
Road Widening	22.55 km	5.5 km (P*)

\*\*\* √=implemented; \*\*\* X= not-implemented; \*\*\*P= Partial Implementation



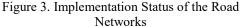




Figure 4. Implementation Status of the Proposed Facilities

#### 3.2 Progress of Achievement

The study shows that the city development authority has failed to achieve most of the targets of development and failed to implement the DAPs according to the planning guidelines. It was a plan to review the DAPs at the end of every 4<sup>th</sup> year and the first review should be conducted in 2009 (RDA, 2004b) but the authority has failed to do it. Along with the survey result, Town Planners also reveals that the progress of implementation of the planning proposals is very slow. Among all the planning proposals maximum achievement is occurred in the development of the road networks. The achievement in the development of the transport infrastructures specially the roads is approximate 30-40% and the overall achievement of implementation is almost 20-25%.

## 3.3 Problems in the Execution of the Plans

A number of factors acted as a barrier in the implementation of the DAPs. The main reasons are identified as lack of capacity in terms of financial, technical and skilled manpower. The officials' view reveals that it is not viable to complete the functional Master Plan in the prescribed time frame. The authority had a planning cell including 3 Assistant Town Planners, 2 Town Planners and one Chief Town Planner during the preparation of the plan. It was suggested to absorb the planning cell to be successful in the implementation of the plan but the authority did not absorp the planning team (Town Planner, RDA). The following problems were also identified as the impediments to the implementation of the plans.

- **Institutional:** RDA and RCC are mainly responsible for the physical development of the city. But the coordination between these two institutions is very limited. In fact coordination is absent among all other local level institutions and each of the organizations work independently without considering the guidelines of the development plan.
- **Technical:** Lack of training, modern office and equipment are also the impediments in the execution of the plans. In addition to these the appointment procedure is not technical and does not have the qualifications according to the desired post.
- **Financial:** Dependency on the central government for fund and long procedure of project approval is also an obstacle. A very limited fund is available for the execution of the roads but in most of the cases no fund is provided for the provision of the community facilities.

## 4 Conclusion and Recommendations

The findings of the study shows that the physical development of Rajshahi is very slow compared to other cities of Bangladesh. The review of the Functional Master Plan and Detail Area Plan shows that a number of planning proposals were formulated for the development of the city. Among all these only the roads are being partially implemented and some of the housing projects are being developed, thus the following recommendations may be taken into account to be successful in the implementation of the planning proposals:

- Strengthen Institutional Capacity
- Ensure Coordination among the Local Level Institutions
- Ensure Public Participation
- Formation of Monitoring Cell
- Reduce Dependency on the Central Government

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