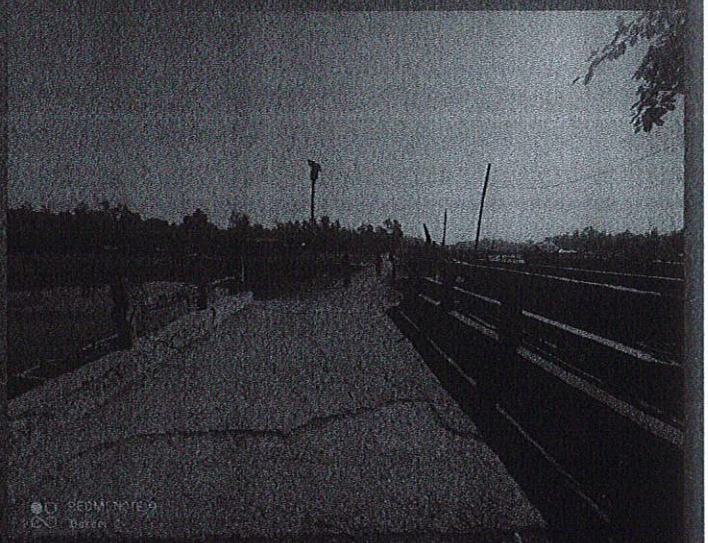
Government of the People's Republic of Bangladesh
Ministry of Local Government, Rural Development & Cooperatives
Local Government Division
Local Government Engineering Department
Agargaon, Dhaka-1207

Feasibility Study Report of Cox's Bazar District Rural Infrastructure Development Project



December 2021

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Executive Summary

Bangladesh, with a population of about 164.6 million in 2019 and a land area of 147,570 square kilometers, is among the most densely populated countries in the world, and one of the country's most vulnerable to the impacts of climate change. Two-thirds of the country is less than 5 meters above mean sea level and located in the Ganges–Brahmaputra–Meghna Delta. As Bangladesh is celebrating its 50th anniversary of independence, it is also remains on the pathway to development as its looks forward to transitioning into a developed country by 2041. To transition into a developed country, rural connectivity plays a vital role.

Rural connectivity underpins rural development in Bangladesh. Roads are the dominant mode of transportation, utilized by over 70% of passengers and 60% of freight traffic. Rural roads contribute significantly to generating increased agricultural incomes and employment opportunities while providing access to economic and social services to the entire rural population. About 80% of the country's population lives in rural areas and depends on agriculture for their livelihood. The rural economy, through the farm and nonfarm sectors, substantially contributes to the national economy.

Bangladesh Government's Perspective Plan, Five Year Plan, Delta Plan as well as United Nation's Sustainable Development Goal (SDG) are the main strategies paper which provides a definite guideline for improvement of rural connectivity. All these policies will help to the government to formulate a project that will provide an effective and efficient way to support economic development of the country and ultimately realize greater development results.

The 8th Five-Year Plan recognizes that developing rural infrastructure is the key to social and economic development and poverty reduction among the rural population. The 8th Five Year Plan states 'An improved road communication system reduces road user costs and costs of production and thus facilitates socio-economic development of the country. Also the Sustainable Development Goal - 9 aims to build resilient infrastructure, promote sustainable industrialization and foster innovation. In order to achieve this goal some targets has also fixed among which notable are: Develop sustainable, resilient and inclusive infrastructures; promote inclusive and sustainable industrialization; increase access to financial services and markets; upgrade all industries and infrastructures for sustainability; enhance research and upgrade industrial technologies.

The 8th Five Year Plan has entrusted responsibility to LGED to implement activities like construction, rehabilitation and maintenance of rural roads, culverts, bridges, boat landing, construction of wholesale and retail markets in rural areas etc. So, the proposed project "Cox's Bazar District Rural Infrastructure Development Project" is taken to fulfill the goal and to achieve the strategic objectives of the 8th Five Year Plan as well as SDG.

The objectives of the feasibility study are:

- To collect detailed data/information on Cox's Bazar District;
- To assess the requirement of physical infrastructure development in the Cox's Bazar District;
- To assess the cost estimate and financial requirement for implementing the proposed development intervention;
- To assess the capability of LGED's to implement the proposed project
- To prepare draft design of Rural Roads, Drains, Culverts, Bridges, Boat Landing and other infrastructures;
- To recommend a time frame for implementing the project;
- Finally to prepare project document based on the collected data/information

The Ideal Design & Consultancy conduct this feasibility study. A team comprises of 03 (three) member has formed to conduct this study. Md. Manzur Rahman worked as Team Leader/Rural Infrastructure Specialist for this feasibility study. Md. Zakariya Habib worked as a Junior Infrastructure Specialist and Sumon Kumar Ghosh worked as an Assistant Engineer

for this feasibility study. Consultant team prepared this feasibility study report with the help of Project Director of Greater Chittagong Rural Infrastructure Development Project-3, Executive Engineer and Senior Assistant of LGED, Cox's Bazar district with the help of Upazila Engineer of Nine (09) upazila of Cox's Bazar district. The study team collected data and information from all over the district. Discussed with the stakeholders and beneficiaries in the project area to identify and prioritize schemes to be developed under this project.

Findings

Cox's Bazar district is a district under Chattogram division. It is extended between 20°43' and 21°56' north latitudes and in between 91°50' and 92°23' east longitudes. Its area is about 2,491.86 square kilometers. It is bounded by Chattogram district on the north, Bandarban district, and Myanmar on the east, Bay of Bengal on the west and South. The longest sea beach of the world belongs to Cox's Bazar.

Main rivers of the district are Matamuhuri, Bakkhali, Rezu, Kohelia and Naf. Compared to other regions of Bangladesh, the southeast coast, especially Cox's Bazar district, requires development due to its importance in the economy. The population density of this district is increasing like other districts of the country. Moreover, the district simultaneously produces fishing and collecting seafood and sea products, agricultural and various non-agricultural products. Seafood is collected in large quantities in this district. The people of this district are involved in various activities related to the service sector.

There is a huge demand for development of roads, bridges / culverts, hat-bazaars in cox's bazar districts. Mostly these roads are not all weathered roads and not have the designed capacity to bear the last of heavy truck loads which are common during transport of the farm products as these rural roads connect millions of farms. Considering all aspects financial, technical, organizational and discussions with all stakeholders these following interventions is needed in this district: Improvements/Up-gradation/Maintenance of Road Network, Footpath Construction, Construction of Culverts and Bridges.

Recommendation

In order to ensure quality service to the rural area, development of physical infrastructures of Cox's Bazar district is a crying need. The study team has identified actual need at the ground level. The project's investment will give advantage to the decrease income groups, women, girls and children. The neighborhoods/areas of upazilas selected for inclusion within the assignment are generally low, lower-middle and middle earnings in nature. Likewise, improvement of rural infrastructure upgrades the rural services can even directly influence the poor people. The result of EIRR is more than 12% which indicates that the project is viable means that the project is acceptable. Considering long term benefit it would be better to consider the project for approval.

Project Feasibility Study Report

Section 1: Basic Information

1.	Name of the Project	:	Cox's Bazar District Rural Infrastructure Development Project
2.	(a) Sponsoring Ministry	:	LGRD&C, LGD
	(b) Implementing Agency	:	LGED
3.	Project Objectives	:	• Construction of rural road infrastructure to accelerate the growing development and economic growth of the country's rural economy • Establishment of climate tolerant and sustainable rural transport system through improving of selected rural roads • Expansion of marketing facilities of agricultural / non-agricultural products by increasing the capacity of rural roads and road safety in the project area • Creation of developed and strong rural road network to expand modern urban facilities to rural highways • Creation of direct / indirect employment through investment in road infrastructure sector
4.	Estimated Project Cost (Taka in crore)	:	720.00
5.	Sector and Sub-Sector	:	Agriculture, Water Resource and Rural Institutions, RD&I
6.	Project Category (Based on Environment Conservation Rules 1997)	:	Orange -B
7.	Project Geographic Location		
	(a) Country wide	:	-
	(b) Division	:	Chattogram
	(c) District	:	Cox's Bazar
	(d) Upazila	:	Cox's Bazar Sadar Upazila, Chakaria Upazila, Pekua Upazila, Kutubdia Upazila, Moheshkhali Upazila, Ramu Upazila, Ukhiya Upazila, Teknaf Upazila, Eidgah Upazila
	(e) Others (City Corporation/Pouroshava)	:	–
8.	Project Duration	:	February 2022 to June 2025

Section 2: Introduction

2.1 Project Background: Rationale and Genesis

Bangladesh is overwhelmingly rural based very densely populated country with a major population is poor. Around 70 per cent of the people live in rural areas and approximately 25% of them fall below poverty line. About one third of the total labor force is either unemployed or underemployed especially during slack seasons. Low production and productivity, highly dependence on agriculture, low purchasing power, higher rate of population growth and low literacy rate are the major problems of the economy as a whole. Amenities of life in the rural areas are grossly inadequate.

The economy of Bangladesh is predominantly based on rural agriculture contributing about 19 % to the Gross Domestic product (GDP) and employing about 45 % of the labor force. Thus agriculture plays the pivotal role in the county's growth and employment. The above scenario makes rural infrastructure in general and rural transport infrastructure in particular an important element in supporting continuing growth of the economy and poverty alleviation providing better access of agricultural input and other relevant services and trading facilities of goods.

With this backdrop, in 1984, the Planning Commission of Bangladesh published first sectoral policy paper as "Strategy for Rural Development Projects", with objective to improve quality of life of the rural people, through improved physical infrastructure, agriculture and employment opportunities. This strategy paper deals with physical infrastructure as a major element of rural development and provided an implicit strategy for rural infrastructure development accordingly.

In January 1984, the Government of Bangladesh adopted a "Strategy for Rural Development Projects", with the objective to improve quality of life of the rural people through improvement of infrastructure development. It emphasizes critical aspects of the rural development process - agricultural development, improved physical infrastructure, and income generation for the poor. The Strategy required the execution of a series of Rural Development Projects each of which should include one or more of the following elements:

- Development of physical infrastructure - roads, storage, markets.
- Irrigated agriculture, minor drainage and flood control works.
- Production and employment programs for the rural poor.

The Strategy recognized the importance of providing an improved rural transport and trading infrastructure, and emphasized the following infrastructure priorities:

- Development of an all-weathered Upazila road network to provide access to and from Growth Center Markets.
- Improvement of Union and Village roads and the spanning of gaps in roads, to provide rural people better access to markets and administrative facilities.
- Improvement of physical facilities at Growth Center Markets to make trading more efficient.

Bangladesh has a well-defined categorization of a hierarchy of rural roads and markets, and the road and market classifications are integrated (e.g., Upazila Roads are defined as connecting Growth Centers to higher levels of the road network). This together with the clearly defined priorities set out in the Strategy, provides an effective framework for the rational, and integrated planning of infrastructure investments to develop the rural transport and trading system.

The Strategy has been implemented through a series of projects that focused on development of road and market infrastructure implemented by LGED, which are financed

by multilateral and bilateral agencies in collaboration with GOB resources. This includes Asian Development Bank (ADB) financed Rural Infrastructure Development Projects, World Bank (IDA) financed Rural Roads and Markets Improvement and Maintenance Project-I (RRMIMP-I), RRMIMP-II, and RTIP (on-going). Also other development partners like JICA, Islamic Development Bank (IDB), German Bank (KfW), SDC, SIDA, DANIDA, SFD, and NORAD assisted in implementing rural infrastructure development projects. These projects have contributed successfully to the Strategy including employment for the poor through labor-intensive construction methods.

The necessity of formulating a "National Rural Development Policy 2012" has long been felt in order to implement in an orchestrated manner and on the basis of clear directions. The overall progress of Bangladesh is subject to development of rural areas. Both government and non-government organizations are implementing multifarious programmes for rural uplift. Among these programmes, the significant ones cover micro-credit for poverty alleviation, social security, development of physical infrastructure of rural areas, women's empowerment, education, health, family welfare, nutrition, promotion of environment etc.

People's Participation:

- All plans will be formulated, projects selected, implemented and monitored with active participation of the local people.
- Resources and needs of every household in the village will be identified through survey based on active participation of local people.
- Resources, problems and needs of the village will be regularly identified on the basis of comprehensive data generated on a continuous basis through survey of all households in each ward or each village.
- With a view to formulating local level plans, initiatives will be taken to collect all relevant village data.
- In case of local level planning, the Union Parishad will be considered an administrative unit. Union Plans have to be formulated by integrating the village plans. In the same manner, Upazila plan will be formulated integrating the union plans while the Upazila plans will be integrated into the District plan that will be reflected in the national plan.
- The people's representatives and officials of local government institutions including Union Parishads will be imparted motivational training to become self-reliant by self-help. Rural people will be organized and encouraged to solve their problems with their won initiatives so that they are no longer dependent on govt. and external supports.

Poverty Alleviation

- Measures to remove economic and social barriers including discriminations in rural areas will be taken in a planned and concerted manner.
- Systematic and regular monitoring of positive changes in the socio-economic conditions of the rural poor will be carried out on the basis of definite criteria.
- Ample opportunities of diverse employment will be created in the villages. A favorable environment will be created so that village people can attain economic self-reliance.
- Government, in order to address the primary objective of poverty alleviation, will continue target group and area focused programmes (such as food for works, housing, credit, support, skills development and training, creation of non-agricultural periodical employment opportunities in the non-agricultural sector etc.) in certain areas of the country on the basis of their geographical specialties and actual needs.

- More effective measures will be taken to help rural people gain self-reliance through formation of formal (e.g. co-operatives) and non-formal groups.
- Villagers will be motivated to create their own organizations and develop their own capital through accumulating savings.
- An enabling environment will be created so that rural people can utilize their own potentials and creative capacity.
- Different measures will be taken to increase capacity of the organization.
- Economic, technical and other supports will be provided for implementing projects planned by rural people.
- In order to create rural entrepreneurs, necessary training and assistance will be offered.
- Necessary directions and continuous supports will be offered in order to create an overall congenial and enabling environment.

Rural Infrastructure Development

- By prior selection of the infrastructure development needs and outline for every area of the country, the village plan book, the union plan book and the Upazila plan book will be prepared and kept updated.
- In the case of undertaking and implementing infrastructure development project in every development area, priorities indicated in the periodical rolling plan will be followed.
- Use of agricultural land, especially land having irrigation facilities will be discouraged for non-agricultural purposes.
- In case of new establishment and development of road communication, priority will be given to link roads with growth centers, Union Parishads, Upazila Parishad and also link roads connecting the nearest districts and highways.
- The implementation and financing of flood control and all other natural calamities control projects and agricultural infrastructure development projects will get priority over the projects.
- Scheduled periodic maintenance of roads and other physical infrastructure will be emphasized.

Agro-based Rural Economy

- Necessary measures will be taken for boosting integrated on-farm and non-farm production through application of modern and improved technologies.
- Agricultural extension services will be expanded to promote crop diversification, increase land fertility and ensure optimum utilization of land.
- The system of land registration and land reforms will be further improved in harmony with the agricultural and other relevant policies.
- Sustainable and environment friendly use of land will be encouraged to augment agricultural production.
- Marketing network of rural agricultural products will be developed and linked with the national and international markets.
- With a view to creating an effective crops marketing system, measures will be taken to ensure development of rural hats and bazaars and preservation of crops endorsing profitable prices of crops in the market.

- Market information services for small and poor growers and producers will be expanded.
- To ensure proper prices and facilitate marketing of the products of farmers, appropriate measures will be taken to link producers, processors, traders and exporters.
- Govt. assistance and support to cooperatives will be enhanced to increase their contributions to national development.
- In order to help those farmers/ share croppers who are really affected by sudden natural calamities like drought, flood, river erosion, etc, crop insurance programmes will be expanded by government's initiative of offer them capital security and enable them for probable loan repayment. Gradually all producer communities will be brought under its purview.
- Insurance will be introduced for the benefit of fish, livestock, duck and poultry farmers.
- Insurance with an easy process of premium payment will be introduced for all loans for agriculture, crop, livestock, fishery, etc.
- Individual producers of fish, livestock, agricultural product, etc. will be encouraged to secure personal insurance.
- Well-established industrial groups of the country will be motivated to open agricultural insurance company to help rural poor farmers in their crisis period. Such insurance company will enjoy tax holiday on paid insurance demand of the clients.
- Effective measures will be taken to ensure reasonable prices of perishable agricultural goods during the period of harvesting. For this, establishment of export-oriented fruit and vegetable processing factories will be encouraged.
- Safe preservation of rapidly perishable agricultural goods will be ensured through creating physical facilities in rural areas.

Education for Rural Areas

- Universal primary education programme will be expanded in all rural areas. Expansion of formal and non-formal education will be given priority.
- To achieve the objective of developing skilled human resources, formal and informal facilities for imparting technical knowledge and skills having high demand in the national and international labour market will be expanded.
- Topics related to rural development will be included in the curriculum at different levels of education, if necessary. In order to develop capable leadership for rural development, new courses may be introduced.
- In all projects undertaken for poverty alleviation education and training on social awareness, the importance of self-reliance, environment awareness and promotion of self-strength and self-confidence will be incorporated.

Rural Health Services and Nutrition Development

- Both men and women, in all stages of the life-cycle will be ensured access to physical and mental health services, and their health and nutrition awareness will be raised through training to be imparted by relevant institutions and organizations.
- To control diseases in the rural areas, special emphasis will be given to the extension of supply of safe water and modern sanitation.
- Homeopathic and herbal treatment like Unani and Ayurbedic being less expensive

will be encouraged for expansion.

- Community Clinics are making substantial contributions to health and family welfare in rural areas. Rural doctors will also be employed in strengthening rural health services.

Development of Rural Housing

- Construction of building, new settlement etc. on cultivable agricultural land will be discouraged, and measures for planned construction of houses will be taken.
- Research for innovation and development of technologies of low cost housing for rural areas will be undertaken.
- In the villages, residential area and cultivable area will be separately demarcated wherever possible for more profitable use of agricultural land and for facilitating improved technology-based cultivation.
- Initiatives will be taken for expansion of planned infrastructure on priority basis in the residential areas.
- Prior to new settlement in village areas, especially in island and char areas, necessary layout design has to be done.
- Families who become landless, displaced, shelter less due to river erosion, will be provided with shelter within a short time on priority basis and will be rehabilitated in the nearest government Ashrayan/ Adarsha Gram Project areas.
- Access to credit will be facilitated for those entrepreneurs who are involved in extension of modern housing facilities or construction of houses on rural areas. In addition, loan distribution from the rural housing fund will be continued.
- Special facilities and concessions will be provided to private house building societies and co-operatives for construction of multi-storeyed buildings (flat house) within the purchasing capacity of people with low and medium income.
- With the objective of building educated and skilled community leadership in the village, measures will be taken by the government to distribute rural land or apartments on hire purchase basis in the village among officials in order to encourage retired government employees to live in the village.
- Govt. initiative will be taken to implement the rural housing related policy contained in para 5.9 of the National Housing Policy amended in 1999 of the Ministry of Housing and Public Works.

Land Use and Development

- Bringing all fallow land unutilized water bodies of the country under planned cultivation will be expedited to ensure optimal use of land.
- All lands of all households of the country will be utilized in a planned manner for income generation in order for every home to become the center of economic development activities.
- There will be a legal binding for the owner of the land for taking prior permission form the government authority to use private agricultural land in their residential and commercial purposes.
- Giving priority to the use of land for rural poverty alleviation will be continued and ensured in the allocation, distribution and leasing out of Khash land and government water body.
- Application of the existing low regarding ownership of land and ponds will be ensured

in case of fallow cropland and derelict tanks.

- Land owners and farmers will be kept informed regularly in the best possible manner about the highest return crops could yield according to the location of lands and characteristics of soil.

Rural Industries Development

- For rural industrialization in appropriate sectors a conducive environment will be ensured through access to credit and marketing support.
- Establishment of agro-based food processing factories and sub-contracting factories of big factories will be encouraged in the rural areas.
- Establishment of 'handicrafts village' in advantageous locations at private and government initiatives will be encouraged.
- Necessary finance and government assistance, where necessary, will be provided for rehabilitation, extension and modernization of industries under cooperative initiative.
- Special assistance, facilities and support will be provided to co-operative initiatives for establishment of agro-processing and labour intensive factories in rural areas.
- Organized, controlled and effective programmes will be initiated to create a conducive environment for entrepreneurs interested in setting up small and medium scale industries in rural areas.

Empowerment of Rural Women

- Social and institutional initiatives will be taken for orientation of both men and women on various rules and rights relating to interests of rural women e.g., the Muslim family law, dowry law, marriage and divorce law, law of inheritance, law of prevention of violence against women and children, law relating to equality and rights.
- Side by side with raising women's consciousness, their male counterpart will also be made aware regarding their cooperation and responsibility towards development of women.
- Gender equity in social, cultural, economic and political matter will be promoted.
- Expansion of marketing facilitates will be ensured for the locally produced commodities of rural women entrepreneurs.
- Necessary steps will be taken for encouraging concerned rural women involved in all government and non-government programmes to be united through an effective network.
- Local administration will take initiatives to motivate and provide increased assistance to rural women so that they undertake income-generating activities according to their ability.
- Motivational training as well as other assistance will be provided for ensuring effective representation of women at all spheres of local government.
- Priority will be given to implementation of policies regarding women's equal rights, poverty alleviation, economic empowerment and employment as mentioned in National Women Development Policy 1997.

Rural Child and Youth Development

- Rural societies will ensure parental affection, family care, family education and physical and mental development rights for their children.
- Special arrangement will be made for ensuring social equality, equity, security and

equal status for women and children of each family.

- Favorable environment will be created for the youth community to organize meaningful cultural activities in order to mitigate alienation form the society and social misconduct resulting from unemployment, eroded social values, lack of initiative and aimlessness.
- To safeguard the youth community form harmful influences, measures will be taken for educating them on moral and human qualities, developing patriotism, organizing healthy sports and recreational activities along with involving them in various creative competitions.

Cooperatives for Rural Development

- The cooperative movement of the country will be further activated and made more meaningful by creating an appropriate institutional frame-work consistent with provisions of the constitution, organizing rural capital, arranging for necessary capital supply and taking measures for production, preservation, processing and marketing of agricultural and non-agricultural products through a demographic system.
- For institution building and sustainable development at grass roots level the active participation and involvement of the rural people in these institutions will be promoted.
- The practice of making necessary revision of cooperative laws will be continued with a view to making cooperatives time befitting.
- Greater network of cooperative-based production and marketing of rural agricultural produce will be encouraged.
- To promote cooperative leadership, BARD, RDA and the Cooperative Academy will offer relevant training courses.
- Efforts will be made to disseminate different successes of cooperatives through mass media in order to promote the cooperative ideas and spirit.
- Government will offer assistance to cooperative based ventures and industries considering their economic viability.

Rural Environment Promotion

- Environment friendly utilization of land and natural resources of development of rural environment will be ensured.
- With a view to preserve ecological balance and prevent indiscriminate damage of soil, forests, water ways and animals, regulatory measures will be taken and proper application of the National Environment law will be assisted.
- Necessary measures will be taken to scale down the use of chemical fertilizers and insecticides and increase the use of organic manure in agriculture.
- Social movement for motivating rural people to actively contribute to environmental sustainability, live healthy lives and prevent pollution of soil, water and air will be strengthened.

Research and Training

- Training will be arranged to create skilled planners and adequate number of project managers with a view to formulating and implementing appropriate rural development programmes/ projects.
- Special training will be arranged for officials of all institutions involved in human resources development. In this regard, optimal utilization of training institutions

engaged in rural development and poverty alleviation will be ensured.

- In case of selecting research issues and conducting research in order to help solve rural problems, action oriented research aimed at solving problems as perceived by the rural people will be preferred to academic research aimed usually at formulating recommendations only.
- Rural people, and functionaries working with different govt. and non-govt. organizations having the common goal of development will be encouraged to get involved in generating innovative ideas to help solve diverse problems of rural areas.

Information Dissemination and Data Base

- Effective measures will be taken disseminate various information relating to rural development through mass media, folk media and interpersonal channels of communication.
- Effective measures would be ensured for the systematic preservation of subjectwise information and data applying computer technology to help conduct research on various sector of rural development.
- Proper steps would be taken to enrich the database through creating network among the similar training and research organizations, both local and foreign. 4. BARD, Comilla; RDA, Bogra; RDTI, Sylhet; Bangladesh Cooperative Academy and other relevant organizations at national level will be developed as the national repositories of all data on rural development related research, training, project experiences, govt. and non-govt. efforts and all other relevant and useful data in this field. All the preserved data and information will be made accessible, available and unrestricted to all levels of national and international users.

Perspective Plan of Bangladesh 2021-2041 also depicts Rural Infrastructure development as a catalyst for improvement of rural economy. By 2041 the expectation is that the economy will have joined the ranks of High-Income countries when poverty will be a thing of the past, people will have access to universal healthcare, under-employment and low-income will have been eliminated, the population will be literate and endowed with the knowledge of the latest technology in all spheres of economic activity (particularly in education, industry and services). And all this will be achieved without damaging the environment so that land, water and forestry resources are preserved, and citizens have access to clean air, safe water, green space and bio-diversity.

Two principal visions underpin the PP 2041:

- Bangladesh will be a developed country by 2041, with per capita income of over USD 12,500 in today's prices, and fully in tune with the digital world.
- Poverty will become a thing of the past in Sonar Bangla.

Further in the 8th Five Year Plan "Promoting Prosperity and Fostering Inclusiveness" Government also identifies rural physical infrastructure development as a strategic choice for alleviation of poverty as well as pivotal for attaining targeted growth of 8.51% at the end of 2025.

Not surprisingly, international analysts are describing Bangladesh as the "poster-child" of development, a significant upgrade from the 1970s ubiquitous stamp of "a test case of development". Bangladesh today is a shining example of a development miracle, having earned international acclaim on its tremendous success in attaining MDGs, particularly in the areas of poverty alleviation, food security, gender parity in primary and secondary education, infant and under-five mortality, and maternal mortality. The gains in human development could now further fuel economic growth through a virtuous circle and positive synergies. Thus, the economy is poised for higher attainments. Understandably, the challenges are formidable calling for robust strategies and steadfast policy commitment all the way.

The global business community now recognizes Bangladesh as a nation of dynamic first-generation industrial entrepreneurs who can compete with established players in the world market. The export performance of readymade garments (RMG) has been exemplary and exporters are breaking into new markets with new products such as ocean-going vessels, consumer electronics, footwear and a variety of home appliances. Building on this progress, the nation is marching on to move up to Upper Middle-Income country (UMIC) by 2031, and attain High Income Country (HIC) status by 2041. All this will be possible as Bangladesh moves to harness its vast population resource by converting its demographic dividend into formidable human capital for future transformation of the economy and society. Bangladesh is also acutely aware of the vulnerabilities it faces from its deltaic geography, environmental degradation from population pressure, and climate change. Therefore, maintaining environmental and ecological balance throughout the development process remains and will remain a cardinal policy principle. Accordingly, the PP 2041 seeks to ensure the long-term sustainability of growth through the adoption of a green growth strategy that fully reconciles growth, technological transformation, poverty reduction, and environmental protection within a sound macroeconomic framework that enshrines fiscal prudence imbued with growth dynamism.

The transition - indeed transformation - can be realized through a process of rapid inclusive growth leading to the elimination of poverty while increasing the productive capacity, building an innovating knowledge economy and protecting the environment. The cornerstone of an inclusive and sustainable development strategy is a robust program of job creation through export-oriented manufacturing growth backed by digital technology of the knowledge economy while ensuring that the key natural resources like land, water, forestry, natural habitat and air are used in a manner that avoids their depletion and degradation.

No doubt the country faces daunting challenges. The transformation will be taking place in the context of a global economy that is undergoing profound change, creating opportunities but also facing serious downside risks from economic, political and social conflicts and climate change. A fast-paced technological revolution, the digital age, is ongoing that will eventually change the way we live, work, and interact with the global community. As against this positive development, the resurgence of nationalism of the late 19th and early 20th-century variety in many advanced economies and the rising risks of global conflicts are threatening to disrupt global trade, commerce and finance. Over the next 20 years, Bangladesh's socio-economic transformation will be much more fundamental than anything experienced in the past 20 years. Properly harnessing and negotiating the positive global forces to advantage and ability to countering the adverse factors will enable Bangladesh to grow at higher rates in future that was simply not possible before. A strong positive growth-generating factor is the aspirations of poor people for upward mobility. In these evolving circumstances, building an inclusive society with shared prosperity in a sustainable manner will require ever-greater ingenuity, innovative strategies, strong institutions, social equity and participation, and good command over cutting-edge technologies to unleash the full potential of Bangladeshi entrepreneurs to create good jobs and grow the economy out of poverty and on to prosperity. To make all this happen, programs and institutions will have to be put in place to generate rapid, inclusive and sustainable growth. By 2041 the expectation is that the economy will have joined the ranks of High-Income countries when poverty will be a thing of the past, people will have access to universal healthcare, under-employment and low-income will have been eliminated, the population will be literate and endowed with the knowledge of the latest technology in all spheres of economic activity (particularly in education, industry and services). And all this will be achieved without damaging the environment so that land, water and forestry resources are preserved, and citizens have access to clean air, safe water, green space and bio-diversity.

Strategic Goals and Milestones of the PP2041

The following strategic goals will be pursued as the essential components of economic policy over the long-term:

- Eradication of Extreme Poverty by 2031; reducing Poverty to less than 3 percent by 2041
- Towards Upper middle-income country by FY 2031; High-income country by 2041
- Industrialization with export-oriented manufacturing will drive structural transformation into the future
- Paradigm shifts in Agriculture will enhance productivity and ensure nutrition and food security for the future
- A Service sector of the future will provide the bridge for the transformation of the rural agrarian economy to a primarily industrial and digital economy
- The Urban transition will be an essential part of the strategy to move to a high-income economy
- Efficient Energy and Infrastructure will be essential components of the enabling environment that facilitates rapid, efficient and sustainable growth
- Building a Bangladesh resilient to climate change and other environmental challenges
- Establishing Bangladesh as a knowledge hub country for promoting a skill-based society

PP2041 Vision for the Transport Sector

The PP2041 Vision for the transport sector envisages a Bangladesh where:

- There is seamless flow in passenger and goods traffic and transport facilities are available on demand. People have efficient choices between different modes of transport facilities at affordable cost and time.
- All transport services are provided competitively with no barriers to entry and exit for service providers.
- There is strong inter-district and inter-regional connectivity with neighboring countries for passengers, goods and services with choices of alternative transport modes.
- The safety standards are well established and the transport system is accountable through legal provisions for full compliance with safety standards.
- Urban traffic flows are well managed through a combination of mass rapid transit (MRT)/ Metro Rail Network and private options that balance commuter needs for easy transit with avoidance of massive congestion.
- All parking and traffic laws are enforced with appropriate sanctions for non-compliance irrespective of political or administration connections.

Strategy for road transport in PP2041:

The main elements of the strategy for road transport include:

- Consolidating and upgrading National Highway Networks through multi-laning of existing highways, by establishing access-control long-distance expressways, and by creating service lanes to ease connectivity to local roads. Strict axle load control policy would be established and enforced to reduce road damages caused by overloading. The focus will be given to developing quality infrastructures with hallmark attribute of high-speed mobility facilities. The target would be 80-110 kmph for important highway corridors, which is now operating merely at 25-35 kmph. Bypasses around towns would be planned and provided as access-controlled expressway type facilities with entry/exit at predetermined locations.

- Establishing connectivity with inter-regional highways, economic zone areas, ports, airports, power stations, inland water transport facilities, rail stations and rail freight centres and major tourist resorts to maximize the benefits of the highways system.
- Ensuring inter-district connectivity for all districts that are not connected through the national highway system. This can be achieved by upgrading existing roads and bridges and where necessary by creating new expansions. All inter-district roads would eventually be upgraded to at least 4-lane facilities. To reduce the risks of accidents, there should be a separate lane for slow-moving vehicles.
- Creating highway and inter-district facilities to provide restroom and food facilities for travelers and essential services such as gas stations, emergency repairs, for facilitating highway mobility. While the private sector will make the investment, government policy can facilitate through land allocations, necessary permits and security facilities.
- Upgrading of all zilla and Upazila roads to facilitate easy transport connectivity between production and consumption centres. This will also motivate and influence location decisions for manufacturing enterprises and facilitate labour mobility. These roads would at a minimum be 2 lanes, but in some areas where traffic pressure is intense, they would require 4-lanes
- All village roads would be converted to asphalt standard with at least one lane to facilitate rural mobility of passengers and products. The road connectivity will be a major investment for reducing poverty, improving human development, and promoting rural investment in micro and small-scale non-farm enterprises.
- O&M of highway, bridge, culvert and roads are a high priority strategic element for the road sector. Financing is always a constraint. The development and implementation of a well-designed road user charges will be instrumental in providing resources for road upgrading and maintenance. For highways and major bridges, the use of tolls will provide funding for O&M.

The 8th Five Year Plan acknowledges rural infrastructure development as the key to socio economic development and poverty reduction of rural people. The 8FYP states 'An improved road communication system reduces road user costs and costs of production and thus facilitates socio-economic development of the country. It contributes to the reduction of poverty by creating employment opportunities for all, including women, increasing the mobility of working people and facilitating the distribution of capital and consumption of goods. Moreover, it contributes to the expansion of markets, augmentation of regional balance and creation of investment opportunities, all of which are conducive to economic growth and poverty reduction.

The main targeted priorities for rural development and maintenance during the 8FYP is as follows-

- Up-gradation/ Double lane of rural core road network with climate, disaster and other impact resilient design (16000 Km)
- Improvement of prioritized Upazila road, Union road and village road to establish better connectivity with villages and thus increasing Rural Access Index (RAI) to 90 per cent from 84 per cent (Survey 2018) (33,000 Km)
- Construction/ reconstruction/ rehabilitation/ widening of 165,000-meter bridges on core road network and other Upazila roads, Union roads and village roads

Improvement of Road Safety Engineering at junctions of LGED roads with National Highways

Improvement of the selected Union Road. (8000 Km)

- Development of 500 Growth Centre centric urban centre with physical planning, water supply, waste management
- Development of Growth centres and Rural Markets - 1200 Nos.
- Construction of all remaining Union Parishad Complexes (1166 Nos.)
- Extension of Upazila Complexes (400 Nos.)

The main task of the 8FYP is to start the implementation of Perspective Plan 2041 in a way that it brings Bangladesh closer to the goals of attaining Upper Middle Income Country (UMIC) status, attaining major Sustainable Development Goal (SDG) targets, and eliminating extreme poverty by FY2031. In the backdrop of these factors, the 8th Plan centres on six core themes:

- Rapid recovery for COVID-19 to restore human health, confidence, employment, income and economic activities;
- GDP growth acceleration, employment generation, productivity acceleration and rapid poverty reduction;
- A broad-based strategy of inclusiveness with a view to empowering every citizen to participate fully and benefit from the development process and helping the poor and vulnerable with social protection- based income transfers;
- A sustainable development pathway that is resilient to disaster and climate change; entails sustainable use of natural resources; and successfully manages the inevitable urbanization transition;
- Development and improvement of critical institutions necessary to lead the economy to UMIC status;
- Attaining SDG targets and coping up the impact of Least Developed Country (LDC) graduation.

Fourteen ministries/divisions and twenty agencies, particularly, the LGD, Power Division, Ministry of Education, Ministry of Primary and Mass Education and ICT Division, are involved in rural transformation. In connection with the vision, "My village My Town", the LGD has been entrusted with the coordinating roles in the development of Rural Transportation; Rural Growth Centers and Hat Bazar; Rural Water Supply; Rural Waste Management; Community Space and Recreational Facilities; Upazila Development/Master Plan.

My Village My Town: Ensuring urban facilities into the rural areas of Bangladesh:

- Climate resilient core road network development up-to every village supportive to accommodate high middle income economy will be given priority.
- The Local Government Division will take appropriate measures to prepare Upazila Master Plan and enact the plan through the LGIs so that the villages can transform into rural township in a proper, efficient and planned way restoring the ecosystem of the economy. LGD will also work for capacity building of LGIs so that they can enact and enforce the master plan at root level of the country.
- Availability of safe water will be a top priority in all villages with special attention to salinity prone coastal areas, arsenic prone areas, hilly, haor and char areas. There will be gradual increase of piped and mini piped water supply in densly populated villages throughout the country. At the same times, special effort will be given in sanitation and fecal sludge management for restoration of aquative environment of the rural areas.
- Effective Waste Management Model will be developed for Rural Growth Centres/Markets and as well as villages. Capacity of LGIs will be enhanced to deal with waste management at rural level.
- Local Government Engineering Department under Local Government Division will

develop community spaces and recreation facilities in the villages under their 'My Village - My Town' programs.

- Rural infrastructure development with support services will be given high priority in order to create a positive environment for rural job creation;
- Agro-based small industries will be encouraged in rural areas and congenial atmosphere for business and commerce should be ensured to create employment opportunities for youths, especially higher educated ones who will be the human capital resources of the future;
- Training schemes for rural youths will be strengthened as per their education level, job prospect and family requirement,
- Improvement of rural law and order will be ensured,
- There will be programs to encourage and support small and medium entrepreneurship,
- Foreign and local investment in rural areas will be encouraged to create employment opportunities,
- Access to bank credit will be improved;
- Sound regulations will be introduced to restrict improper use of agricultural land,
- Digitalization of land records will be undertaken,
- Program of recovering lost government land, particularly khas land including already filled-in riverbank and canals;
- All villages will be connected with Upazila headquarters;
- Decentralization of fiscal and administrative powers would strengthen the Upazila in providing required services to the grassroots.
- At present, there are 2100 rural growth centers throughout the country. The number of growth centers was determined during 1990s. With a number of strategies to develop the growth centers and connecting them with better roads, the rural economy has experienced a significant lift. At the current pace and growth of the economy, it is imperative to increase the number of growth centers throughout the country and use them innovatively for employment creation and overall growth of the rural economy.

The 8FYP is the stepping stone for the implementation of "My village My Town" vision. The 8FYP takes a huge step towards this vision. The steps are -

Rural Transport Development & Management

(1) Rural road development strategy.

- Development of climate, disaster and other impact resilient rural transportation network that will be able to accommodate a vibrant middle- income economy and gradually lead to a developed nation economy;
- Development of roads with more economic and social priority that will be able to generate more employment, other economic-social benefits simultaneously will add more growth to rural economy. Development of prioritized roads at the first phase will accelerate more growth and eventually will generate money for less priority roads;
- Multimodal transport development for Haor, Wetland and Hilly regions so that the people of these areas can merge with the present pace of development of the country restoring the ecosystem; and
- Rural road master plan will be followed and preservation of agricultural land will be considered during new road development and up-gradation.

(2) Rural Road Operation and Maintenance Strategy

Active involvement of UPZs, UPs and local communities will be considered for operation and maintenance of the rural roads. A framework will be developed for their

scope of involvement;

- Technology driven road asset information system will be developed to assess the maintenance need with more accuracy and respond quickly;
- An efficient system for patch repairing and potholes management will be developed so that the roads can be restored immediately without further deterioration;
- For rehabilitation of rural roads after major disasters, 'Build Back Better method' of 'Sandai Framework of Disaster Risk Prevention' will be followed;
- Maintenance of existing rural roads will be given priority over new road development and justified fund will be allocated according to demand for maintenance; and
- A comprehensive asset management policy, strategy will be developed and required capability according to policy, strategy will be developed for a holistic management of rural road asset.

(3) Strategic priorities for rural road network

- LGED will upgrade and maintain the rural road network in the master plan. The road network will be developed in a way to withstand floods and disasters, which will connect the growth centre/markets, villages and Upazila roads. The Upazila road network will connect with the economic zones, special economic zones, export processing zones, industries, land ports, river ports, sea ports and railway stations. It will also include construction/reconstruction of bridges/culverts on these roads. Connectivity with railway and waterways will be given priority to integrate multimodal transport system with rural road network. Existing paved road network will also be included. Based on the economic and social importance, the core roads will be selected;
- The second priority will be to improve Upazila Roads, Union Roads and Village Roads including culverts/bridges which have strategic importance to connect road network, disconnected villages and major population of a village, railway, waterway and major farmlands. The selection of these roads will be based on economic and social priority; and
- The third priority will be the inter villages and intra-villages roads connectivity

Rural Growth Centre/Markets

Rural growth centres/markets work as a catalyst for supply-chain system, and add value to local products. My Village-My Town envisions a vibrant rural economy with available jobs, high growth and standard rural livelihood. The following strategies will be undertaken during 8FYP for rural transformation:

- More Growth centre/markets (GCs) will be developed near the economic zones to create synergy in development and thus more employment opportunities;
- Special GCs will be developed at some areas to promote special localized products such as mangoes, watermelon, vegetables, guavas etc;
- The GCs will be facilitated to provide e-commerce, bank-agent banking, cold storage facilities and food processing and agricultural value-chain creation; and
- The GCs will be a hub of dynamic rural economy, restoring environment and adding beauty to landscape. It will support supply-chain and add value to farm and non-farm products.

Rural Water Supply & Sanitation

Water supply and sanitation is an important an integral part of My Village-My Town. The following strategies and targets will be undertaken during the 8FYP:

- A piped water supply has been targeted in the densely populated villages; the

strategy will be different in villages where households are located sparsely. Such initiative must follow an in-depth study on the beneficiaries' regarding the 'willingness to pay' for the service;

- The priority will be given to 117 arsenic-prone Upazilas and salinity-prone coastal Upazilas;
- Pond digging will be extended in coastal areas for safe water supply;
- Improved latrine will gradually replace the 'pit latrine'. In the 8FYP, the target is to increase coverage from 61% to 70%; and
- Suitable strategies will be undertaken for faecal sludge management in rural areas.

Rural Waste Management

The waste management strategies in the rural areas include:

- The rural community will be involved in waste management. Awareness campaign will be done at all community levels;
- Two business models of waste management – degradable and recyclable – will be developed, involving the UPs in 100 UPZs at the beginning;
- A business model will be developed for waste management at 500 GCs, initially.

Upazila Development/Master Plan

Transformation of the villages will require careful justification and planned land-use. Looking at challenges in urban areas, the following strategies and targets will be undertaken for UPZs Master Plan under 8FYP period:

- Relevant ministries/agencies will develop National Physical Plan by 2022;
- The UPZ Master Plan will target the long-term strategic plan, mid-term sectoral plan and short-term detailed area plan by 2025 for 250 UPZs (by 2030 for all). Prioritize the list based on existing growth, environmental sensitivity, and development potentials; and
- UPZs will be adequately staffed with the posts of 'Senior Planner' and associates to enforce the master plan;

Community Space and Recreational Facilities in Villages

For an inclusive development, adequate communal facilities for children, adolescents, youths and elderly will be promoted. The following strategy and targets have been set out under the 8FYP:

- UPZ plan will incorporate spaces for Mini Stadium, Multimedia centre, Mini-theatre, Youth sports centre as per 2018 election manifesto;
- A policy will be taken to open up the fields and playgrounds of educational institutions community people;
- The vicinity of bridges will be developed as recreational space under bridge development, and walkway and park on the banks of rivers/canals;
- LGD will develop provision for community spaces in public housing, implemented by LGED and UPZs; and
- The UPs premises will be used for Union Digital Centres, as well as for community learning centres.

Capacity Development of UPZ & UP

Some of the featured initiatives for the UP and UPZ that would facilitate rural transformation include:

- Capacity building of UPZs for enforcement of Master Plan;
- Appropriate coordination between UPZs/UPs and concerned ministry to evaluate activities under My Village-My Town;
- Adequate staffing and strategies to increase the revenue of UPs; and
- Appropriate guidelines for UPs in regards to service delivery, including waste management

The Country Scenario

Rural Road Network

At present, total length of the Upazila road in the country reaches 37,254 km and that of the Union road accounts for 41,828 km. Village roads length comprises 274,251 km. Out of these lengths, 30,590 km (87.5%) of Upazila road have been paved to the date, while the proportion of improvement for Union road remains only below 66.1% (27,666 km). For Village road the total improved length is 53,884 Km (19.6%). Division wise present condition of upgrading/ improvement for Upazila road, Union road and Village roads are shown in Table below.

Table - Division wise Road Summary

Name of Division	Upazila Road (UZR)			Union Road (UNR)			Village Road (VR)		
	Total	Developed	Need to be Developed	Total	Developed	Need to be Developed	Total	Developed	Need to be Developed
	km	km (%)	km	Km	km (%)	km	km	km (%)	km
Rangpur	4,735	4,204 (88.8%)	531	6,175	3,149 (51.0%)	3,026	29,262	3,156 (10.8%)	26,106
Rajshahi	5,630	5,042 (89.6%)	588	5,633	3,994 (70.9%)	1,639	28,916	6,537 (22.6%)	22,379
Khulna	5,441	5,126 (94.2%)	315	4,930	4,117 (83.5%)	813	40,048	10,733 (26.8%)	29,315
Dhaka	6,501	5,858 (90.1%)	643	7,101	5,080 (71.5%)	2,021	48,246	11,732 (24.3%)	36,514
Chittagong	6,240	5,057 (81.0%)	1,183	7,526	5,140 (68.3%)	2,386	56,104	11,455 (20.4%)	44,649
Barisal	3,170	2,753 (86.8%)	417	4,320	2,652 (61.4%)	1,668	36,136	5,304 (14.7%)	30,832
Sylhet	2,683	2,135 (79.6%)	548	2,700	1,665 (61.7%)	1,035	17,056	3,176 (18.6%)	13,880
Mymensingh	2,854	2,414 (84.6%)	440	3,442	1,870 (54.3%)	1,572	18,482	1,791 (9.7%)	16,691
Total	37,254	32,590 (87.5%)	4,664	41,828	27,666 (66.1%)	14,162	274,251	53,884 (19.6%)	220,367

Structure and Gaps on Rural Roads

At present, total length (linear meter) of structures (bridges/culverts) on Upazila roads in the country is 506240 meters and that on the Union roads accounts for 422698 meters. Length of structures on Village road comprises 1050733 meters, while existing gaps on Upazila, Union, and Village roads remain 81100 meters, 95400 meters and 465381 meters respectively. Division wise present condition of development of structures on Upazila roads, Union roads and Village roads is shown in Table below.

Table - Division wise Structure length and gaps

Name of Division	Structure on Upazila Roads			Structure on Union Roads			Structure on Village Roads		
	Total	Developed	Existing Gaps	Total	Developed	Existing Gaps	Total	Developed	Existing Gaps
	m	m (%)	m	m	m (%)	m	m	m (%)	m
Rangpur	47,470	44,098 (92.9%)	3,372	51,273	44,163 (86.1%)	7,110	108,824	72,370 (66.5%)	36,454
Rajshahi	61,180	55,189 (90.2%)	5,991	47,319	35,743 (75.5%)	11,576	82,199	52,126 (63.4%)	30,073
Khulna	41,445	38,065 (91.8%)	3,380	28,736	25,483 (88.7%)	3,253	83,283	56,160 (67.4%)	27,123
Dhaka	116,013	94,898 (81.8%)	21,115	90,623	67,933 (75.0%)	22,690	211,253	103,021 (48.8%)	108,232
Chittagong	83,516	65,328 (78.2%)	18,188	73,699	56,586 (76.8%)	17,113	201,254	101,746 (50.6%)	99,508
Barisal	56,740	46,769 (82.4%)	9,971	56,728	44,632 (78.7%)	12,096	202,282	117,194 (57.9)	85,088
Sylhet	50,687	38,715 (76.4%)	11,972	34,512	23,206 (67.2%)	11,306	80,603	38,393 (47.6%)	42,210
Mymensingh	49,191	42,079 (85.5%)	7,112	39,805	29,551 (74.2%)	10,254	81,031	44,341 (54.7%)	36,690
Total	506,240	425,140 (84.0%)	81,100	422,698	327,298 (77.4%)	95,400	1,050,733	585,352 (55.7%)	465,381

Growth Center Market (GCM) and Hats

In the context of rural Bangladesh, the growth center markets are focal points not only for the sale of rural products and consumer goods but are equally important as the major distribution point for agricultural inputs and other economic and social activities. In 1982, the Planning Commission made a comprehensive survey throughout the country and selected a total of 1400 rural markets to be upgraded/improved as the Growth Center within the context of marketing investment. Later in 1993, another survey conducted by the Planning Commission and the number of Growth Center to be upgraded/improved was increased to 2100 of which 1645 GCs (%) has been developed in total (PM&E database, LGED 2016).

In addition to the GCs, there are 15555 hats throughout the country. Some of the hats are generating good revenues and being auctioned yearly. This contributes a good amount of money to the local Upazila Parishads and Union Parishads. Among the 15555 hats throughout the country 5066 hats has been developed by different GOB projects and DP funded projects. There are more 10489 number candidate hats throughout the country that are needed to be improved.

The Proposed Project

LGED, as an agency of the central government, is mandated for planning and implementation of infrastructure development projects in the rural and urban areas in the sectors of Agriculture, Water Resource and Rural Institutions; Physical Planning, Water Supply and Housing (PPWS&H) as a part of the socio economic development and poverty reduction strategy of the country. The agency is also responsible for providing technical support to the rural and the urban local government institutions (LGIs).

To that end, LGED has been implementing rural development programs in the country financed by the government as well as by the help of development partners. These projects have generated enormous positive socioeconomic impact in the country.

In accordance with the strategies for rural development of the GOB, the Executing Agency

(EA) Local Government Engineering Department (LGED) has taken the initiative to conduct a detailed feasibility study to formulate the proposed "Cox's Bazar District Rural Infrastructure Development Project" (hereinafter referred to as "the Project") with objectives to improving of rural road network and marketing facilities to encourage increased agricultural production and to generating employment opportunities for the rural poor represented by landless farmers and destitute and disadvantaged women. The Project envisaged the following components:

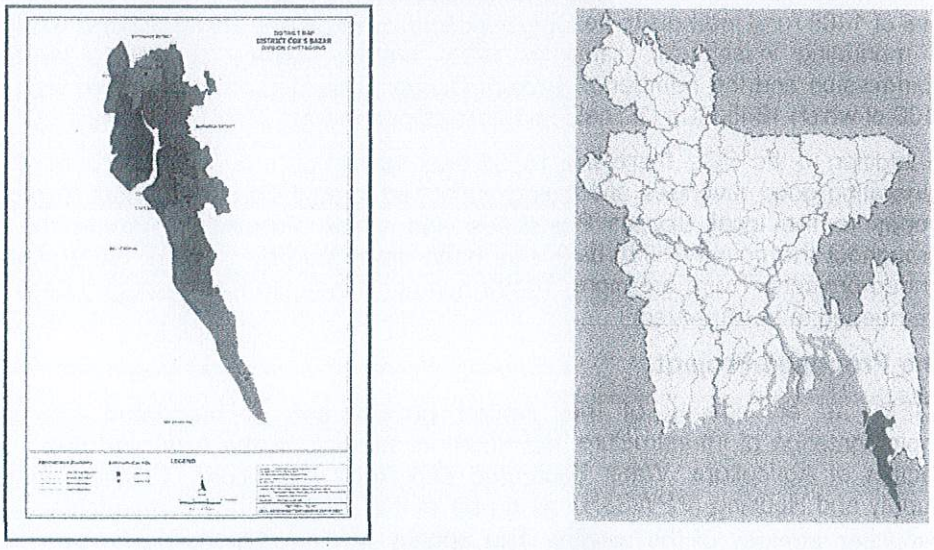
- Improvement of Upazila Roads (11.30 Km)
- Improvement of Union Roads (53.53 Km)
- Improvement of Village Roads (269.56 Km)
- Construction of 1315.00 m of Culvert on rural roads
- Construction of 816.00 m of Bridge on rural roads
- Improvement of Shed of Rural Market, Internal Road and Drainage (05 Nos)
- Construction of Boat Landing (05 Nos)
- Rehabilitation of Rural roads (70.00 km)

This Feasibility Study report describes rural infrastructure necessity in its entirety in the Project District. The total cost of the Project, which comprises of investment for the above components and other expenses as land acquisition, procurement of equipment and supervision vehicles, staff of project implementation unit, consulting services of the Project is estimated at Tk. 72000.00 lakh BDT including physical contingencies and price escalation.

A participatory approach has been used involving consultation with stakeholders and potential beneficiaries down to grass-root level. The design of the Project applies the lessons learned and builds on the experience accumulated from earlier and ongoing support to the rural infrastructure sector by different financing agencies.

The Project Area

The Project area comprises 09 (Nine) administrative upazilas of Cox's Bazar District, located in the southeast part of Bangladesh. The total area of this district is 2,491.86 sq. km.



Picture – Cox's Bazar District Map

2.2 Objectives of the Feasibility Study

The objective of the study was to provide the necessary data, information, and analysis sufficient to determine the feasibility of the proposed project titled Cox's Bazar District Rural Infrastructure Development Project. Under these projects, roads and bridges/culverts

construction will be done to increase the quality of life. The major objective of the study is to find out the benefits of the project. How the project will improve the lifestyle of the inhabitants of this area. How it will improve the communication between the wards and inside the wards. It will also reveal cost benefit of the proposed project. Under this project, proposed roads will be improvement and maintenance for meeting the growing demand of the local people. Another major objective of the study is to find out the benefits of the project. How the project will improve rural communication network to facilitate farm/non-farm economy and how the project will upgrade life standard of rural people by providing easier and quicker access to basic service delivery centers like schools, hospitals etc. and finally improve the lifestyle of the inhabitants of the project area.

2.3 Approach and Methodology of the Feasibility Study

This study primarily evaluated intangible benefits from rural road improvement, rural road rehabilitation, bridge/culvert construction, maintenance and re-construction. The most valuable and significant intangible benefit from road improvement is time saving which means cost savings from users and whole economy gets benefit from it. On the other hand, significant benefits comes from road user costs which arises from decreased operating costs of vehicle, fuel cost saving from higher operating speed which are quantified in terms of money by making some assumptions. Although there are other indirect benefits such as decreased accident losses, benefits of roadside property etc. is not considered in this study. Finally, aggregated benefit and cost was analyzed to determine Net Present Value (NPV), Benefit Cost Ratio (BCR) and Internal Rate of Return (IRR) to find the economic feasibility of the project.

2.4 Organization of the Feasibility Study

This feasibility study is specifically made for the Cox's Bazar District only. This study will determine the present condition of the area of these proposed activities. Besides this, extant of urgency and shortfall of this project activities will be discovered. Moreover, apart from the cost benefit analysis this study will try to identify intangible benefits and cost generated from these proposed activities during site visits. The purpose of the visit was to observe and explore existing site conditions, investigate off/on site infrastructure and available facilities, land acquisition and resettlement issues, environmental and social aspects, etc. The team also visited various offices and collect relevant documents, for example location maps of the sites etc. and other information related to the project. The team discussed the previous activities related to the project with engineers and others conversant with the features of the

Section 3: Market/Demand Analysis

3.1 Problem Statement

Cox's Bazar district is located in the southeast part of Bangladesh. It is bounded by Chattogram district on the north, Bandarban district, and Myanmar on the east, Bay of Bengal on the west and South. Most of the people in this district depend on fishing and collecting seafood and sea products, agricultural for their livelihood. Marine and inland fishing and salt production are other industrial sources play important roles for district economy. Cox's Bazar District consists of 09 upazilas, 04 municipalities and 71 union parishads. Main rivers of the district are Matamuhuri, Bakkhali, Rezu, Kohelia and Naf. 79.50% upazila roads, 71.40% union roads and 25.40% village roads of Cox's Bazar District have been developed. These district have already developed 289.80 km of upazila roads out of 364.60 km, 344.70 km of union roads out of 483.10 km, 908.80 km of village roads out 3583.30 km. whose average progress is 34.80%. This average rate is 33% in the whole country.

The analysis of the overall economy of the country shows that the infrastructure improvement of Cox's Bazar District is comparatively higher than that of other districts. Supportive infrastructure is needed to accelerate and accelerate the economy of this department. At present, with the increase in travel facilities in rural areas, industrial establishments have sprung up in the rural areas around the city. The number of vehicles on the rural road network has increased and heavy vehicles are plying regularly.

There is a need to up-grade the upazila and union road network of Cox's Bazar district which has emerged as backbone of Bangladesh rural economy. There is a huge demand for development of roads, bridges / culverts, hat-bazaars in Cox's Bazar area. Mostly these roads are not all weathered roads and not have the designed capacity to bear the last of heavy truck loads which are common during transport of the farm products as these rural roads connect millions of farms. The proposed feasibility study has been formulated for the development of socio-economic and area based networks of the people of different upazilas of Cox's Bazar districts. If implemented, the project will establish easy and uninterrupted communication in the project area, facilitate marketing of agricultural products and create employment opportunities.

3.2 Relevance of the Project Idea

Bangladesh is the most densely populated country in the world. It is a fast moving developing country. Eighty percent of the country's population lives in villages. Despite significant achievements in poverty alleviation over the past decade, poverty exists across the country, but its impact is much greater in rural areas. According to statistics, 24.8% of the population currently lives below the poverty line. Rural poverty in Bangladesh is characterized by landless population, overpopulation, underdevelopment in agriculture, high unemployment, low income and scarcity of credit facilities. At present 45% of the rural manpower of the country is working in the agricultural sector. More than 40 percent are engaged in various activities in the non-agricultural sector. The role of rural infrastructure in reducing rural poverty, sustaining rural economy and sustainable growth in Bangladesh is widely discussed. Rural infrastructure increases employment in both agriculture and non-agriculture sectors and keeps the rural economy afloat.

The Eighth Five Year Plan to be implemented during 2021-25 has given priority to growth and empowerment of the people. The plan aims to achieve 8% economic growth. Urban and rural infrastructure development will play an important role in achieving this growth. To this end, the five-year plan Transport & Communication and Local Government & Rural Development have outlined a number of specific strategies to identify urban and rural infrastructure development as one of the tools to change the socio-economic condition of the country. The proposed project will help in the implementation of the above objectives.

The SDG agenda is a plan of action for the people, planet and collective prosperity by seeking to strengthen global peace and larger freedom, and eradicating poverty in all its forms and dimensions. Sustainable Development Goals contains 17 Sustainable Development Goals (SDGs) and 169 targets, which reflects the scale and ambition of the global community seeking to realize human rights, gender equality and empowerment of all. After the successful attainment of MDG goals the government is now set to achieve the Sustainable Development Goals (SDG's). Many of the SDG Goals and targets coincide with the targets of Eighth Five Year Plan and Perspective Plan of Bangladesh. This project will directly help to achieve three SDG goals.

Goal 1: To eradicate all forms of poverty everywhere. The construction of infrastructure creates employment at the local level, which helps in alleviating poverty. In addition, it facilitates marketing of various products and expands investment opportunities. As a result, economic growth is achieved and poverty is alleviated. If the proposed project is implemented, poverty in the project area will be reduced. Thus the project will help in achieving Goal-1 of the Sustainable Development Goals.

Goal-2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. Rural road, bridge culvert development increases production of agricultural and non-agricultural products and reduces transportation and marketing costs. As a result, food and nutrition security of the people at the local level is increased. Thus the project will help in achieving Goal-2 of the Sustainable Development Goals.

Goal-5: Achieve gender equality and empower all women and girls. Free and easy access to economic and social centers is essential for the empowerment of women and girls in any region. Through the development of communication system of the rural area, it will be easier for women and children to avail various social / civic opportunities which will help in the empowerment of women and girls. The project proposed in the above manner will help in achieving Goal-5 of the Sustainable Development Goals.

Goal-9: To build sustainable infrastructure, inclusive and sustainable industrialization and encourage innovation. The project has been proposed to improve the communication system by building sustainable and sustainable infrastructure. Thus, the proposed project will help achieve Goal-9 of the Sustainable Development Goals.

The Ministry of Local Government, Rural Development and Cooperatives is responsible for changing the socio-economic condition of the people by accelerating the pace of economy through construction and maintenance of infrastructure in urban and rural areas of the country. To this end, LGED is working to drive productivity growth, job creation, socio-economic development, expansion of local governance, poverty reduction and local development through local infrastructure development and management in the agricultural and non-agricultural sectors. The main objective of the proposed project is to improve the socio-economic condition of the people through the development of urban infrastructure. Therefore, the proposed project will help in achieving the mission and vision of the concerned ministries, departments and agencies. Matters relating to local government institutions including local government are vested in the local government department. So the project is fully in line with the allocation of business of the local government department.

3.3 Proposed Project Interventions

Implementing authority and Government of Bangladesh should keep an eye to the important issue that includes the inputs of the project i.e. Construction work contract, Finance and equipment. Again after completion of the project output will be improvement of upazila, union & village roads including Improvement of Upazila Roads (11.30 Km), Improvement of Union Roads (53.53 Km), Improvement of Village Roads (269.56 Km), Construction of 1315.00 m of Culvert on rural roads, Construction of 816.00 m of Bridge on rural roads, Improvement of Shed of Rural Market, Internal Road and Drainage (05 Nos), Construction of Boat Landing (05 Nos) and Rehabilitation of Rural roads (70.00 km).

Under this project mainly improvement of upazila, union, village road construction and construction of bridges/culverts on rural roads will be done. LGED has already implemented a number of similar projects and several more similar projects are currently under implementation. Considering the results of such projects completed in the last few years, it can be seen that such projects have played a positive role in changing the socio-economic condition of the rural areas. The successful implementation of the project works has contributed to the selection of qualified contractors, quality control, and regular site inspections etc.

Due to selection of non-qualified contractors during the implementation of the project, errors in procurement process, construction work being stopped due to early monsoon or heavy rains. Moreover lack of cooperation of local people during construction work, illegal occupants, and complexities related to space, abnormal increase of cost in construction materials etc. may hamper the implementation of the project. Regular PIC and PSC meeting helps the implementation of the project. So this project need to regular monitoring and implementation.

3.4 Stakeholders

The term stakeholder is used as a general term to describe individuals, groups, or organizations that have an interest in the project and can mobilize resources to affect its outcome in some way. A formal definition of a stakeholder is "Individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion" (Project Management Institute 1996). Project stakeholders usually include the project manager, the customer, team members within the performing organization, and the project sponsor. However, there are more than just these few. According to Investopedia, A stakeholder is a party that has an interest in a company and can either affect or be affected by the project. The primary stakeholders are its investors, employees, customers, and suppliers. A stakeholder has a vested interest in a project and can either affect or be affected by a project operations and performance. Typical stakeholders are investors, employees, customers, suppliers, communities, governments, or trade associations. An entity's stakeholders can be both internal and external to the organization.

For this particular project, Stakeholders are the inhabitants of this union parishad, upazila parishad, Contractors, Suppliers, Engineers and Government of Bangladesh. In this project assistance from all stakeholders is required for successful completion of the project.

For this project, it will be implemented by the Local Government Engineering Department (LGED) under the Local Government Division (LGD). The overall work of the project will be carried out through the Project Management Office consisting of officers / employees appointed through regular setup (deputation / additional responsibility) and outsourcing of LGED under the leadership and responsibility of a full time Project Director. Technical staff including district / upazila level executives / upazila engineers of the project area will consult with the elected union and upazila Parished Chairman and members as well as Civil societies and they are also be involve in the implementation process implement the scheme as per design and specification. Additional Chief Engineer (Division) and Supervising Engineer (Region) of LGED will also coordinate project work through the respective Executive Engineer.

3.5 Demand Analysis

Current Demand

Most of Upazila/Union Roads of LGED were constructed during 1990-2010 with an objective to rapid development of rural infrastructure for economic growth. These roads were improved over existing earthen embankment and do not have adequate geometric standards. Designs and specifications were followed as per rural road standards. But in

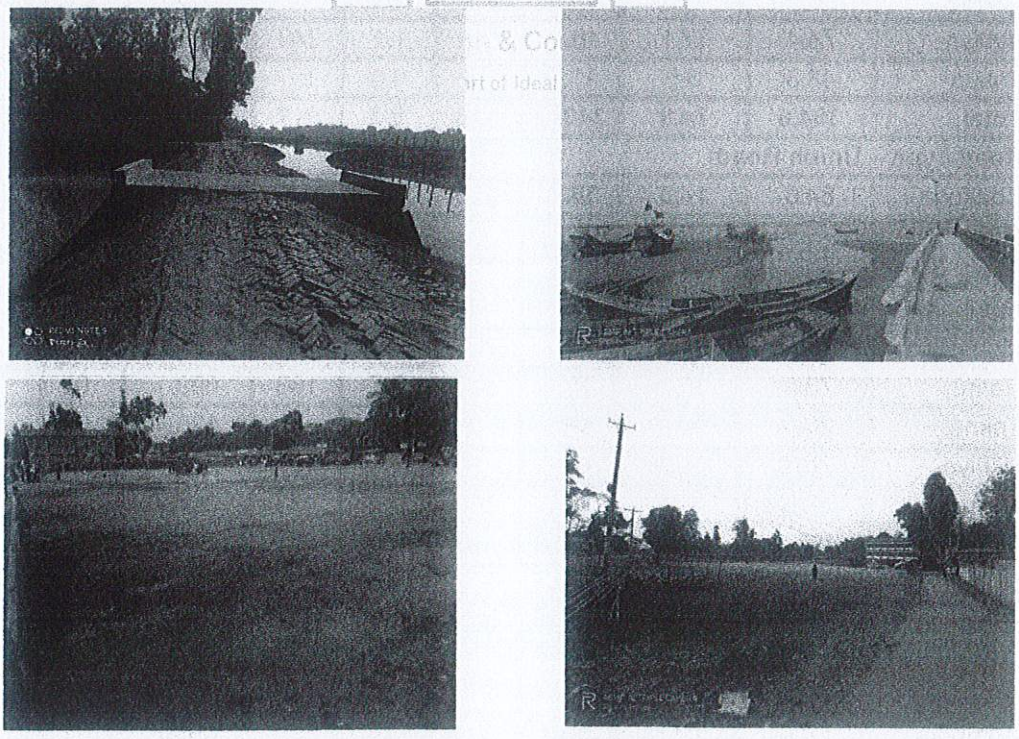
recent time there is a significant change of traffic pattern in rural road network. Traffic volume and number of heavier vehicles plying on rural roads increased dramatically, even more than the expectation estimated at the time of design. Overloaded vehicles plying RHD road network enter onto rural roads without any obstacles very frequently and cause severe damages to the rural roads of limited geometric designs, standards & specifications and increase in the cost of maintenance. Subsequently many road crashes happened because of damaged roads and limited paved area, soft shoulders & slopes, inadequate & insufficient road/drainage structures and protective measures, and lack of Road Safety Works.

There is a huge demand for development of roads, bridges /culverts, hat-bazars in 09 upazilas of Cox's Bazar District. 79.50% upazila roads, 71.40% union roads and 25.40% village roads of Cox's Bazar District have been developed. These districts have already developed 289.80 km of upazila roads out of 364.60 km, 344.70 km of union roads out of 483.10 km, 908.80 km of village roads out 3583.30 km. whose average progress is 34.80%. This rate is 33% in the whole country. Upazila wise road break up is given below.

Upazila	Total Length	Surface Type-Wise Break-Up (Km)				Total Developed		Existing Gaps	
		Earthen	BC	Brick	Rigid	Nos.	Span (m)	Nos.	Span (m)
Road Type – Upazila Road									
Chakoria	71.2	40.6	19.1	11	0.4	37	191.7	1	55
Cox's Bazar-S	46	3.7	36.9	4.9	0.5	123	371.4	2	180
Kutubdia	14.5	0	13.4	0	1.1	45	100.4	0	0
Moheskhali	31.3	0	29.3	1.4	0.5	123	926.9	0	0
Ramu	32.5	9.7	20	2.3	0.5	83	599.4	0	0
Teknaf	46.5	0.2	41.3	4.6	0.4	179	769.7	0	0
Ukhiya	74.4	17.1	48.5	7.8	1.1	240	1,388.40	6	11
Pekua	48.3	3.5	41.2	2.8	0.8	87	391.3	1	240.5
Total	**364.6**	**74.8**	**249.7**	**34.8**	**5.3**	**917**	**4,739.20**	**10**	**486.5**
Road Type – Union Road									
Chakoria	84.6	14.8	38.1	31.5	0.2	66	662.5	0	0
Cox's Bazar-S	106.4	25.4	51.7	23.7	5.6	217	849.9	12	424.5
Kutubdia	14.9	2.8	8.2	4	0	31	60.4	0	0
Moheskhali	59	27.8	21.4	8.2	1.6	92	680.5	12	57.1
Ramu	73.9	12.1	27.6	30.5	3.7	166	899.1	0	0
Teknaf	26.4	11.1	10.2	2	3.1	43	126.4	0	0
Ukhiya	30.3	9.7	12.6	8	0	109	242.7	10	26
Pekua	87.6	34.7	17.6	35.1	0.2	133	367.7	0	0
Total	**483.1**	**138.4**	**187.3**	**143**	**14.4**	**857**	**3,889.10**	**34**	**507.6**
Road Type – Village Road - A									
Chakoria	297.2	182.5	27.9	86.6	0.2	95	384.9	2	53
Cox's Bazar-S	164.1	111.3	18.2	34.6	0	88	219.9	30	126
Kutubdia	82.8	20.1	30.4	30.9	1.4	179	395.7	1	3
Moheskhali	64	31.8	5.2	22.4	4.6	43	128.9	5	15

Upazila	Total Length	Surface Type-Wise Break-Up (Km)				Total Developed		Existing Gaps	
		Earthen	BC	Brick	Rigid	Nos.	Span (m)	Nos.	Span (m)
Ramu	93	43.4	16.3	31.7	1.6	145	463.3	1	3.5
Teknaf	147.7	87	36.3	24.2	0.1	150	374	2	3.6
Ukhiya	239.1	133.6	27.8	77.2	0.4	467	1,374.30	138	975.9
Pekua	112.7	66.3	9.6	35.7	1.1	85	488.5	14	118
Total	**1,200.60**	**675.9**	**171.6**	**343.5**	**9.5**	**1,252**	**3,829.50**	**193**	**1,298.00**
Road Type – Village Road - B									
Chakoria	292.7	257.9	6.7	28	0.1	77	191.3	28	62.6
Cox's Bazar-S	677.8	636.7	8	33.1	0.1	100	295.1	308	995.5
Kutubdia	154.8	114.8	7.6	32.5	0	44	64.6	0	0
Moheskhali	158.6	116.2	1	38.9	2.5	53	175.1	34	179.6
Ramu	391.8	319.2	16.2	55.2	1.2	244	629.5	0	0
Teknaf	295.2	200.5	23.7	71	0	215	513.2	39	99
Ukhiya	170.5	145.4	5	20.2	0	190	548.9	70	446.7
Pekua	240.9	207.5	1.3	32.1	0	106	367.5	97	285.5
Total	**2,382.30**	**1,998.20**	**69.3**	**311**	**3.9**	**1,029**	**2,785.20**	**576**	**2,068.90**
District Total	**4,430.6**	**2,887.3**	**678.0**	**832.3**	**33.1**	**4,055**	**15,243.0**	**813**	**4,361.0**

Existing picture of Cox's Bazar District is shown below -



Picture – Current Picture of Some Roads, Jetty and Playgrounds of Cox's Bazar District

Future Demand

In demand planning, after gathering information about various aspects of the market and demand from primary and secondary sources, an attempt may be made to estimate future demand. A wide range of forecasting methods are available to the market analyst. These may be divided into three categories: qualitative methods, time series projection methods, and casual methods. When estimating of future conditions are made on a systematic basis, the process is referred to as forecasting, and the Figure or statement obtained is known as forecast. Forecasting reduce the areas of uncertainty in management deciding making respect to costs, profit, sales, production, pricing and investment etc.

The 06 Models Commonly Used In Forecasting Algorithms

Clustering analysis: This technique is a way to help understand and analyze data by putting it into smaller manageable subgroups to highlight attributes and manage or make better predictions. The resulting classification model can be used both to categorize new records and to do predictive modeling against the data for the designated subgroups.

Descriptive analysis: This helps tell you what has happened in the past and attempts to analyze and characterize it, with an eye toward predicting similar events in the future. Describing past behavior and then applying predictive models to the resulting data helps to frame opportunities for operational improvement and identify new business opportunities.

Outlier analysis: Detecting the outlying values in a dataset to identify noise and improve prediction and anomalies. A database may contain data objects that do not comply with the general behavior or model of the data and may be isolated to better understand or determine impacts or calculated responses.

Factor analysis: This helps you understand relationships and dependencies between different data variables to predict how they'll affect one another going forward. The information enables you to predict future developments related to the dependent variable based on what happens with related factors.

Time series analysis: looks at a collection of values observed sequentially over time and is used to perform time-based predictions. Assuming that past data patterns such as level, trend, and seasonality repeat this can create models using only of the data being forecasted to predict future patterns.

Regression analysis: This helps understand relationships and help predict continuous variables based on other variables in the dataset. This technique is designed to identify meaningful relationships among data variables, specifically looking at the connections between a dependent variable and other independent factors that may or may not affect it.

In description, if the project is adopted, then the scenario of Cox's Bazar District under Chattogram Division will be changed. Under this project road improvement as well as construction and rehabilitation/re-construction of bridges/culverts work will be done. So, rural road network of the district will be achieved. People can be able to walk and travel through roads. People can go out with their family for visit. They can exercise in the morning and in the afternoon. It will improve their physical and mental health. Maternal and infant mortality will be reduced if travel is facilitated. The rate of employment of women in the project area will increase during construction. Wage inequality for male and female workers will be eliminated. Culvert/bridge structure will be improved under this proposed project. It will reduce water logging and nuisance created by mosquito will reduce.

Constrains to meet the demand

In this particular project will be very useful for Cox's Bazar District under Chattogram Division. There is no constrained to implement the project according to Government regulation. Again the road and bridge/culvert is developed by keeping in mind of technological development. Main constrain for this project may be approval of the project, land allocation etc.

3.5 SWOT Analysis

SWOT analysis is a strategic planning technique used to help a project identify strengths, weaknesses, opportunities, and threats related to business competition or project planning. SWOT analysis identifies core strengths, weaknesses, opportunities, and threats leads to fact-based analysis, fresh perspectives, and new ideas. SWOT analysis works best when diverse groups or voices within an organization are free to provide realistic data points rather than prescribed messaging. SWOT assumes that strengths and weaknesses are frequently internal, while opportunities and threats are more commonly external. The name is an acronym for the four parameters the technique examines

Strengths: Characteristics of the project that give it an advantage over others. For this project for Cox's Bazar District under Chattogram Division, strengths are extremely experienced manpower, engineering unit, coordinating with local representative and his people etc. People of this district are extraordinarily cordial for development works.

Weaknesses: Characteristics that place the project at a disadvantage relative to others. For Cox's Bazar District under Chattogram Division, there is no weakness like this. But sometime bad weather of this area can be weakness for the project.

Opportunities: Elements in the environment that the project could exploit to its advantage. If the project can be implemented, this district will be role model and this place will be a tourist hub. Revenue will generate. Inhabitants of this district will be very happy both mentally and physically. So, this district will be an attraction to live.

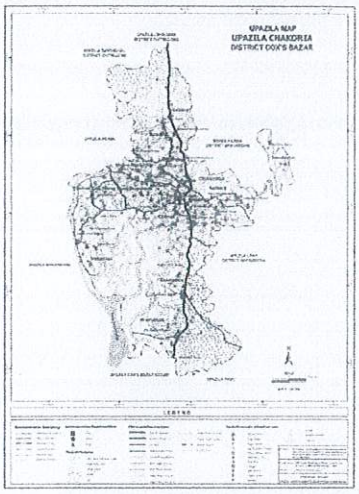
Threats: Elements in the environment that could cause trouble for the project. If there is any natural hazards that can hamper the work of the project. Political unrest, unsmooth fund flow and manmade calamity can be thread for this project.

Section 4: Technical/Technological & Engineering Analysis

4.1 Location

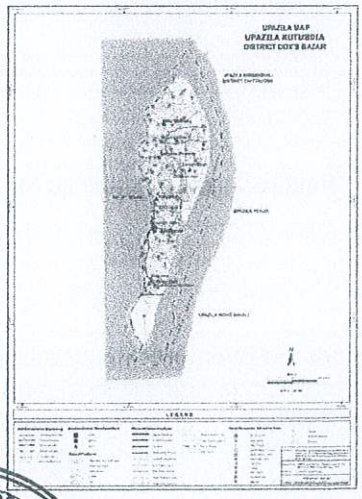
The Project Location Map comprises 09 (Nine) administrative upazila of Cox's Bazar District, is located in the southeast part of Bangladesh. It covers Chattogram division having a territorial extension of 2,491.86 square km area having 09 Upazilas, 04 municipalities and 71 union parishads.

The Project area is bounded by Chattogram district on the north, Bandarban district, and Myanmar on the east, Bay of Bengal on the west and South. The project area is bounded by many river and Bey of Bangal Sea. Main rivers of the district are Matamuhuri, Bakkhali, Rezu, Kohelia and Naf. Most of the people in this district depend on fishing and collecting seafood and sea products and agriculture for their livelihood.

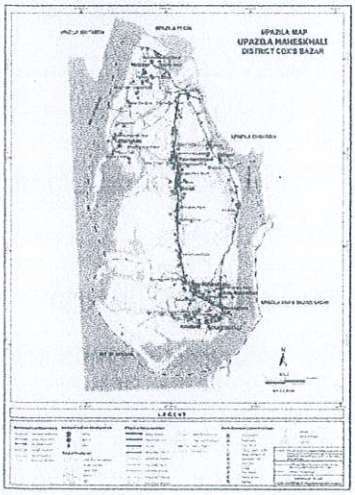


Picture – Chakoria Upazila Map

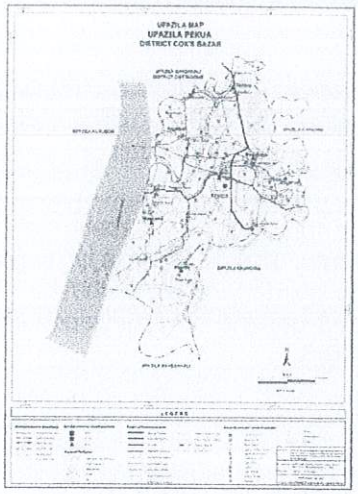
Picture – C.Bazar Sadar Upazila Map



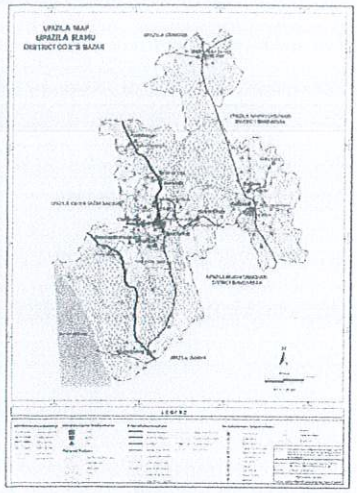
Picture – Kutubdia Upazila Map



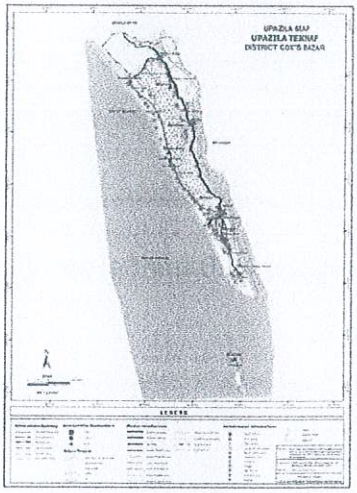
Picture – Moheskhali Upazila Map



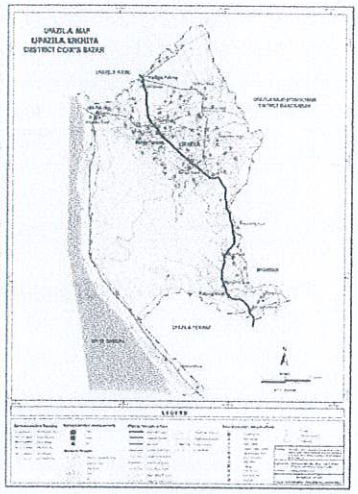
Picture – Pekua Upazila Map



Picture – Ramu Upazila Map



Picture – Teknaf Upazila Map



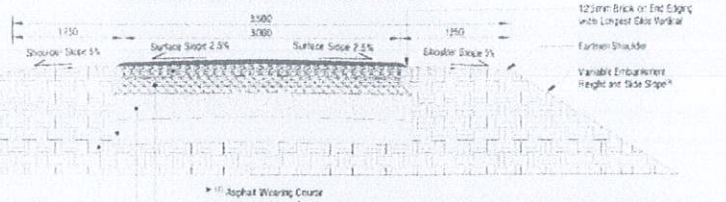
Picture – Ukhiya Upazila Map

4.2 Technical design

The roads selected under the project will be developed as per the geometric map and design approved by the Planning Commission. Normally all these roads will be developed by bituminous carpeting and the width of paved part of the road will be 3.0-3.70 m. Construction of bridges / culverts will follow the geometric map approved by the Planning Commission. During design, climate change impact, disaster and climate change risks related information is integrated in technical design in order to address the impact of hazards on the project.

PAVEMENT DESIGN TEMPLATE FOR CVD 0-50

Type-8



- [1] Asphalt Wearing Course
- [2] Aggregate Base Course; for Brick Aggregate, Los Angeles Abrasion Value (LAA) max 40% or Ten Percent Fines Value (TFV) min. 100 kN, for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%; Compacted in Two layers, each layer Soaked CBR min. 80%, Compacted to 100% of MDD Modified Proctor
- [3] Sub-Base; for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min 100 kN, for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%; Compacted in Two/Three layers, each layer Soaked CBR min. 30%, Compacted to 98% of MDD Modified Proctor
- [4] Compacted Sand Improved Subgrade[6]; Sand Fill min. 0.5, PI value <6%, Compacted in Two layers, each layer Soaked CBR min. 8%, Compacted to min. 98% of MDD Modified Proctor
- [5] Subgrade Compaction min. 95% of MDD Modified Proctor in Two Layers, Soaked CBR min. 2%, PI value 8%~20%
- Original Soil cut into designed shape, or fill with normal soil, PI value 8%~20%, Compaction min. 95% of MDD Modified Proctor, Soaked CBR min. 2% to achieve designed cross-section of side embankment

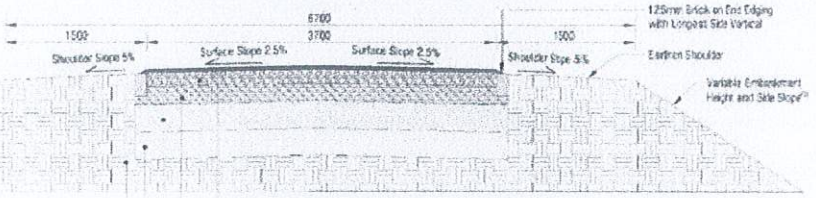
NOTES:

(a) All dimensions are in millimeter unless otherwise specified;
(b) Side Slope Protection method will vary for different conditions;
(c) The local sand can be used as ISG subject to approval of LGED if the sand satisfies the following two conditions:
(i) Passing # 200 sieve (Not more than 15%) and
(ii) CBR Value: 8% or above.

Subgrade Soaked CBR (%)	Wearing Course (mm) [1]	Base Course (mm) [2]	Sub-base Course (mm) [3]	Improved subgrade (mm) [4]	Subgrade (mm) [5]
2	40	150	250	300	300
3	40	150	225	300	300
4	40	150	175	250	300
5	40	150	175	225	300
6	40	150	175	200	300
≥7	40	150	150	-	300

PAVEMENT DESIGN TEMPLATE FOR CVD 51-100

Type-7



- [1] Asphalt Wearing Course
- [2] Aggregate Base Course; for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN, for Stone Aggregate, Los Angeles Abrasion Value (LAA) max 35% or Aggregate Crushing Value (ACV) max. 30%; Compacted in Two layers, each layer Soaked CBR min. 80%, Compacted to 100% of MDD Modified Proctor
- [3] Sub-Base; for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN, for Stone Aggregate, Los Angeles Abrasion Value (LAA) max 35% or Aggregate Crushing Value (ACV) max. 30%; Compacted in Two/Three layers, each layer Soaked CBR min. 30%, Compacted to 98% of MDD Modified Proctor
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Subgrade Soaked CBR (%)	Wearing Course (mm) [1]	Base Course (mm) [2]	Sub-base Course (mm) [3]	Improved subgrade (mm) [4]	Subgrade (mm) [5]
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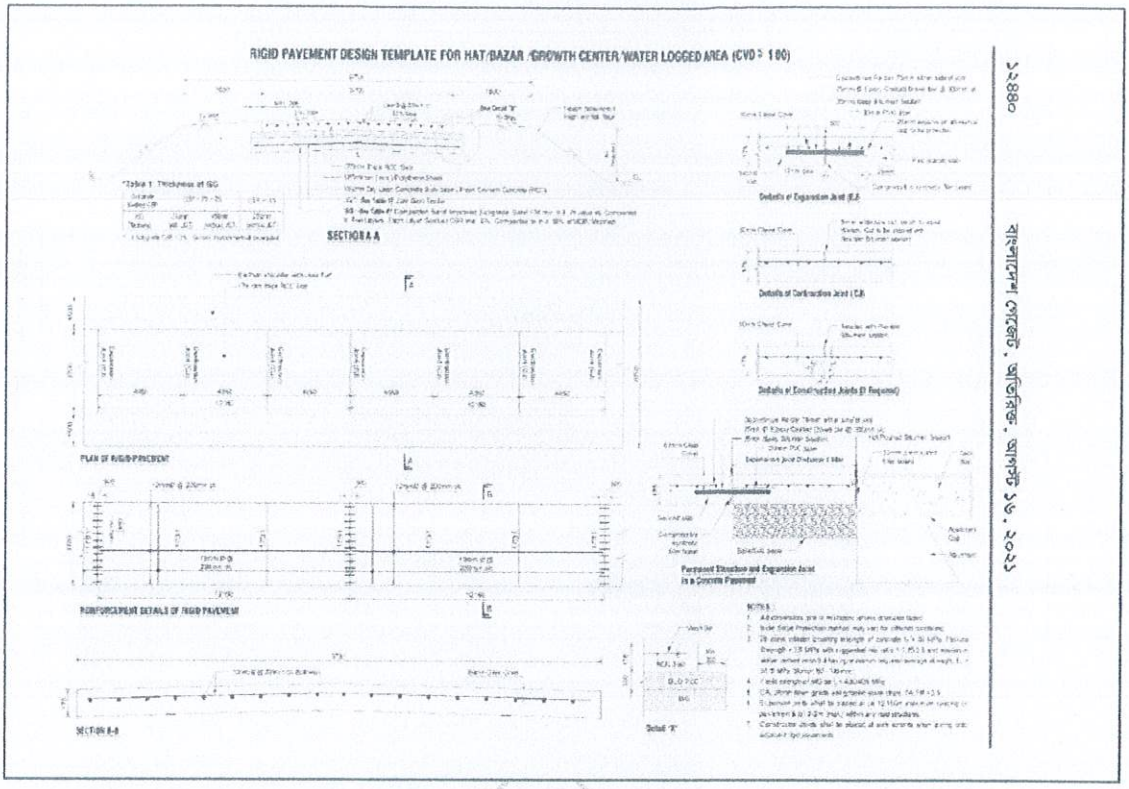
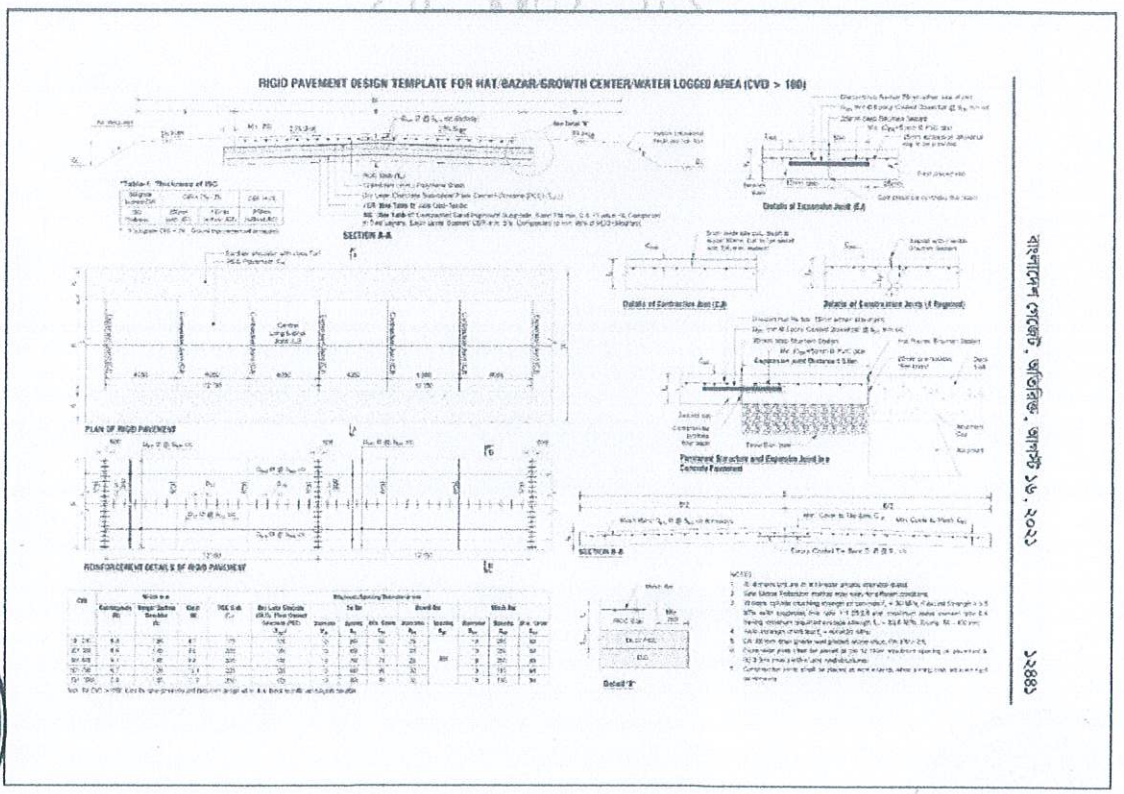
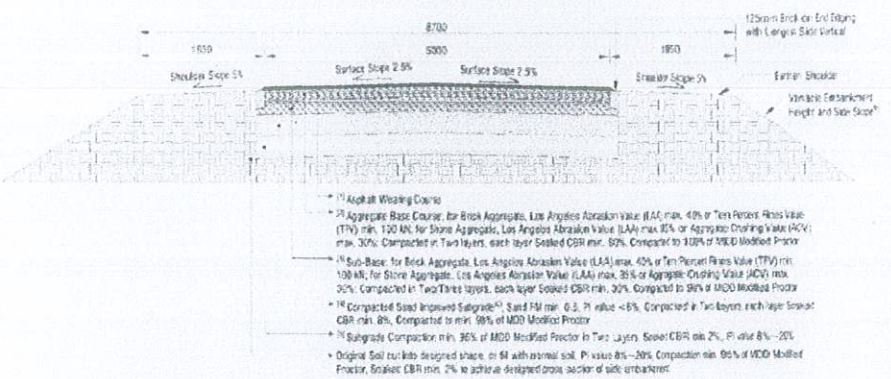
3	40	150	250	300	300
4	40	150	200	250	300
5	40	150	200	225	300
6	40	150	200	200	300
≥7	40	150	150	-	300





PAVEMENT DESIGN TEMPLATE FOR CVD 101-200

Type-6



- [1] Asphalt Wearing Course
- [2] Aggregate Base Course: for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN; for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%. Compacted in Two layers, each layer Soaked CBR min. 80%. Compacted to 100% of MDD Modified Proctor
- [3] Sub-Base: for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN; for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%. Compacted in Two/Three layers, each layer Soaked CBR min. 30%. Compacted to 98% of MDD Modified Proctor
- [4] Compacted Sand Improved Subgrade[5]: Sand FM min. 0.5, PI value <6%. Compacted in Two layers, each layer Soaked CBR min. 8%. Compacted to min. 98% of MDD Modified Proctor
- [5] Subgrade Compaction min. 95% of MDD Modified Proctor in Two Layers. Soaked CBR min 2%., PI value 8% ~20%
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NOTES:

(a) All dimensions are in millimeter unless otherwise specified.

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3	40	150	275	300	300
4	40	150	225	250	300
5	40	150	225	225	300
6	40	150	225	200	300
>7	40	150	175	-	300

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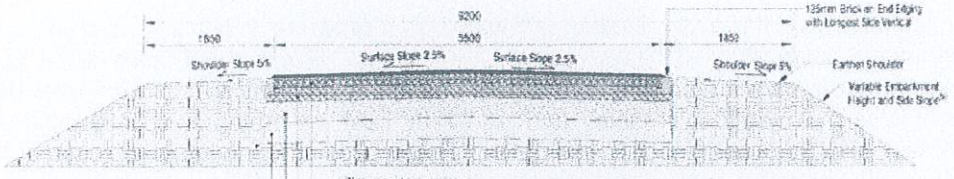
বাস্তবায়ন গেজেট, অতিরিক্ত, জানুয়ারি ১৬, ২০২১

PAVEMENT DESIGN TEMPLATE FOR CVD 201-300

Type-5



- [1] Asphalt Wearing Course
- [2] Aggregate Base Course: for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN; for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%. Compacted in Two layers, each layer Soaked CBR min. 80%. Compacted to 100% of MDD Modified Proctor
- [3] Sub-Base: for Brick Aggregate, Los Angeles Abrasion Value (LAA) max. 40% or Ten Percent Fines Value (TFV) min. 100 kN; for Stone Aggregate, Los Angeles Abrasion Value (LAA) max. 35% or Aggregate Crushing Value (ACV) max. 30%. Compacted in Two/Three layers, each layer Soaked CBR min. 30%. Compacted to 98% of MDD Modified Proctor
- [4] Compacted Sand Improved Subgrade[5]: Sand FM min. 0.5, PI value <6%. Compacted in Two layers, each layer Soaked CBR min. 8%. Compacted to min. 98% of MDD Modified Proctor
- [5] Subgrade Compaction min. 95% of MDD Modified Proctor in Two layers, Soaked CBR min. 2%. PI value 8% ~20%
- Original Soil cut into designed shape, or fill with normal soil, PI value 8% ~20%, Compaction min. 95% of MDD Modified Proctor, Soaked CBR min. 2% to achieve designed cross-section of side embankment

NOTES:

(a) All dimensions are in millimeter unless otherwise specified.

(b) Side Slope Protection method will vary for different conditions;

(c) The local sand can be used as ISG subject to approval of LGED if the sand satisfies the following two conditions:

(i) Passing # 200 sieve (Not more than 15%) and

(ii) CBR Value: 8% or above

Subgrade Soaked CBR (%)	Wearing Course (mm) [1]	Base Course (mm) [2]	Sub-base Course (mm) [3]	Improved subgrade (mm) [4]	Subgrade (mm) [5]
2	40	175	300	300	300
3	40	175	275	300	300
4	40	150	250	250	300
5	40	150	250	225	300
6	40	150	250	200	300
>7	40	150	200	-	300

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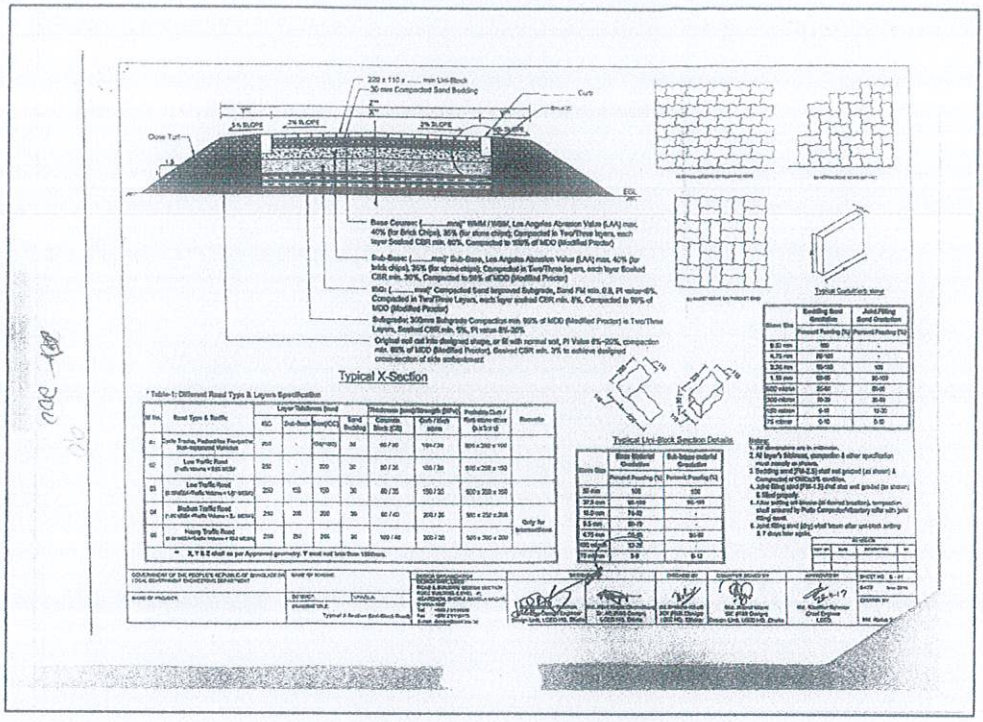
বাস্তবায়ন গেজেট, অতিরিক্ত, জানুয়ারি ১৬, ২০২১



Picture – Road geometric map and design

4.3 Output Plan

After completion of the project, a connective road network will be found. Utilization rate will be 100%. During visit to the Cox's Bazar District every people answered that they will use this road and bridge/culvert for regular basis.

4.4 Costs Estimate

A cost estimate is the approximation of the cost of a program, project, or operation. The cost estimate is the product of the cost estimating process. The cost estimate has a single total value and may have identifiable component values. A problem with a cost overrun can be avoided with a credible, reliable, and accurate cost estimate. A cost estimator is the professional who prepares cost estimates. There are different types of cost estimators, whose title may be preceded by a modifier, such as building estimator, or electrical estimator, or chief estimator. Other professionals such as quantity surveyors and cost engineers may also prepare cost estimates or contribute to cost estimates. For the proposed project this principal was taken under consideration while cost estimate was done. In the following table cost estimate is presented.

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: BC Length-1000 m & Width- 5.5m, Typical Estimate for Improvement of 1.00 Km Road by BC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
Road Pavement Works						
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: BC Length-1000 m & Width- 5.5m, Typical Estimate for Improvement of 1.00 Km Road by BC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1500.00	430,275.00
3	3.01.4.2	BC&SGC(450mm): Earth work in box cutting	sqm	110.45	5500.00	607,475.00
4	3.02.1.1	Sand (FM 0.50) filling	cum	1211.75	1375.00	1,666,156.25
5	3.03.3.4	SBBC(FM-0.8):	cum	4071.19	825.00	3,358,731.75
6	3.04.3.2	EE(125mm):	m	218.31	2000.00	436,620.00
7	3.05.7.1	WBMBC:	cum	5923.69	825.00	4,887,044.25
8	3.06.1.1	PCHD@1.2: Providing Prime coat @1.2 liter	sqm	117.07	5500.00	643,885.00
9	3.06.5.1	40mmBC (BG-60/70): Providing 40mm	sqm	879.88	5500.00	4,839,340.00
10	3.06.3.1.01	7mmSC: Providing 7mm thick	sqm	165.16	5500.00	908,380.00
Sub Total A						17,793,037.25
Road Protective Work						
11	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	200	1,149,536.00
Sub Total B						1,149,536.00
Road Safety Work						
12	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
13	3.12.01.2	Road Name Plate	each	6838.38	2	13,676.76
14	3.12.04.1	Precautionary Sign	each	5988.78	2	11,977.56
Sub Total C						32,825.48
Total =						18,975,398.73

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.00m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
2		3	4	5	6	7
Roads Pavement Works						

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.00m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1000.00	286,850.00
3	3.01.3.2	BC&SGC(300mm): Earth work in box cutting	sqm	79.42	3000.00	238,260.00
4	3.02.1.1	Sand (FM 0.50) filling	cum	1211.75	450.00	545,287.50
5	3.11.01	PCCBC-10: Plain cement	cum	8708.47	37.50	326,567.63
6	3.11.02.2	BW(1:3): Brick works	cum	9054.59	300.00	2,716,377.00
7	3.07.3.2	RCC-25SCBP(RW): 1:1.5:3	cum	17031.51	525.00	8,941,542.75
8	4.11.01.02	Grade 400 (RB 400/ 400W): MS BAR	kg	105.01	21000.00	2,205,210.00
Sub Total A						15,275,224.88
Road Protective Work						
9	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	50	287,384.00
Sub Total B						287,384.00
Road Safety Work						
10	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
11	3.12.01.2	Road Name Plate	each	6838.38	1	6,838.38
12	3.12.04.1	Precautionary Sign	each	5988.78	1	5,988.78
Sub Total C						19,998.32
Total =						15,582,607.20

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.00m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
Road Pavement Works						

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.00m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1500.00	430,275.00
3	3.01.4.2	BC&SGC(450mm): Earth work in box cutting	sqm	110.45	3700.00	408,665.00
4	3.02.1.1	Sand (FM 0.50) filling	cum	1211.75	925.00	1,120,868.75
5	3.03.3.4	SBBC(FM-0.8):	cum	4071.19	555.00	2,259,510.45
6	3.04.3.2	EE(125mm):	m	218.31	2000.00	436,620.00
7	3.05.7.1	WBMBC:	cum	5923.69	555.00	3,287,647.95
8	3.06.1.1	PCHD@1.2: Providing Prime coat @1.2 liter	sqm	117.07	3700.00	433,159.00
9	3.06.4.1.01	25mmBC: Providing 25mm	sqm	542.66	3700.00	2,007,842.00
10	3.06.3.1.01	7mmSC: Providing 7mm thick	sqm	165.16	3700.00	611,092.00
Sub Total A						11,010,810.15
Road Protective Work						
11	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	340	1,954,211.20
Sub Total B						1,954,211.20
Road Safety Work						
12	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
13	3.12.01.2	Road Name Plate	each	6838.38	2	13,676.76
14	3.12.04.1	Precautionary Sign	each	5988.78	2	11,977.56
Sub Total C						32,825.48
Total =						12,997,846.83

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: BC Length-1000m & Width- 3.00m, Typical Estimate for Improvement of 1.00Km Road by BC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK

1	2	3	4	5	6	7
Road Pavement Works						
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1500.00	430,275.00
3	3.01.4.2	BC&SGC(450mm): Earth work in box cutting	sqm	110.45	3000.00	331,350.00
4	3.02.1.1	Sand (FM 0.50) filling	cum	1211.75	750.00	908,812.50
5	3.03.3.4	SBBC(FM-0.8):	cum	4071.19	450.00	1,832,035.50
6	3.04.3.2	EE(125mm):	m	218.31	2000.00	436,620.00
7	3.05.7.1	WBMBC:	cum	5923.69	450.00	2,665,660.50
8	3.06.1.1	PCHD@1.2: Providing Prime coat @1.2 liter	sqm	117.07	3000.00	351,210.00
9	3.06.4.1.01	25mmBC: Providing 25mm	sqm	542.66	3000.00	1,627,980.00
10	3.06.3.1.01	7mmSC: Providing 7mm thick	sqm	165.16	3000.00	495,480.00
					Sub Total A	9,094,553.50
Road Protective Work						
11	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	240	1,379,443.20
					Sub Total B	1,379,443.20
Road Safety Work						
12	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
13	3.12.01.2	Road Name Plate	each	6838.38	2	13,676.76
14	3.12.04.1	Precautionary Sign	each	5988.78	2	11,977.56
					Sub Total C	32,825.48
					Total =	10,506,822.18

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
Road Pavement Works						
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1500.00	430,275.00
3	3.01.4.2	BC&SGC(450mm): Earth work in box cutting	sqm	110.45	3700.00	408,665.00

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: RCC Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by RCC						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
4	3.02.1.1	Sand (FM 0.50) filling	cum	1211.75	740.00	896,695.00
5	3.11.01	PCCBC-10: Plain cement	cum	8708.47	37.50	326,567.63
6	3.11.02.2	BW(1:3): Brick works	cum	9054.59	300.00	2,716,377.00
7	3.07.3.2	RCC-25SCBP(RW): 1:1.5:3	cum	17031.51	740.00	12,603,317.40
8	4.11.01.02	Grade 400 (RB 400/ 400W): MS BAR	kg	105.01	2700.00	283,527.00
					Sub Total A	17,680,554.03
Road Protective Work						
11	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	300	1,724,304.00
					Sub Total B	1,724,304.00
Road Safety Work						
12	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
13	3.12.01.2	Road Name Plate	each	6838.38	1	6,838.38
14	3.12.04.1	Precautionary Sign	each	5988.78	1	5,988.78
		Sub Total C				19,998.32
		Total =				19,424,856.35

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: Uni-Block Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by Uni-Block						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
Road Pavement Works						
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1000.00	286,850.00
	3.01.3.2	BC&SGC(300mm): Earth work in box cutting	sqm	79.42	3700.00	293,854.00
	2.02.1.2	Sand (FM 0.80) filling	cum	1359.21	555.00	754,361.55

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: Uni-Block Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by Uni-Block						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
5	3.07.2.1	PCCBC-17: Plain cement	cum	10772.66	370.00	3,985,884.20
6	3.09.15.07	Uni-Block Paver	sqm	1478.48	3700.00	5,470,376.00
7	3.09.6.1	Providing PCC Block on End Edging	m	349.41	2000.00	698,820.00
					Sub Total A	11,505,275.75
Road Protective Work						
8	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	90	517,291.20
					Sub Total B	517,291.20
Road Safety Work						
9	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
10	3.12.01.2	Road Name Plate	each	6838.38	1	6,838.38
11	3.12.04.1	Precautionary Sign	each	5988.78	1	5,988.78
					Sub Total C	19,998.32
					Total =	12,042,565.27

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: Uni-Block Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by Uni-Block						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
Road Pavement Works						
1	2.01.1	C&G: Clearing and grubbing	sqm	15.13	1000.00	15,130.00
2	2.02.2.01	EFW(AE): Earth filling work	cum	286.85	1000.00	286,850.00
3	3.01.3.2	BC&SGC(300mm): Earth work in box cutting	sqm	79.42	3000.00	238,260.00
4	3.02.1.2	Sand (FM 0.80) filling	cum	1359.21	450.00	611,644.50
5	3.07.2.1	PCCBC-17: Plain cement	cum	10772.66	300.00	3,231,798.00
6	3.09.15.07	Uni-Block Paver:	sqm	1478.48	3000.00	4,435,440.00

Local Government Engineering Department						
Unit Rate Analysis for Cox's Bazar District Rural Infrastructure Development Project						
Sample Unit Cost Calculation: Uni-Block Length-1000m & Width- 3.7m, Typical Estimate for Improvement of 1.00Km Road by Uni-Block						
Financial Year : 2019-2020 as per LGED Schedule						
Sl. No.	Item Code	B.D.I	Unit	Rate	Quantity	Total TK
1	2	3	4	5	6	7
7	3.09.6.1	Providing PCC Block on End Edging	m	349.41	2000.00	698,820.00
					Sub Total A	9,517,942.50
Road Protective Work						
8	3.11.14	RCC(P+BW)-PW: palisading	m	5747.68	50	287,384.00
					Sub Total B	287,384.00
Road Safety Work						
9	3.12.01.1	Kilometer Post	each	3585.58	2	7,171.16
10	3.12.01.2	Road Name Plate	each	6838.38	1	6,838.38
11	3.12.04.1	Precautionary Sign	each	5988.78	1	5,988.78
					Sub Total C	19,998.32
					Total =	9,825,324.82

4.5 Implementation Timeline

Proposed Project Implementation time will be February 2022 to June 2025.

Section 5: Environmental Sustainability, Climate Resilience and Disaster Risk Analysis

5.1 Environmental, Climate Change and Disaster Risk Analysis

While the development of rural infrastructure is very crucial for economic uplift of agrarian Bangladesh, enough attention should also be paid for the proper planning of rural infrastructure development considering their environmental, climate change, disaster risk and social consequences. Environmental, climate change, disaster risk assessment is an essential requirement of infrastructure development planning in order to ensure that appropriate environmental considerations are properly integrated into and monitored in each stage of the Project cycle. The physical infrastructure components of the infrastructure development Project involve a larger number of small widely dispersed rehabilitation and improvement works, which shall produce impacts on the local and sub-regional environment.

The provision of improved rural infrastructure is considered a high priority by the Government of Bangladesh. This is both from the point of view that the majority of the population of the country lives in rural areas and also as agriculture is still a significant sector of the economy. The provision of improved rural infrastructure is also seen as a central tool for poverty reduction, allowing rural people to directly access rapidly developing urban markets for agricultural products that they have grown.

The environmental analysis includes both natural and human/social environments. Of specific concern is the nature of human use of resources and how this changes as a result of the proposed Project interventions. Analysis aims to predict induced change as a result of the Project, so that any negative impacts can be avoided or minimized and positive impacts can be enhanced.

Environmental Policy, Legal and Administrative Framework

It is the present policy of the Government of Bangladesh to undertake environmental assessment for each development Project and prepare mitigation, monitoring and management plans. The government formulated its National Environment Policy in 1992 whose objectives include prevention of environmental degradation, and maintenance of country's ecological balance.

The umbrella institution responsible for overseeing environmental management in Bangladesh is the Ministry of Environment and Forest (MOEF), with its Department of Environment (DOE) serving as the planning, implementation and enforcement agency.

A number of environmental problems which inter-alia include natural disasters such as floods, droughts, cyclones and major problems related to environmental pollution and degradation are prevalent in this country. Since various socio-economic issues such as poverty, population, illiteracy, inadequate health care etc. have emerged as the serious impediments to the protection of environment, it is necessary that these problems are adequately addressed simultaneously along with the issues concerning to the improvement of environment in an integrated manner. Therefore, a well-defined national policy is critical to protect the environment and to mitigate environmental problems,

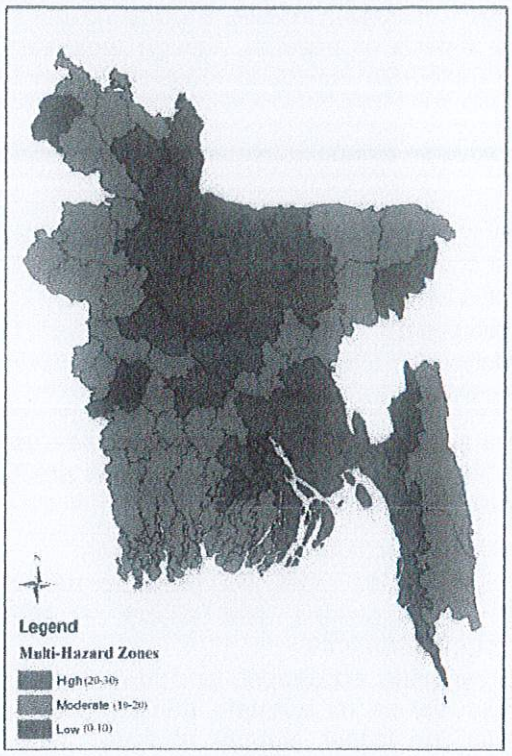
Environmental policies for the protection of environment are codified through a variety of laws. However, a comprehensive Environment Protection Act has been passed by the national parliament, and the DOE is engaged in the formulation of rules and regulations for its enforcement.

A National Conservation Strategy was also prepared with assistance from the International Union of Nature and Natural Resources (IUCN). The policy and strategy are reflected in the National Environmental Management Action Plan (NEMAP), completed in November 1995. The NEMAP is a document aimed at serving as the basis of programs and interventions related to natural resource and environmental management.

Identification of Major Environmental Parameters

In accordance with the guidelines, a scooping process was used in order to identify the significant environmental parameters, which were considered relevant to the Project. Besides, the information from the literature from the similar projects and field survey including the discussions with concerned officials and the local population were also made. The major environmental parameters are mentioned below. Through hazard map, it is very easy to identify the environmental, social hazard. This multi-hazard zoning map helps to find out the formulation of development strategies in multi-hazard active zones, land use management, revision and enforcement of appropriate codes and formulation of plans for mitigating measures against hazard risks affecting areas.

Hazard Map of Bangladesh



The field survey was carried out for both scenarios of "with Project" and "without Project". In course of the environmental assessment, the current environmental conditions were treated as the reference level and the potential impacts from the Project actions were evaluated as the departures from it. Both short-term impacts (i.e. during the construction phase) and long-term impacts (i.e. probable permanent changes in the environment due to project interventions) were considered.

Major Environmental Parameters

Major Components	Environmental Parameters
Ecological	• Fisheries Wetland Tree plantation Forest
Physico-Chemical	• Soil erosion & siltation Regional hydrology/flooding Drainage congestion/water-logging • Water quality/Pollution Air pollution

Major Components	Environmental Parameters
Human Interest	• Loss of agriculture land loss Navigation/Boat communication • Employment opportunities Access of goods to markets Traffic • Cultural features Landscape / aesthetics Market improvement

Assessment of Positive and Negative Impacts

Issues of Short-term Impact

Even though the road rehabilitation works do not involve construction of new infrastructure, they normally produce construction related impacts on the immediate physical and social environment. These impacts or hazards, though temporary or short term, need to be accounted for, and appropriate mitigation measures need to be identified at the Project preparation stage.

Potential short-term adverse impacts during the construction phase are

- Soil erosion;
- Temporary interruption of natural drainage, and local flooding;
- Pollution from construction materials, equipment and dust;
- Increased traffic hazards;
- Traffic disruption; and
- Work site safety
- Cultural problems.

These issues will be addressed by LGED field staff, as part of their on-site supervisory responsibilities. The short-term environmental problems are not expected to be serious and can be mitigated by the following measures:

- Earthworks shall be restricted to the dry season;
- Temporary drain outlets shall be provided where necessary to avoid water accumulations or congestion, and effects on adjacent farm land, during the construction of embankments;
- Construction materials, equipment, and fuels and oils should not be stored near sensitive areas such as, for example, drinking water intakes. Contractors should be responsible for the proper storage of these items, for adopting precautionary measures against accidental spillage, and for safe disposal of waste materials and lubricants;
- LGED supervisory staff and contractors shall be trained in sound environmental practices and environmental clauses shall be incorporated into contract documents.

Long-term Impact Issues

Both the positive and negative impacts were expressed in qualitative terms through the use of a non-numeric rating scale of High (H), Moderate (M), Low (L) and None (N). The impact assessment was done through a rapid appraisal investigation during the field survey of sample Project sites. The Check list of the Environmental Parameters are shown in Table and the results are summarized below.

Environmental Components	Positive	Negative
Fisheries	M	N
Wetland	L	N

Environmental Components	Positive	Negative
Tree plantation	H	L
Forest	L	N

Ecological Component

Impact assessment of the ecological component is shown below:

Fisheries

Since the Project does not involve the construction of new roads, the potential for any adverse impact of fish migration and fish breeding is nil. Moreover, rehabilitation of bridges and culverts on Upazila roads including provision of additional drainage capacity will ensure better fish passage and migration opportunities in the flood plain.

Wetland

The Project area does not have any large, well-defined wetland areas. Seasonally inundated parts of the flood plain will not be affected adversely since no new road alignments will be constructed which would impede water movement.

Tree plantation

Road improvements involving road-widening will necessarily require removal of some existing trees. However, the practice established by LGED of planting and maintaining trees on the improved embankments more than compensates for this and enhances the environment. It will also help in preventing soil erosion.

Forest

The Project area does not have any ecologically sensitive forest zone. However, the road improvements in the Project area will benefit the forestry sector through LGED's cooperation in the social forestry schemes.

Physico-Chemical Component

Impact assessment of the physio-chemical component is shown below:

Environmental Components	Positive	Negative
Soil erosion & Siltation	H	L
Regional hydrology/flooding	M	L
Drainage congestion/Water-logging	L	L
Water quality/pollution	N	L
Air pollution	M	L

Soil erosion and Siltation

Soil erosion is one of the most common environmental impacts of the road projects, unless protective measures are undertaken. In the Project area, measures against soil erosion should be under taken considering the nature of the soil in specific locations. A comparison between improved and unimproved road sections indicates positive impacts from road

construction in respect of soil erosion and stability.

Regional hydrology

Roads can contribute to changes in the flow and volume of surface water affecting regional hydrology, Field survey, however, confirmed that the existing Upazila roads do not impede local and regional drainage.

Drainage congestion

Although the high embankments might cause temporary flooding, the potential for increased flooding is nil. However, it is necessary to emphasize that provision should be given for adequate cross-drainage structures, and discussion should be made with the local people to define the requirement of drainage in the area.

Water quality

Water quality on roadsides may be affected during the construction phase. However, field inspection of improved roads indicated no evidence of increased turbidity or pollution of water on either side of the roads. The impact of air pollution must be weighed against the existing situation on those roads.

The bitumen surface of the improved roads will necessarily generate more traffic of motorized vehicles and cause certain amount of air pollution from exhaust emissions. But it will also produce positive impact of lesser dust than the present unpaved earthen roads.

Human Component

Impact assessment of the human component is shown below:

Environmental Components	Positive	Negative
Loss of Agricultural land	L	M
Navigation/boat communication	L	N
Employment opportunities	H	N
Access of goods to markets	H	N
Traffic	H	L
Cultural features	H	N
Landscape/aesthetics	H	N
Market improvement	H	N

Loss of Agricultural land

In the project area, agriculture is the major use of land with a high cropping intensity. Road widening will involve elimination of farmland along the right of way. Hence, agricultural land loss in an infrastructure development project is a significant negative effect. Borrow-pits, however, may be considered as temporary land loss-which could be restored to their former use or converted to fishponds.

The analysis of the road upgrading works required shows that most embankments will need road widening to achieve the full design standard cross-section. This will involve loss of narrow strips of land on either side of the existing embankment. The losses to individual farmers will be small, a marginal amount of their total holding because only narrow strip of lands are required.

Navigation/boat communication:

Field investigations did not reveal any conflict between the present route alignment and navigational facilities; however, some bridges and culverts, which are currently damaged, will provide better boat communication facilities after rehabilitation.

Employment opportunities

The proposed project is expected to generate significant employment opportunities for the local people during the project construction stage. Besides, improved roads will increase accessibility of the rural areas, and thus have a cascade effect of encouraging commercial activities in the connecting growth centers, and providing for long-term income generating opportunities.

Road improvement works would also have a positive impact in terms of the accessibility of local goods to the growth center in the Project area through motorized and faster transport. Economic activities including local trade and commerce will be stimulated by these transport opportunities, which in turn will help in rural poverty alleviation - a principal development objective of the Project.

Bitumen surfaced of the improved Upazila roads and Union roads will facilitate increased traffic of both motorized and non-motorized transport modes. While traffic safety will improve through widening of road width, there may be some negative impact because of fast moving vehicles.

The project actions are not expected to have any negative impact on cultural features, provided any road realignment, if necessary, is adjusted to avoid encroaching upon such features or structures. The road improvement works together with tree plantations on roadsides, will also greatly enhance the visual landscape and aesthetic quality of the entire region.

In a summary, among all the parameters, agricultural land loss is one of the parameters that will have negative impact in road widening works. During the detailed design of upgraded road alignments, special attention shall be paid to minimize the loss of valuable agricultural land. The Project shall include procedures to ensure that the affected persons will be promptly and adequately compensated for their losses.

Environmental Monitoring

Mitigating measures to prevent/minimize negative environmental impacts need to be supplemented with a continuous monitoring or surveillance program. The objectives of environmental monitoring are as follows:

- To ensure compliance and implementation of the recommended mitigation/ avoidance measures; and
- To detect the predicted as well as non-predicted or unforeseen effects project actions.

During the construction phase, the LGED and the Project consultants will be responsible for the monitoring tasks with the Project Implementation Office (PIO) of the Project acting as the coordinating body. Long term monitoring will be carried out by LGED with direct responsibility lying with the PIO, assisted by the Project consultants.

Monitoring of long-term environmental impacts will be a continuing surveillance exercise, but must be manageable within available resources. As part of the maintenance planning process, regular condition surveys shall be carried out on improved roads, which will yield data to monitor certain environmental impacts,

- Soil erosion on road sides, shoulders and embankment slopes
- State of road side tree plantations
- Water congestion, blockages at cross-drainage structures

- Condition of safety features - road signs and markets

It should be complemented by periodic surveys of sample improved roads, growth centers including participatory appraisals with infrastructure users and local residents, to monitor the environmental issues including flood water flow, turbidity on road sides, road side land use, physical condition of submergible roads, effectiveness of growth centers and any unforeseen environmental impacts.

Long-term environmental monitoring will be carried out by LGED with direct responsibility lying with the field officials.

In view of the harmonization, the project will apply the following policy guidelines and procedures to comply with safeguard compliance requirements. At first void or minimize impact as much as possible through alternative design options. Secondly consult affected people and their communities adequately and then make resettlement plans and other related documents available at the project sites and as well as Establish GRC at the local level for speedy resolutions of disputes. After that Determine replacement cost (RC) of assets acquired and compensate at full replacement costs determined by Govt. Land Acquisition Gazette 2017.

5.2 Assessment of Disaster Resilience of the Project

Bangladesh is a country vulnerable to a number of natural and man-made disasters. While cyclones and floods may pose the greatest risk to Bangladesh at national level, it has been identified that the North Eastern and South Eastern regions of Bangladesh are vulnerable to earthquake1. Bangladesh ranks 5th in the World Risk Index 2012, which shows that the country bears the combination of extreme exposure and high vulnerability.

The hazards level for the disaster risk information for the project are listed below:

Name of hazards	Level of risks				
	Very low	Low	Average	High	Very High
Flood		√			
Flash Flood			√		
Cyclone				√	
Earthquake			√		
Erosion	√				
Landslides					√
Salinity				√	
Sea level rise			√		
Storm surge				√	
Drought		√			

The available disaster risk information depict that the project is located in a region which falls under low risk zone. The level risk for landslides is high. So the structure builds under this project in such a way that can sustain salinity.

Impact of Hazards on infrastructure - According to the above table the impact of landslides is

high in risk level in project area. Loss of lives including human and livestock causes due to attack of cyclone. Decrease in Productivity and Imbalance in Biodiversity due salinity.

Impact of infrastructure on hazards - Reduction of Agro-products by reducing land area due to new alignment and possible sea level rise due to high embankment construction.

Listing Proposed Countermeasures

Addressing hazards: Proper design/layout of the embankment should be provide. Height of the roads must be in considerable for preventing water logging in project area.

Vulnerability level for above mention hazards of the project area is low.

Assessment of Resilience

Southwest region is highly climate vulnerable. Natural hazards such as cyclones, tidal surges, riverine floods and salinity intrusion are expected to be more intense in the future. The Southwest region is also at risk of severe droughts. The damage to the country's infrastructure, particularly the transport network, from such events can be extremely detrimental to the economy. To increase resilience, there is a need for a transformational shift towards policies and institutions that enable climate resilient investments.

As every sub-project will be identified, designed and implemented considering its social and environmental implications, these are not expected to pose significant threat to disaster and climate change consequences. Rather these will create a positive impact on social and environmental as well as disaster management.

Emergency management plan: Provision for block grant money must be included for Emergency management plan.

Service Continuity Plan: Provision for using existing set-up of local office during disasters should include in the project, Block grant money also need to address any emergency or for residual risk.

Time of recovery will be 3 (three) month for any emergency.

Section 6: Cost Benefit Analysis

6.1 Financial Analysis

Cost–benefit analysis (CBA), sometimes called benefit costs analysis (BCA), is a systematic approach to estimate the strengths and weaknesses of alternatives (for projects investments); it is used to determine options that provide the best approach to achieve benefits while preserving savings. The CBA is also defined as a systematic process for calculating and comparing benefits and costs of a decision, policy (with particular regard to government policy) or (in general) project. Broadly, CBA has two main purposes: Firstly, to determine if an investment/decision is sound (justification/feasibility) – verifying whether its benefits outweigh the costs, and by how much; and to provide a basis for comparing projects – which involves comparing the total expected cost of each option against its total expected benefits.

In case of this particular "Cox's Bazar District Rural Infrastructure Development Project", no direct financial benefit will be found. Because the construction of road, bridge/culverts will not bring any direct revenue. It will only improve the quality of life of the citizens of the municipality. Some indirect benefit will be got that calculated in economic analysis section.

6.2 Economic Analysis

Direct, Indirect and Benefit Components

Every successful project has a long-term impact during project implementation and after project completion. The goal of each project is to make an impact in the project area in the long run. While the project has a long-term impact on the area, it has consistently been used as a stepping stone to the country's economic transition.

LGED's road development or rural development projects serve as the basis for economic transition or poverty reduction. For rural people, road infrastructure is not just roads. It is also a means of employment and livelihood. With roads, implementation of other programs becomes easier in most cases. The following 2 tables have been prepared by observing the impact of various road development projects. In addition to the effects described in this table, there are observations of various studies on the effects of rural roads which are as follows:

- When road communication is good, agricultural extension workers visit project areas more. As a result, farmers get more advice for better crop production. [Therefore, in order to evaluate the impact of any project of agricultural expansion, the road in the project area will also have an indirect impact]
- When road communication is good, quality education is facilitated. Because, teachers can spend a lot of time in class. [Therefore, if there is an ongoing project to improve the quality of education, the standard road will also have an indirect effect on its impact assessment]

Table: Outcome of LGED's rural infrastructure activities

Direct Benefit	Indirect Benefit
• Job creation • Increase agricultural production • Marketing of agricultural and non-agricultural products • Availability of agricultural materials • Expansion of other businesses including transport • Easy communication system etc.	• Poverty reduction, • Gender equality, • Increase in education rate, • Socio-economic development, • Reducing maternal and child mortality • Development of health system etc.

Table: Logical Framework of impact of rural road project

Sector/Item	Expected Direct Beneficiaries	Project Impacts
Poverty	• Village people • Farmers	• Increase of job and income-generation opportunities • Improved access to new income-generation activities • Improvement of nutrition • Improved access to education of their sons and daughters • Improved access to goods for life
Transportation	• Vehicle operators and passengers • Rural inhabitants and village people	• Reduction in traffic costs for both passengers and cargo • Time saving for rural travelers • Improved access to markets and public health and education facilities
Agriculture	• Farmers • Extension workers	• Improved access to inputs and markets • Lower price of inputs and higher price of harvests • Increase of agricultural production • Reduction of post-harvest losses and spoilage • Improved access to extension services
Health Services	• Village People • Health Workers	• Improved access to hospitals, clinics, pharmacies • Increased visit of health worker
Education	• Students • Girls • Teachers	• Improved access to schools • Improvement of quality of education because of time saving
Market	• Market Traders • Consumers	• Increase in trading volume of goods • Improved access to cleaner and healthier marketing facilities • Additional employment opportunities
Gender	• Member of female and mixed LCS groups • Female members of Union Parishad • Shopkeeper's of women market section at GC • Female producers	• Increase of job and income-generation opportunities • More active participation in UP • Higher income and trading at GC • Improved access to GC for female producers
Local Government	• Union Parishad • Village People	• Provision of more effective public services • Increase of income from leasing

Sector/Item	Expected Direct Beneficiaries	Project Impacts
		of GC and tree plantation • Strengthening of administrative capacity of Union Parishad
Country	• National	• Higher economic growth • Poverty reduction

Adjustment

The Cost-Benefit Analysis (CBA) determines the economic viability of projects at the feasibility study stage. The financial analysis estimates the profitability of a project for the private investor while in economic analysis the benefit of the project vis-a-vis cost is estimated for the economy of the society as a whole. In economic analysis certain prices are required to be adjusted to reflect the social values by using opportunity costs ("shadow price" or "accounting price") and all transfer payments (taxes, subsidies etc.) are excluded. The cost element is fairly straight forward consisting of investment cost, recurring cost and physical contingency. But the benefits vary in form and nature as well as gestation period from project to project. The estimation of benefit, therefore, needs consideration of various tangible and intangible elements. The tangible benefits are quantified in value terms by economic analysis while the intangible benefits are expressed in qualitative terms. The technique for quantification of benefit is selected on the basis of the type and characteristics of the project. The indicators of benefit are identified on the basis of which data are collected from primary and secondary sources. The data are processed and analyzed by different methods depending upon the nature of the project and at the end the norms of economic viability NPV (Net Present Value), BCR (Benefit-Cost Ratio), and EIRR (Economic Internal Rate of Return) are determined.

Different methods/approaches of Economic Analysis for Upazila/ Union roads are applicable and were used in LGED in recent years such as:

- UCS (User's Cost Savings) approach
- VOCs (Vehicle Operating Cost Savings) approach
- APS (Agricultural Produces Surplus) approach

The "Logical Frame Work" prepared by LGED for "Effect Monitoring and Evaluation of Road and Market Improvement", the UCS approach is deemed to be preferable as it's objective is straightforward and less expensive in terms of time and resources compared to the other two methods. The VOCs per TKM/PKM (Ton kilometer/ Passenger kilometer) approach, however, as an accepted method and which is as good as the UCS approach, although it requires a number of assumptions and value judgments, which may vary from person to person. The APS method is subjective, requiring more time, energy and fund for its correct application.

Convert the value of cost and benefit components into economic price by using Standard Conversion Factor (SCF) determined by the Government

Considering the overall situation of the current study basically relies on with and without project concept or before and after case scenario analysis. Without project or before case scenario analysis means there will be no additional work on the project. In this situation, increasing amount of traffic congestion on the road will occur that will result in delay on the road. This will result in additional costs for both freight and passenger vehicles of all categories. On the hand, the after-case scenario means increasing capacity on the existing roads by improving present condition and building additional lanes or spaces on both sides of the roads. This will reduce travel time and costs of all types of vehicles. The difference in

value of the travel time cost and vehicle operating costs in with and without case scenarios provides the actual benefit estimates generated by the project. For the purpose of socio economic assessment, Standard Conversion Factor of the investment cost estimate is consider 0.88.

Construct cash flow

For calculating the present value of the costs and benefits in different years the standard present value formulae used in this study. The present value formulae is: PV= F*{1/(1+i)t}, where PV= present value or the discounted value of the benefit or cost; F = undiscounted of the benefit or cost; r= rate of discount; t=the number of time periods for which the present value is calculated. However the difference between the present values of the benefits expected to be generated during the entire period of the project and the cost incurred for construction, improvement and maintenance of the roads provides the Net Present Value (NPV) of the project. The Benefit Cost Ratio (BCR) has been calculated dividing the net present benefit by the net present cost. The Internal Rate of Return (IRR) has been calculated using interpolation method.

Assumptions

It is relatively difficult to carry out economic survey of rural road projects. The impact of rural roads is diverse. The number of components used in determining the Human Development Index - It is recognized in various international studies that all the indicators of rural roads can work to improve the quality. However, rural roads are an important factor in all these cases. But besides this, there are other government / private projects / programs in education, health, poverty alleviation.

At the international level, Bangladesh is now a role model in the developing world. Apart from progress in various socio-economic indicators, Bangladesh is also a role model in agricultural production. A small country with a large population, Bangladesh, which is a victim of climate change, is now third in rice production, seventh in potato production, third in freshwater fish production and fourth in vegetable / fruit production. In this reality of the country, keeping all the other elements in order, we removed the rural road infrastructure in our minds. As can be seen, all the achievements are suddenly collapsing. Therefore, rural road infrastructure is like a nervous system for the rural areas, which builds a healthy vibrant economy by extending all the benefits to the rural areas.

Different methods are used to find out the direct economic impact of road projects even among the combined effects of different projects / programs. Some of these are widely used methods - vehicle operating cost reduction, travel time reduction. In addition to these two approaches, the project also includes a minimum estimate of agricultural production, employment generation and socio-economic impact.

Selection of Upazila and Union Roads

LGED has been maintaining a good database since 1998. The database contains the technical features as well as socio-economic features of rural roads. In addition to that, it contains design background, construction and maintenance history of a road since construction. The Upazila and Union roads has been selected for the projects based on the following observation

- Traffic data (Annual Average Daily Traffic-AADT and Commercial Vehicle per day (CVD)
- Connectivity of the roads with Upazila HQ, nearest road network, Union Parishads etc.

Connectivity with Growth Centers, Hats, Industries or other socio-economic centers

- Connectivity with Schools, health facilities, farms.
- The partial paved road were considered with priority.
- Local Priority

Selection of Village Roads

Selection of village roads was also made based on technical aspects from the database. In addition to this, it mainly focused on population and facilities served by the road. It was mainly aimed to serve the target 9.1 of Sustainable Development Goal (SDG) that says "Develop quality, reliable, sustainable and resilient infrastructure including regional and trans border infrastructure to support economic development and human wellbeing, with a focus on affordable and equitable access for all. The global indicator for this target says "Proportion of the rural population who live within 2 Km of all season road". In this purview, the selection of village roads were based on the factors

- Villages with significant population that are not yet connected
- Roads with schools, madrasas, hats, ghats, small industries that are quantified to give maximum benefits
- Roads that were partially paved and needs to be full paved to get full potential.
- Local Priority

Road User Cost / Vehicle Operating Cost

There are different categories of road users, like general public and transport owners/workers. For example, the cost of transporting a pickup van per km on a dirt road is 10 taka. However, on a good quality paved road, this pick-up van can be driven every km. The transportation cost is three taka. Because, if the road is good - fuel cost is less, maintenance (servicing, wheels, other parts, mobiles etc.) cost is also less. Investment coverage is also reduced on average as more coverage can be done daily. Road users also depend on the quality of paved roads. For example, if the IRI (International Roughness Index) is six, a pick-up van costs three taka per km. But if the IRI is ten, it can increase to six taka.

The cost of transporting agricultural commodities used to be Tk. 200 per kg, but after road construction it comes down to Tk. 50 per kg. Similarly, the cost of moving oneself is also reduced.

This saved money increases the income of the beneficiaries, increases savings and investment. For example, agriculture will be profitable if transportation of agricultural products is easy and affordable. If farming is profitable, farmers will invest more in agriculture. As the cost of transportation decreases, workers will be more willing to go to work easily. This will increase their income.

Estimates of saving money from Vehicle Operating Cost

The proposed project will increase the AADT (Average Annual Daily Traffic) of roads as a result of road up-gradation. After the completion of LGED's completed road development project, AADT has been seen to increase up to 3-10 times in various fields. However, after gaining initial accessibility, there is no opportunity to increase it many times in the case of subsequent road expansion. Therefore, in the overall judgment, 1.3-1.75 times the traffic of the current ADT has been considered to analyze the benefits derived from vehicle operating cost.

In the case of vehicle operating costs, LGED's 2018 study has been used. It has been seen that as a result of the improvement in the quality of the road, the vehicle operating cost can be reduced from Tk. 1.5 to Tk. 7.5 per km for mechanical vehicles. In case of non-

mechanical vehicles it can be reduced from one to three taka.

On an average, 75 per cent non-mechanical and 35 per cent mechanical vehicles ply on rural roads. Overall, an average saving of Tk. 3 per km per vehicle has been considered from the vehicle operating cost.

Savings from Travel Time Cost

The following two examples can be given to show the saving of travel time.

Remember, Jalil Mia is a worker. He goes from village to town to work. Before the construction of the road, he would go out in the morning and reach the city at ten o'clock. After the construction of the road, he can go to work at eight o'clock every day. As a result, his income has increased one and a half times as compared to the past.

Rahima Begum taught in a school in another village. Prior to the construction of the road, his daily commute took four hours. Now it takes two hours. In these two hours of saving, he planted vegetables and fruits at home. He also raised ducks and chickens. Give the children more time to study.

Estimates of saving money from Travel Time Cost

It is necessary to determine the number of road users to determine the travel time. For this, three users have been counted in each vehicle calculated in AADT. Bangladesh's current per capita GDP is about 2,227 Dollar. If you calculate the average ten-hour working hour, the wage per hour is about 48 Taka. The estimate of the project has been fixed at Tk. 40 per hour.

Impact on Agricultural Production

The total area of Cox's Bazar district is 2,491.86 sq. km. The cultivable land of this district is about 579.91 sq. km. Analyzing the impact of various rural road development projects, it has been seen that rural roads have a significant impact on increasing agricultural production. After the construction of roads in various projects, marketing of agricultural products has become easier, agricultural fertilizers and seeds, movement of workers have also become easier. As a result, agricultural production has increased by about 10-20 percent. The proposed project is road expansion. In general, rural access has a significant impact on agricultural production. This effect gradually diminished during the subsequent road expansion.

According to the data of 2020, Cox's Bazar District currently produces about 8,950 metric tons of aus paddy, 1,96,112 metric tons of aman paddy, 2,01,055 metric tons of boro, 9,530 metric tons of potato.

Apart from road infrastructure, other factors also affect the increase in the production of these agricultural products. The proposed project is expected to increase agricultural production by an average of Tk. 125 crore per annum by limiting the impact of road infrastructure to a minimum of 2%.

Impact on Employment

The project covers a total area of 334.39 km of roads in 09 upazilas of Cox's Bazar District. The impact analysis report of various projects completed by LGED has shown that road development has created employment in a variety of direct and indirect ways. As a result of the construction of the road, it is expected that about 22,000 direct jobs will be created in 08 upazilas. Apart from this, indirectly, opportunities will be created to create part-time / full-time employment for three times more people. To make economic analysis as simple and minimal as possible, it is estimated that the national income will increase by an average of Tk. 264 crore per annum for 22,000 direct jobs. It considers employment as an income of Tk. 10,000

Impact on Education, Health and other Social Indicators

Road construction has a positive impact on education, health and other social indicators. However, there are some aspects of this effect - equivalent to the economic benefits of saving travel time. Since travel time savings have already been considered - education, health and other social indicators have not been considered.

Indicators and Results:

The process of cost benefit analysis would involve four steps, such as:

- Identifying costs by year
- Calculating benefits by year
- Comparing the results
- Analysis on costs and benefits

Economic Net Present Value – (ENPV)

The net present value (NPV) is the current value of all project net benefits. Net benefits are simply the sum of benefits minus costs. The sum is discounted at the discount rate. Using this method, if the project has a NPV greater than zero then it appears to be a good candidate for implementation. The formula used to calculate the NPV is

$$NPV = \sum_{t=1}^{T} \frac{\left(Benefit_t - Cost_t\right)}{(1+r)^t}$$

Where Benefit $_t$ = Benefit in tine t,

Cost $_t$ = Cost in time t,

T = Number of Years, i.e. Life of project

t = Time (1, 2, 3 ..... T)

r = discount rate

Economic Benefit-cost ratio (EBCR)

The benefit-cost ratio (BCR) is calculated as the NPV of benefits divided by the NPV of costs

$$BCR = \frac{\sum_{t=1}^{T} \frac{B_t}{(1+r)^t}}{\sum_{t=1}^{T} \frac{C_t}{(1+r)^t}}$$

Where Benefit $_t$ = Benefit in time t,

Cost $_t$ = Cost in tine t,

T = Number of Years, i.e. Life of project

t = Time (1, 2, 3 ..... T)

r = discount rate

Economic Internal rate of return (EIRR)

The internal rate of return (IRR) is the maximum interest that could be paid for the project resources, leaving enough money to cover investment and operating costs, which would still allow the investor to break even. In other words, the IRR is the discount rate for which the present value of total benefits equals the present value of total costs: PV (Benefits) - PV

(Costs) = 0.

But, for calculating IRR, interpolation method is used. The rule for interpolating the value of the internal rate of return lying between discount rate too high on the one side and at too low on the other is:

Economic Internal Rate of Return (IRR) = $$\mathrm{NPV} = \sum_{n=0}^{N} \frac{C_n}{(1+r)^n} = 0$$

Table - Economic Analysis

Year	Cost		Benefit	Undiscounted Total		12%	Discounted Total (12%)		Net Benefit	
	Investment	Maintenance	Estimated Benefit	Total Cost	Total Benefit		Cost	Benefit	Undiscounted Total	Discounted @ 12%
1st	8390.13	0.00	0.00	8390.13	0.00	0.89	7491.18	0.00	-8390.13	-7491.18
2nd	19151.56	0.00	0.00	19151.56	0.00	0.80	15267.51	0.00	-19151.56	-15267.51
3rd	26142.48	0.00	16450.21	26142.48	-9692.27	0.71	18607.70	-6898.77	-35834.76	-25506.47
4th	18315.82	2081.56	16450.21	20397.38	-3947.17	0.64	12962.90	-2508.50	-24344.55	-15471.40
5th	0.00	2081.56	28204.06	2081.56	26122.50	0.57	1181.13	14822.61	24040.94	13641.47
6th	0.00	2081.56	56962.94	2081.56	54881.38	0.51	1054.58	27804.62	52799.82	26750.03
7th	0.00	2081.56	56962.94	2081.56	54881.38	0.45	941.59	24825.55	52799.82	23883.96
8th	0.00	15687.75	56962.94	15687.75	41275.19	0.40	6336.02	16670.36	25587.44	10334.34
9th	0.00	2081.56	56962.94	2081.56	54881.38	0.36	750.63	19790.78	52799.82	19040.15
10th	0.00	2081.56	56962.94	2081.56	54881.38	0.32	670.21	17670.34	52799.82	17000.13
11th	0.00	2081.56	56962.94	2081.56	54881.38	0.29	598.40	15777.09	52799.82	15178.69
12th	0.00	15687.75	56962.94	15687.75	41275.19	0.26	4026.65	10594.31	25587.44	6567.66
13th	0.00	2081.56	56962.94	2081.56	54881.38	0.23	477.04	12577.40	52799.82	12100.36
14th	0.00	2081.56	56962.94	2081.56	54881.38	0.20	425.93	11229.82	52799.82	10803.89
15th	0.00	2081.56	56962.94	2081.56	54881.38	0.18	380.29	10026.62	52799.82	9646.33
16th	0.00	15687.75	56962.94	15687.75	41275.19	0.16	2559.01	6732.88	25587.44	4173.87
17th	0.00	2081.56	56962.94	2081.56	54881.38	0.15	303.17	7993.16	52799.82	7690.00
18th	0.00	2081.56	56962.94	2081.56	54881.38	0.13	270.69	7136.75	52799.82	6866.07
19th	0.00	2081.56	56962.94	2081.56	54881.38	0.12	241.68	6372.10	52799.82	6130.42
20th	0.00	2081.56	56962.94	2081.56	54881.38	0.10	215.79	5689.38	52799.82	5473.59
	72000.00									
Salvage Value										
Total				148205.09	794885.23		74762.12	206306.49	646680.14	131544.37

Economic Analysis

Economic Net Present Value (ENPV) = Discounted Total Benefits – Discounted Total costs

= 2,06,306.49 – 74,762.12

= 1,31,544.37 Lakh Taka

Economic Benefit Cost Ratio (EBCR) = Discounted Total Benefit ÷ Discounted Total costs

= 2,06,306.49 ÷ 74,762.12

= 2.760

Economic Internal Rate of Return (IRR) = $$\mathrm{NPV} = \sum_{n=0}^{N} \frac{C_n}{(1+r)^n} = 0$$

= 32.76%

Section 7: Human Resources and Administrative Support Analysis

LGED is a national and internationally acclaimed world class engineering department in the field of rural infrastructure development. LGED performs at rural level to create local level infrastructural facilities thus contributing towards the goal of attaining economic growth. LGED has a huge experience and manpower to complete this kind service based project of its own.

The Proposed project needs to be implemented in 09 Upazilas of Cox's Bazar District. A Project Implementation Unit (PIU) needs to be established at the Local Government Engineering Department (LGED) in Dhaka. A full time Project Director, some officers and staffs will employ in deputation in the PIU. The PIU is responsible for overall project management covering:

- consultant recruitment and procurement of works and goods;
- payment of goods, works, and consultants;
- overall contract supervision and quality assurance control;
- project performance monitoring;
- project financial management including timely submission of withdrawal applications, maintenance of financial records and accounts; and
- Submission of quarterly and annual project progress reports, semiannual safeguard monitoring reports (environment), and project completion report.

Existing field staff in LGED offices at upazila-level will be given additional charge for project to perform the following functions:

- conduct of day-to-day inspection of civil works and quality assurance control;
- assistance to preparation of progress reports for assigned contracts;
- verification and certification of contractors' claims and submission of required documents for withdrawal applications; and
- maintenance of project records

Side by side, some support staffs will be hired outsourcing basis for assisting the PIU staffs. On the other hand, the technical employees of the municipalities will be involved for the successful implementation of the project. Moreover, some consultants will be hired for conducting survey, design and supervision of the construction works.

After the completion of the project, it will be operated and maintained in accordance with the Rural Roads and Bridges/Culvert Repair and Maintenance Policy-2013. LGED will do maintenance work under the revenue budget. At the district and upazila level, LGED will be responsible for the operation and maintenance of the institutional manpower infrastructure. Road repairs will require approximately Tk. 2.0 lakhs/km per year and bridge/culvert repairs will require approximately Tk. 0.50 lakhs/m per year.

Section 8: Institutional and Legal analysis

The project to be financed from the National Development Budget and will be implemented by the Local Govt. Engineering Department. Implementation of the infrastructure development activities of the project will enhance the implementation capability and experience of the officials of the LGED working at District & Upazila level. Local people & representatives will be involved in the preparation & implementation of the project activities. As a result implementation capability and experience of local people will increase and it will also create sense of ownership of the infrastructure development under the project by the local people.

The project will be implemented by Local Government Engineering Department (LGED) under the Local Government Division (LGD). Where, the mission of LGD is "Improving the standard of living of the people by strengthening local government systems and institutions and implement activities for social, economic and infrastructure development".

LGED is responsible to achieve those among its other activities, in line with the mission "Development and management of local infrastructure for increasing farm/non-farm production, generating employment, improving socio-economic condition, promoting local governance, reducing poverty and acting as agent of change at the local level",

Proposed project is fully aligned in pursuing with mission, vision and strategic plan of Local Government Division and LGED through development and management of local infrastructure for increasing farm/non-farm production, generating employment, improving socio-economic condition, promoting local governance, reducing poverty and acting as agent of change at the local level.

The proposed activities are completely relevant to the Allocation of Business of the Sponsoring Local Government Rural Development and Cooperatives Ministry/ Local Government Division.

Section 9: Risk (Uncertainty) and Sensitivity Analysis

Institutional capacity risk for implementation and sustainability is Substantial

The project's technical design is simple but will require the continued strong support of local leadership (which has been demonstrated during project preparation) and of its technical staff during implementation. In addition, upazilas will have to only start the preparation of detailed designs of subprojects upon the approval. This implies that disbursement of funds for civil works and the implementation of the first phase of subprojects will likely occur by only the second year of the project.

Environmental and social risk is Substantial

Environmental risk is rated as Moderate, while Social risk is rated as Substantial, thus the combined risk is rated as Substantial. Compliance with the approved Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF), the preparation of subproject ESMPs and RAP (where required), and their satisfactory implementation will be key to addressing environmental and social risks.

Stakeholder risk is Substantial

The project is anticipated to include many citizen stakeholders, and coming to a consensus on designs that are responsive to user needs will be critical to ensure smooth implementation of project interventions. This risk will be mitigated in the following ways. The PIU will develop and implement a communications strategy for the project, with the assistance of expertise financed by the project, which will reach out to all stakeholders (including local-level elected political leaders) and engage them in a meaningful manner with the project's interventions. Bottom-up support and community ownership of the project and specific investment activities will be built through a systematic stakeholder engagement process embedded in the preparation stage for each subproject.

Risk analysis of this project has shown below:

Risks during Implementation and Operation	Mitigation Measures
Project will require involuntary resettlement in some sections. Any delay in resettlement process is likely to delay project works.	Resettlement Action Plan (RAP) will be implemented following Resettlement Policy Framework (RPF) by LGED. Community Organizers at the field level and District Sociologist at the district level will supervise and implement the RAP. However, detail feasibility and design consultants as well as Project Management Consultants would assist LGED staffs to carry out the exercise.
Project requires relocation of utilities that involve utility agencies.	This project has a provision of relocation of utility cost and at the very outset of the project activities, concerned utility agencies will be consulted and communicated to expedite and complete the relocation.
Impacts on Environment	The project has prepared Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) which would be used for preparing case specific subsequent environmental management. It has also prepared Social and

Risks during Implementation and Operation	Mitigation Measures
	Environmental Commitment Plan (ESCP) and Stakeholder Engagement Plan (SEP) which will in turn help LGED to follow World Bank as well as GoB's safeguard policies/rules/procedures.
Procurement Risk Mitigation	Formation of advisory panel on procurement or fiduciary advisory panel of two or three experts satisfactory to the association; the fiduciary panel should include a procurement expert and a financial management expert. The field of expertise of the third member may vary depending upon the fiduciary task most relevant in the period, can meet twice a year to examine the procurement plan and review the institutional framework for procurement in RHD and LGED. They should provide the Head of the Agencies a report with recommendations on risks and opportunities copies to the Bank

Section 10: Alternatives/Options Analysis

Alternative analysis is the evaluation of the different choices available to achieve a particular project management objective. It is an analytical comparison of different factors like operational cost, risks, effectiveness as well as the shortfalls in an operational capability. It requires different tools such as life-cycle costing, sensitivity analysis, and cost-benefit analysis. With alternative analysis, options to the solution are identified to satisfy the needs of an existing or new program. The best alternative option has been selected for development of infrastructures under Cox's Bazar District Rural Infrastructure Development Project.

Section 11: Recommendation and Conclusion

Recommendation

The Cox's Bazar District Rural Infrastructure Development Project will be implemented at a cost of Tk. 72000.00 lakh BDT including physical contingencies and price escalation. The upazila parishad undertakes limited development activities through the allotted allocation of the annual development program which is inadequate compared to the demand. In addition, some infrastructures development has been undertaken under some development projects which were also insufficient. If the proposed project is implemented, it will be possible to transform the existing civic problems into the upazilas with integrated and better modern civic services.

The project's investments will directly benefit lower income groups, women and children who are expected to be the primary users of improved infrastructure. The neighborhoods/areas of upazilas selected for inclusion in the project are primarily low, lower-middle and middle income in nature. Likewise, improvements in rural services will also directly impact the poor.

The project is viable means that the project is acceptable. Considering long term benefit it would be better to consider the project for approval.

Conclusion

Project appraisal and evaluation are often referred to together as project assessment, project appraisal is concerned with assessing, in advance, whether a project is worthwhile and therefore if it should be proceeded with. The process of project evaluation is concerned with assessing, in a retrospective sense, the performance of a project after it has been implemented and completed. Such a process of policy assessment occupies a central place in public policy and management. Many of the issues of public policy and management are about resource allocation, the trade-offs between different policy measures and the impacts of those policy measures on the economy and on society. Management in the public sector is subject to budgetary constraints and often to political pressures; project appraisal techniques may help in the decision process and obtain a more efficient allocation of resources. The study area contains very important area 09 upazilas of Cox's Bazar District. Several classes of people live in this area. Condition of upazila road, Union road, Village road, drainage, culverts, bridges and others infrastructure are very poor of that area. Proper project implementation may help to facilitate regular amenities of the study area.

From the above facts and findings it can be stated that the project has a positive impact on inhabitants, passengers and surrounding peoples. The analysis shows that the project will be viable both from individual and social point of view. After project completion, comfort of civic life will be increased. After the implementation of the project, uninterrupted road network will be established in the project area which will reduce the production cost and transportation cost of various agricultural/non-agricultural products. As a result, production is expected to increase. The result of EIRR is more than 12% which indicates that the project is viable both for individual and social point of view. On the basis of all result also Cost benefit analysis it is easy to say the project is viable means that the project is acceptable. Considering long term benefit it would be better to consider the project for approval.

Section 12: Annexes

Attached herewith detailed Financial and Economic models and supporting documents

Table – Maintenance Cost

Estimation of Maintenance Cost			
Item	**Unit (km/ m)**	**Unit Cost (In Lakh)**	**Total (In Lakh) Per Year**
Road Upgradation (km)	334.39	4	1337.56
Bridge/ Culvert	2176.000	0.25	544
Others	Lump-sum		200
Total		**2,081.56**	

Periodic Maintenance Cost in Year 8, Year 12 and Year 16			
Item	**Unit (km/ m)**	**Unit Cost (In Lakh)**	**Total (In Lakh) Per Year**
Road Upgradation (km)	334.39	25	8359.75
Bridge/ Culvert	2176.000	3	6528
Others	Lump-sum		800
Total			**15,687.75**

Table – Agricultural and Employment Cost

Year	Agricultural Benefit in Lakh Taka	Employment Benefit in Lakh Taka
1st Year	0	0
2nd Year	0	0
3rd Year	2500	5280
4th Year	2500	5280
5th Year	5000	10560
6th Year	12500	26400
7th Year	12500	26400
8th Year	12500	26400
9th Year	12500	26400
10th Year	12500	26400
11th Year	12500	26400
12th Year	12500	26400
13th Year	12500	26400
14th Year	12500	26400
15th Year	12500	26400
16th Year	12500	26400
17th Year	12500	26400
18th Year	12500	26400
19th Year	12500	26400
20th Year	12500	26400

Table - Vehicle Operating Cost + Travel Time Cost Analysis

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
1	Cox's bazar	Chakaria	Kakra Badshatek RHD-Manikpur GC Road.	422162002	1.00	3009	0.090	32.95	6018.00	2.41	878.63	911.58
2	Cox's bazar	Chakaria	Badarkhali GC - Choarfarri Bazar RHD Road.	422162009	4.81	4696	0.141	247.34	9392.00	3.76	1371.23	1618.57
3	Cox's bazar	Chakaria	Harbung RHD/UP Office to Shilkhali Raod.	422163002	3.95	2068	0.062	89.45	4136.00	1.65	603.86	693.30
4	Cox's bazar	Chakaria	Chakoria Upazilla HQ -Palakata Jetty via Cheringa UP Office Road.	422163007	1.30	2023	0.061	28.80	4046.00	1.62	590.72	619.51
5	Cox's bazar	Chakaria	BM Char UP - Konakhali - Demushia UP Road.	422163009	4.05	766	0.023	33.97	1532.00	0.61	223.67	257.64
6	Cox's bazar	Chakaria	Bamubill Chari UP - Khrestan Missionery - Lama Bazar Road.	422163015	2.58	935	0.028	26.41	1870.00	0.75	273.02	299.43

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
7	Cox's bazar	Chakaria	Khutakhali RHD - East Side Paglichara Bill Road.	422164010	1.60	125	0.004	2.19	250.00	0.10	36.50	38.69
8	Cox's bazar	Chakaria	RHD Dorga Gate - Fulchari GPS Road.	422164011	1.50	90	0.003	1.48	180.00	0.07	26.28	27.76
9	Cox's bazar	Chakaria	Korban Ali Road.	422164027	1.50	119	0.004	1.95	238.00	0.10	34.75	36.70
10	Cox's bazar	Chakaria	Azam Nagar Road.	422164029	1.10	125	0.004	1.51	250.00	0.10	36.50	38.01
11	Cox's bazar	Chakaria	Badarkhali IFAD Cyclone shelter connecting Road.	422164038	1.00	70	0.002	0.77	140.00	0.06	20.44	21.21
12	Cox's bazar	Chakaria	Bogachara sluice gate Road.	422164043	1.50	87	0.003	1.43	174.00	0.07	25.40	26.83
13	Cox's bazar	Chakaria	Ulubunia Road.	422164058	0.20	123	0.004	0.27	246.00	0.10	35.92	36.19

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
14	Cox's bazar	Chakaria	Malumghat Bazar RHD - Cha Bagan - Lama Connecting Road.	422164071	0.60	125	0.004	0.82	250.00	0.10	36.50	37.32
15	Cox's bazar	Chakaria	Demushia UP - Choy Kuri Tikka - West Dhemushia GPS UZR Connecting Road.	422164079	3.80	118	0.004	4.91	236.00	0.09	34.46	39.37
16	Cox's bazar	Chakaria	Dulahajra RHD-Kayer Dapa Road.	422164102	2.50	111	0.003	3.04	222.00	0.09	32.41	35.45
17	Cox's bazar	Chakaria	Dulahazara - Malumghat RHD Road.	422164104	1.00	94	0.003	1.03	188.00	0.08	27.45	28.48
18	Cox's bazar	Chakaria	BM Char Mama Vagina Road - Ancholik Moha Sorok Road Via Batua GPS Road.	422164110	1.74	123	0.004	2.34	246.00	0.10	35.92	38.26
19	Cox's bazar	Chakaria	Purboboro Vaula Eidmoni Dokhin Postim Para Road.	422164126	2.50	122	0.004	3.34	244.00	0.10	35.62	38.96

Sl. No	Distfict Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
20	Cox's bazar	Chakaria	West Buri Pukur Abdul Jabbar Road - Hatalia Para Charan Deep Road.	422164130	3.00	126	0.004	4.14	252.00	0.10	36.79	40.93
21	Cox's bazar	Chakaria	Kakara Shah Omar - RHD Road - Proper Kakara UNR Road.	422165053	0.75	125	0.004	1.03	250.00	0.10	36.50	37.53
22	Cox's bazar	Chakaria	Fashiakhali Shah Shuja Road.	422165066	1.19	115	0.003	1.50	230.00	0.09	33.58	35.08
23	Cox's bazar	Chakaria	Badarkhali Jabber Nagar Vote Centre Road.	422165075	2.00	88	0.003	1.93	176.00	0.07	25.70	27.62
24	Cox's bazar	Chakaria	Manikpur Lambaghat Road.	422165090	1.30	99	0.003	1.41	198.00	0.08	28.91	30.32
25	Cox's bazar	Chakaria	Maiz Kakara (jame Mosque)-Hazian GPS Road.	422165133	0.45	118	0.004	0.58	236.00	0.09	34.46	35.04

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
26	Cox's bazar	Chakaria	Muslim Nagar - Ghonia Via Olisah Bazar Road	422165137	3.45	80	0.002	3.02	160.00	0.06	23.36	26.38
27	Cox's bazar	Chakaria	Badar Khali (RHD) - To Khal Khaca Para Road	422165143	2.20	80	0.002	1.93	160.00	0.06	23.36	25.29
28	Cox's bazar	Eidgaon	Chowfandandi GC to Kalirchara RHD	422242005	3.00	4407	0.132	144.77	8814.00	3.53	1286.84	1431.61
29	Cox's bazar	Eidgaon	Eid Gaon G.C-Gomatoli Jety Bazar Via Gomatoli Bazar Road.	422243003	1.88	314	0.009	6.46	628.00	0.25	91.69	98.15
30	Cox's bazar	Eidgaon	Pokkhali UP office-Chowfaldandi UP office via Naykondia Road.	422243015	4.25	668	0.020	31.09	1336.00	0.53	195.06	226.14
31	Cox's bazar	Eidgaon	Pokkhali UP office-Gomatali Bazar Road.	422243016	4.00	781	0.023	34.21	1562.00	0.62	228.05	262.26

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
32	Cox's bazar	Eidgaon	Tetoya P/School Road	422244006	1.00	99	0.003	1.08	198.00	0.08	28.91	29.99
33	Cox's bazar	Eidgaon	Eidgoan South maizpara	422244015	1.00	95	0.003	1.04	190.00	0.08	27.74	28.78
34	Cox's bazar	Eidgaon	Eidgoan Collage Road	422244046	1.50	116	0.003	1.91	232.00	0.09	33.87	35.78
35	Cox's bazar	Eidgaon	Muslim Bazar-Pokkhali High school via Shikderpara Road	422244048	1.22	102	0.003	1.36	204.00	0.08	29.78	31.15
36	Cox's bazar	Eidgaon	Jalalabad UP office-Nutan mohal Bazar via Iarabag Road	422244069	2.00	73	0.002	1.60	146.00	0.06	21.32	22.91
37	Cox's bazar	Eidgaon	North mizpara Road	422245029	1.00	112	0.003	1.23	224.00	0.09	32.70	33.93
38	Cox's bazar	Eidgaon	Khodaibari Road	422245037	0.60	85	0.003	0.56	170.00	0.07	24.82	25.38

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC+ TTC
39	Cox's bazar	Eidgaon	Eidgaon jagirpara Rd.	422245076	0.50	85	0.003	0.47	170.00	0.07	24.82	25.29
40	Cox's bazar	Eidgaon	Meherghona Pry.school Rd.	422245079	0.50	71	0.002	0.39	142.00	0.06	20.73	21.12
41	Cox's bazar	Eidgaon	Kalirchara jangle machuakhali Rd.	422245080	1.50	74	0.002	1.22	148.00	0.06	21.61	22.82
42	Cox's bazar	Eidgaon	Telipara Rd.	422245087	0.75	94	0.003	0.77	188.00	0.08	27.45	28.22
43	Cox's bazar	Eidgaon	Middle napithkhali pry.school Rd.	422245099	0.60	80	0.002	0.53	160.00	0.06	23.36	23.89
44	Cox's bazar	Eidgaon	West khanghona mosque Rd.	422245104	1.30	101	0.003	1.44	202.00	0.08	29.49	30.93
45	Cox's bazar	Eidgaon	Middle khamar para Rd.	422245112	0.50	78	0.002	0.43	156.00	0.06	22.78	23.20

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
46	Cox's bazar	Eidgaon	Shikderpara Road	422245143	1.00	123	0.004	1.35	246.00	0.10	35.92	37.26
47	Cox's bazar	Eidgaon	Safar micher house to Godampara Road	422245195	0.50	76	0.002	0.42	152.00	0.06	22.19	22.61
48	Cox's bazar	Eidgaon	Kutubjuri babul house to Helor shope road	422245239	1.00	85	0.003	0.93	170.00	0.07	24.82	25.75
49	Cox's bazar	Eidgaon	Nonamiah Road	422245293	0.50	80	0.002	0.44	160.00	0.06	23.36	23.80
50	Cox's bazar	Eidgaon	Eidgoan UP 9 No woard Kainderio mosque road to west Vomoria ghona mosque road	422245493	0.50	80	0.002	0.44	160.00	0.06	23.36	23.80
51	Cox's bazar	Eidgaon	Bamonkata mosque to Dulafakir Mazar road	422245429	0.50	120	0.004	0.66	240.00	0.10	35.04	35.70

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit VOC + TTC
52	Cox's bazar	Eidgaon	Farajer-House-Naykondia Govt.pry.school Road	422244053	1.00	74	0.002	0.81	148.00	0.06	21.61	22.42
53	Cox's bazar	Eidgaon	Battalipara-mojaffar Rich mill Road	422244054	1.50	126	0.004	2.07	252.00	0.10	36.79	38.86
54	Cox's bazar	Kutubdia	Sadergona - Zummapara Road	422454002	1.39	90	0.003	1.37	180.00	0.07	26.28	27.65
55	Cox's bazar	Kutubdia	Azam road (R&H) - Teliakata Road via Moulavi para .	422454005	0.75	123	0.004	1.01	246.00	0.10	35.92	36.93
56	Cox's bazar	Kutubdia	Afzol Road	422454010	0.75	118	0.004	0.97	236.00	0.09	34.46	35.43
57	Cox's bazar	Kutubdia	Chand Gazi road	422454018	1.75	120	0.004	2.30	240.00	0.10	35.04	37.34
58	Cox's bazar	Kutubdia	Zafar Ahmed Chy. Road.	422454019	1.75	94	0.003	1.80	188.00	0.08	27.45	29.25

Sl. No	District Name	Upazila's Name	Scheme Name	Road ID	Road Length (km)	Estimated AADT	Vehicle Operating Cost, Per Km/Per Day (Lakh Taka)	Vehicle Operating Cost, Save/Year	Number of Road User/Per Day	Travel Time Cost Save/ Per Day (Lakh Taka)	Travel Time Cost Save/ Per Year	Total Benefit, VOC + TTC
59	Cox's bazar	Kutubdia	Gaina kata Road	422454023	0.65	112	0.003	0.80	224.00	0.09	32.70	33.50
60	Cox's bazar	Kutubdia	Miyarakata Road	422454024	1.80	78	0.002	1.54	156.00	0.06	22.78	24.31
61	Cox's bazar	Kutubdia	Mogdail Amjakhali Road	422454028	0.88	119	0.004	1.15	238.00	0.10	34.75	35.89
62	Cox's bazar	Kutubdia	Azam road(R&H) - Kutubdia Berry Badth road	422454029	1.00	83	0.002	0.91	166.00	0.07	24.24	25.14
63	Cox's bazar	Kutubdia	Azam road(R&H) - Dhurong kacha Road	422454030	0.65	126	0.004	0.90	252.00	0.10	36.79	37.69
64	Cox's bazar	Kutubdia	Dhurang Bazar GC - Old light house Road	422454032	0.50	76	0.002	0.42	152.00	0.06	22.19	22.61
65	Cox's bazar	Kutubdia	Mirakhali Cyclone Shelter connecting Road	422454039	0.60	111	0.003	0.73	222.00	0.09	32.41	33.14

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66	Cox's bazar	Kutubdia	Lutfapara (UZR) - Uttar Lemshikhali Road	422454041	1.00	123	0.004	1.35	246.00	0.10	35.92	37.26
67	Cox's bazar	Kutubdia	Al-haj Towfail Ahamed House (GPS) - Dhurang Kacha road	422454048	1.00	77	0.002	0.84	154.00	0.06	22.48	23.33
68	Cox's bazar	Kutubdia	Napitpara - Layszzar Para road	422454050	1.00	120	0.004	1.31	240.00	0.10	35.04	36.35
69	Cox's bazar	Kutubdia	Azam road (R& H - Kutubdia Berry Badth road	422455003	0.25	99	0.003	0.27	198.00	0.08	28.91	29.18
70	Cox's bazar	Kutubdia	Siddique Hajee Road	422455004	1.00	108	0.003	1.18	216.00	0.09	31.54	32.72
71	Cox's bazar	Kutubdia	Reazer para Road	422455005	0.40	88	0.003	0.39	176.00	0.07	25.70	26.08
72	Cox's bazar	Kutubdia	Hamjier baper para Rd	422455006	0.80	80	0.002	0.70	160.00	0.06	23.36	24.06

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73	Cox's bazar	Kutubdia	Nurar Para Road.	422455009	2.00	115	0.003	2.52	230.00	0.09	33.58	36.10
74	Cox's bazar	Kutubdia	Vaigger Para Road.	422455015	1.10	74	0.002	0.89	148.00	0.06	21.61	22.50
75	Cox's bazar	Kutubdia	Asha Hazi para Road	422455019	0.80	92	0.003	0.81	184.00	0.07	26.86	27.67
76	Cox's bazar	Kutubdia	Zahelia Para Road.	422455036	1.50	74	0.002	1.22	148.00	0.06	21.61	22.82
77	Cox's bazar	Kutubdia	Koraller Para Kobarsthan Road.	422455038	1.00	109	0.003	1.19	218.00	0.09	31.83	33.02
78	Cox's bazar	Kutubdia	Afaj Uddin Sikder Para Mosque Road.	422455043	1.00	109	0.003	1.19	218.00	0.09	31.83	33.02
79	Cox's bazar	Kutubdia	Anu Miazi Para Road.	422455044	1.00	118	0.004	1.29	236.00	0.09	34.46	35.75

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80	Cox's bazar	Kutubdia	Rumai Para Mosque Road.	422455059	0.40	112	0.003	0.49	224.00	0.09	32.70	33.19
81	Cox's bazar	Kutubdia	Haider ali Miazi Para Road.	422455070	1.00	99	0.003	1.08	198.00	0.08	28.91	29.99
82	Cox's bazar	Kutubdia	Zulekhar Para Road .	422455078	0.50	115	0.003	0.63	230.00	0.09	33.58	34.21
83	Cox's bazar	Kutubdia	Samitty Road .	422455098	2.30	113	0.003	2.85	226.00	0.09	33.00	35.84
84	Cox's bazar	Kutubdia	Dhurang Gc-Nathpara Kali Mondir Road	422455104	1.20	70	0.002	0.92	140.00	0.06	20.44	21.36
85	Cox's bazar	Kutubdia	Sadarghona - Bayangakata GPS Road	422455105	1.30	77	0.002	1.10	154.00	0.06	22.48	23.58
86	Cox's bazar	Kutubdia	Motir Baper Para road(Shako - Shako)	422455108	1.00	84	0.003	0.92	168.00	0.07	24.53	25.45

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87	Cox's bazar	Moheshkhali	Lalmohammad Sikderpara road via Ashrayon ProKolpo	422493001	4.39	937	0.028	45.04	1874.00	0.75	273.60	318.65
88	Cox's bazar	Moheshkhali	Gorakghata-Ghatibanga Sonadia road.	422493003	8.10	300	0.009	26.61	600.00	0.24	87.60	114.21
89	Cox's bazar	Moheshkhali	Fakirakata-W A P D A Emb road.	422494008	1.00	90	0.003	0.99	180.00	0.07	26.28	27.27
90	Cox's bazar	Moheshkhali	Sarderghona Bazar-Hargila Road	422495006	1.00	70	0.002	0.77	140.00	0.06	20.44	21.21
91	Cox's bazar	Moheshkhali	Hamidur Rohman Para Road.	422495014	1.05	106	0.003	1.22	212.00	0.08	30.95	32.17
92	Cox's bazar	Moheshkhali	Hariar Chara-Pachim Para road	422495017	0.66	113	0.003	0.82	226.00	0.09	33.00	33.81
93	Cox's bazar	Moheshkhali	Chiknipara Road	422495029	1.42	73	0.002	1.14	146.00	0.06	21.32	22.45

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94	Cox's bazar	Moheshkhali	Kalalia kata Road	422495033	0.96	73	0.002	0.77	146.00	0.06	21.32	22.08
95	Cox's bazar	Moheshkhali	Panditer Dail Road.	422495040	1.00	94	0.003	1.03	188.00	0.08	27.45	28.48
96	Cox's bazar	Moheshkhali	Sonapara Road.	422495048	1.00	126	0.004	1.38	252.00	0.10	36.79	38.17
97	Cox's bazar	Moheshkhali	Bandi Sikdarpara to Wapda Embankment Road.	422495046	0.50	92	0.003	0.50	184.00	0.07	26.86	27.37
98	Cox's bazar	Moheshkhali	Moinul Islam Madrasa Road.	422495049	0.50	118	0.004	0.65	236.00	0.09	34.46	35.10
99	Cox's bazar	Moheshkhali	Fakira Ghona Road.	422495050	0.65	99	0.003	0.70	198.00	0.08	28.91	29.61
100	Cox's bazar	Moheshkhali	Office Para Road.	422495051	0.50	90	0.003	0.49	180.00	0.07	26.28	26.77

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101	Cox's bazar	Moheshkhali	Adhar ghona Road.	422495052	1.23	90	0.003	1.21	180.00	0.07	26.28	27.49
102	Cox's bazar	Moheshkhali	Markha ghona Road.	422495053	1.00	78	0.002	0.85	156.00	0.06	22.78	23.63
103	Cox's bazar	Moheshkhali	Shaplapur Launch Ghat Road.	422495054	1.00	85	0.003	0.93	170.00	0.07	24.82	25.75
104	Cox's bazar	Moheshkhali	Shatghar para Road.	422495055	0.78	101	0.003	0.86	202.00	0.08	29.49	30.36
105	Cox's bazar	Moheshkhali	Kutumjoom Gorostan Road.	422495075	0.73	120	0.004	0.96	240.00	0.10	35.04	36.00
106	Cox's bazar	Moheshkhali	Meheria Para Road.	422495077	0.40	125	0.004	0.55	250.00	0.10	36.50	37.05
107	Cox's bazar	Moheshkhali	Pahartali to Sukuria para road.	422495086	1.00	104	0.003	1.14	208.00	0.08	30.37	31.51

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108	Cox's bazar	Moheshkhali	Chandakata-Mogkata road	422495102	0.80	105	0.003	0.92	210.00	0.08	30.66	31.58
109	Cox's bazar	Moheshkhali	Hamidur Rahman Azad road (Barua Bazar- Matarbari road)	422495115	1.50	115	0.003	1.89	230.00	0.09	33.58	35.47
110	Cox's bazar	Moheshkhali	South Nalbila-Talipara Burunaghat road	422495124	0.79	78	0.002	0.67	156.00	0.06	22.78	23.45
111	Cox's bazar	Moheshkhali	Matarbari-Maijpara - Sea Beach Embankment road	422495127	0.51	120	0.004	0.67	240.00	0.10	35.04	35.71
112	Cox's bazar	Moheshkhali	Mokbaki Budarpara road	422495140	2.32	95	0.003	2.41	190.00	0.08	27.74	30.15
113	Cox's bazar	Pekua	Charapara RHD to PABT Via Sowdagarhat GC Road.	422952001	1.79	3566	0.107	69.90	7132.00	2.85	1041.27	1111.17
114	Cox's bazar	Pekua	Pekua Bazar to PABT via Maulavi Bazar connecting road.	422953003	1.91	937	0.028	19.60	1874.00	0.75	273.60	293.20

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115	Cox's bazar	Pekua	Pekua bazar to Janota Bazar (via PABT Barbakia Porbo paschim Road).	422953006	5.00	206	0.006	11.28	412.00	0.16	60.15	71.43
116	Cox's bazar	Pekua	Taitong-Barabakia-Rajakhali Darbaghat road.	422953008	0.50	356	0.011	1.95	712.00	0.28	103.95	105.90
117	Cox's bazar	Pekua	Rajakhali Union officer to Amin Bazar road.	422953011	0.55	512	0.015	3.08	1024.00	0.41	149.50	152.59
118	Cox's bazar	Pekua	Barabakia Bhogerpoarghona (Bodha mazirghona) road.	422954010	3.00	78	0.002	2.56	156.00	0.06	22.78	25.34
119	Cox's bazar	Pekua	Showdagarhat G.C to Rupali Bazar via Sabek Goldee Sharkarighona RHD Road	422954017	4.50	76	0.002	3.74	152.00	0.06	22.19	25.94
120	Cox's bazar	Pekua	Barabakia Shawdagorhat-Cepta Mura-Lamba Mura-Shilkhali Bazar connecting road.	422954025	3.00	95	0.003	3.12	190.00	0.08	27.74	30.86

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121	Cox's bazar	Pekua	Pekua Bazar Embankment to Shekerkilla internal road viaRHD road.	422954029	2.00	125	0.004	2.74	250.00	0.10	36.50	39.24
122	Cox's bazar	Pekua	Sherali Masterpara-Arabshah Bazar GC Road	422954030	1.28	91	0.003	1.28	182.00	0.07	26.57	27.85
123	Cox's bazar	Pekua	Shikdar para Kabarstan-Purbo Goakhali Mosque Road	422954032	1.21	90	0.003	1.19	180.00	0.07	26.28	27.47
124	Cox's bazar	Pekua	Uzintia Hajee Tazu Mia Road.	422955002	1.50	112	0.003	1.84	224.00	0.09	32.70	34.54
125	Cox's bazar	Pekua	Toitong Mijeer Para Road.	422955004	2.15	85	0.003	2.00	170.00	0.07	24.82	26.82
126	Cox's bazar	Pekua	Pekua Shaker Killagona Road.	422955008	1.60	81	0.002	1.42	162.00	0.06	23.65	25.07
127	Cox's bazar	Pekua	Pekua North Nunnachara road.	422955018	2.32	70	0.002	1.78	140.00	0.06	20.44	22.22

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128	Cox's bazar	Pekua	Toitong Bankanan road (Moullavi Hazi Mozahar Road)	422955020	1.00	116	0.003	1.27	232.00	0.09	33.87	35.14
129	Cox's bazar	Pekua	Shilkhali Monshimura Vill. Road.	422955022	1.50	81	0.002	1.33	162.00	0.06	23.65	24.98
130	Cox's bazar	Pekua	Toitong Abdul Hakim Road.	422955025	2.10	116	0.003	2.67	232.00	0.09	33.87	36.54
131	Cox's bazar	Pekua	Pekua Sarkari Ghona Road.	422955026	1.80	112	0.003	2.21	224.00	0.09	32.70	34.91
132	Cox's bazar	Pekua	Raybapar para-Faizunnasa School Road.	422955028	3.00	77	0.002	2.53	154.00	0.06	22.48	25.01
133	Cox's bazar	Ramu	Beltali - Garjania Bazar Road.	422662004	0.70	5167	0.155	39.61	10334.00	4.13	1508.76	1548.37
134	Cox's bazar	Ramu	Joarianala GC - Bengdeba Baisari GC Road	422662006	1.00	3597	0.108	39.39	7194.00	2.88	1050.32	1089.71

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135	Cox's bazar	Ramu	Naikhangchari Hazipara BDR Camp Road.	422663010	1.00	766	0.023	8.39	1532.00	0.61	223.67	232.06
136	Cox's bazar	Ramu	Ramu Ukhiyer Ghona (RHD) - Garjania Road	422663011	2.87	683	0.020	21.46	1366.00	0.55	199.44	220.90
137	Cox's bazar	Ramu	Rajarkul UP Office - Shikalghat - Kawarkhope UP Road.	422663013	3.10	512	0.015	17.38	1024.00	0.41	149.50	166.88
138	Cox's bazar	Ramu	Techipul - Joarianala Bazar Road.	422663014	1.00	361	0.011	3.95	722.00	0.29	105.41	109.36
139	Cox's bazar	Ramu	Joarianala UP - Mohasina Bazar via Nandhakali Road.	422663015	3.10	511	0.015	17.35	1022.00	0.41	149.21	166.56
140	Cox's bazar	Ramu	Ukhiarghona - Primary School Road.	422664012	2.00	78	0.002	1.71	156.00	0.06	22.78	24.48
141	Cox's bazar	Ramu	Panerchara - Rajarkul Road.	422664017	2.35	115	0.003	2.96	230.00	0.09	33.58	36.54

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142	Cox's bazar	Ramu	Uttar Mithachari - Pachim Nonachari Road.	422664020	1.88	98	0.003	2.02	196.00	0.08	28.62	30.63
143	Cox's bazar	Ramu	Samiti Para Road.	422664025	2.50	102	0.003	2.79	204.00	0.08	29.78	32.58
144	Cox's bazar	Ramu	Kaccapia UP-Rubber Dam Connecting Road	422664027	3.60	104	0.003	4.10	208.00	0.08	30.37	34.47
145	Cox's bazar	Ramu	Moiskum Bridge - Mokters Bari Road.	422664029	0.70	120	0.004	0.92	240.00	0.10	35.04	35.96
146	Cox's bazar	Ramu	Arkan road to Mymun Ali Mosque road.	422664030	0.50	104	0.003	0.57	208.00	0.08	30.37	30.94
147	Cox's bazar	Ramu	Paiu Began west Thonga para Road. (U.P. Khuniapalong)	422664034	1.30	120	0.004	1.71	240.00	0.10	35.04	36.75
148	Cox's bazar	Ramu	Ramu Moinul Ali mosuqe - Sikder para Road. (U.P. Fathakhakul)	422664035	1.20	112	0.003	1.47	224.00	0.09	32.70	34.18

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149	Cox's bazar	Ramu	Joarianala Shwdagor Para - Uttar Mithachari Road. (U.P. Joarianana)	422664037	2.00	119	0.004	2.61	238.00	0.10	34.75	37.35
150	Cox's bazar	Ramu	Narikal Bagan - Purba Marangloa Road.	422665010	0.71	97	0.003	0.75	194.00	0.08	28.32	29.08
151	Cox's bazar	Ramu	Sha Suza RHD to Uttar Bara Bill via Jomchari bazar road	422665019	3.00	126	0.004	4.14	252.00	0.10	36.79	40.93
152	Cox's bazar	Ramu	Kowarkhope - Sonaichari hill Road	422665058	2.50	126	0.004	3.45	252.00	0.10	36.79	40.24
153	Cox's bazar	Ramu	Nasira para Cyclone Centre - Dhairchara Road.	422665066	2.10	102	0.003	2.35	204.00	0.08	29.78	32.13
154	Cox's bazar	Ramu	R & H Road - Ultakhali Road	422665071	2.70	77	0.002	2.28	154.00	0.06	22.48	24.76
155	Cox's bazar	Ramu	Kowerkope Moulovi Abdul Haque Rice Mill - Village para	422665190	1.00	123	0.004	1.35	246.00	0.10	35.92	37.26

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			Road. (UP Kowerkope)									
156	Cox's bazar	Sadar	P.M Khali-Ghona para Rd	422244001	1.00	87	0.003	0.95	174.00	0.07	25.40	26.36
157	Cox's bazar	Sadar	Dailpara Bazar to Annodhara Abason Road	422244005	1.40	81	0.002	1.24	162.00	0.06	23.65	24.89
158	Cox's bazar	Sadar	Bharuakhali J.T Road	422244031	4.35	85	0.003	4.05	170.00	0.07	24.82	28.87
159	Cox's bazar	Sadar	Charag ghor Bazar-Rubber Dam via pachim jumchari pry. School Road	422244045	1.60	125	0.004	2.19	250.00	0.10	36.50	38.69
160	Cox's bazar	Sadar	East Kalatali R&H Road-Marin drive Cannecting Road	422244062	1.00	123	0.004	1.35	246.00	0.10	35.92	37.26
161	Cox's bazar	Sadar	Chowfaldandi UP office-Kamarpara Bazar via Sikderpara Sluice Gate Road	422244068	5.00	109	0.003	5.97	218.00	0.09	31.83	37.80

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162	Cox's bazar	Sadar	Samundar para Road	422245001	0.50	120	0.004	0.66	240.00	0.10	35.04	35.70
163	Cox's bazar	Sadar	Khurulia Ghatpara Road	422245003	1.35	83	0.002	1.23	166.00	0.07	24.24	25.46
164	Cox's bazar	Sadar	Bangla bazar west dikpara Rd	422245010	0.50	85	0.003	0.47	170.00	0.07	24.82	25.29
165	Cox's bazar	Sadar	P.M Khali Napit para Road	422245013	1.00	94	0.003	1.03	188.00	0.08	27.45	28.48
166	Cox's bazar	Sadar	P.M khali Tehirghona Road	422245014	2.50	84	0.003	2.30	168.00	0.07	24.53	26.83
167	Cox's bazar	Sadar	Khamar para Rd	422245026	3.40	78	0.002	2.90	156.00	0.06	22.78	25.68
168	Cox's bazar	Sadar	Eidgoan Machukhali Road	422245031	0.50	87	0.003	0.48	174.00	0.07	25.40	25.88

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169	Cox's bazar	Sadar	Larpara Rd.	422245059	1.00	113	0.003	1.24	226.00	0.09	33.00	34.23
170	Cox's bazar	Sadar	Baruapara sutachura Rd.	422245064	0.50	88	0.003	0.48	176.00	0.07	25.70	26.18
171	Cox's bazar	Sadar	Kharulia sikdarpara Rd.	422245065	0.50	104	0.003	0.57	208.00	0.08	30.37	30.94
172	Cox's bazar	Sadar	Chankhola Nayapara Rd.	422245072	2.00	88	0.003	1.93	176.00	0.07	25.70	27.62
173	Cox's bazar	Sadar	Middle Bhomoriaghona Rd.	422245078	0.50	95	0.003	0.52	190.00	0.08	27.74	28.26
174	Cox's bazar	Sadar	Baharchara mohanvila Rd.	422245083	1.00	111	0.003	1.22	222.00	0.09	32.41	33.63
175	Cox's bazar	Sadar	West Larpara Road	422245157	0.50	92	0.003	0.50	184.00	0.07	26.86	27.37

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176	Cox's bazar	Sadar	Larpara Islamabad main Road.	422245158	1.20	116	0.003	1.52	232.00	0.09	33.87	35.40
177	Cox's bazar	Sadar	South Hajeepara Food Godawn Road	422245161	1.20	91	0.003	1.20	182.00	0.07	26.57	27.77
178	Cox's bazar	Sadar	South Dikkul Road	422245165	1.30	71	0.002	1.01	142.00	0.06	20.73	21.74
179	Cox's bazar	Sadar	DC road to Chochalamura Road	422245279	0.50	108	0.003	0.59	216.00	0.09	31.54	32.13
180	Cox's bazar	Sadar	East Gomatali Bridge to Hafaz micher ghona road	422245233	1.00	101	0.003	1.11	202.00	0.08	29.49	30.60
181	Cox's bazar	Sadar	Mohammad Hossain house to Nurahmed house road	422245313	1.00	73	0.002	0.80	146.00	0.06	21.32	22.12
182	Cox's bazar	Sadar	BICSCk to Shikderpara Bridge	422245351	1.00	109	0.003	1.19	218.00	0.09	31.83	33.02

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183	Cox's bazar	Sadar	Nutun mohal Chara Battala to Rasterchara road	422245361	0.50	71	0.002	0.39	142.00	0.06	20.73	21.12
184	Cox's bazar	Sadar	Nutan mohal Bhangamura DC road to Nichana Road	422245362	1.00	108	0.003	1.18	216.00	0.09	31.54	32.72
185	Cox's bazar	Sadar	Battala primary school to chara batgach road	422245434	1.22	104	0.003	1.39	208.00	0.08	30.37	31.76
186	Cox's bazar	Sadar	Nuton office Bazaars to Jumnagar road	422245492	1.00	95	0.003	1.04	190.00	0.08	27.74	28.78
187	Cox's bazar	Sadar	X-military road to Khuruskul Chowfaldndi Connection Road via Chonkhola Bazaars Road	422245503	3.70	87	0.003	3.52	174.00	0.07	25.40	28.93
188	Cox's bazar	Teknaf	Lachu Prang Monu mia house to Kabir Hossaain house Road.	422904006	1.02	115	0.003	1.28	230.00	0.09	33.58	34.86

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189	Cox's bazar	Teknaf	South Shikdar para-Khurer mukh Beri Bandh road	422904029	1.20	120	0.004	1.58	240.00	0.10	35.04	36.62
190	Cox's bazar	Teknaf	teknaf to shah parir dwip wdb embankment	422904044	18.50	94	0.003	19.04	188.00	0.08	27.45	46.49
191	Cox's bazar	Teknaf	Nila-Moricha para Rd.	422905006	1.90	99	0.003	2.06	198.00	0.08	28.91	30.97
192	Cox's bazar	Teknaf	Shah parir dip-Uttar Para-Jalia Para road	422905033	1.05	98	0.003	1.13	196.00	0.08	28.62	29.74
193	Cox's bazar	Teknaf	Whykong Jalia Para Road	422905040	1.50	84	0.003	1.38	168.00	0.07	24.53	25.91
194	Cox's bazar	Teknaf	The Delu Member house to-H/O Mvi Abdul hassan road	422905042	1.69	119	0.004	2.20	238.00	0.10	34.75	36.95
195	Cox's bazar	Teknaf	Teknaf Lengurbil Drisinondon Road.	422905263	1.00	98	0.003	1.07	196.00	0.08	28.62	29.69

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196	Cox's bazar	Teknaf	Teknaf Jahalia para Road.	422905265	1.95	77	0.002	1.64	154.00	0.06	22.48	24.13
197	Cox's bazar	Ukhia	Battala Dosari Rd.	422944006	1.00	71	0.002	0.78	142.00	0.06	20.73	21.51
198	Cox's bazar	Ukhia	Ukhiya Darogabazar GC-Kutupalong R&H Road via Hatimura bazar.	422944008	1.00	88	0.003	0.96	176.00	0.07	25.70	26.66
199	Cox's bazar	Ukhia	Keachari-Sonarghona Rd.	422944018	2.50	116	0.003	3.18	232.00	0.09	33.87	37.05
200	Cox's bazar	Ukhia	Dighirpara Holodia Rd.	422944023	1.00	91	0.003	1.00	182.00	0.07	26.57	27.57
201	Cox's bazar	Ukhia	West holodia Rd.	422944025	1.00	113	0.003	1.24	226.00	0.09	33.00	34.23
202	Cox's bazar	Ukhia	Nalbania pry. school Rd.	422944032	1.00	98	0.003	1.07	196.00	0.08	28.62	29.69

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203	Cox's bazar	Ukhia	Rumka-Sabek Rumka pry. school Rd	422944044	1.00	98	0.003	1.07	196.00	0.08	28.62	29.69
204	Cox's bazar	Ukhia	R&H road (Kasiar bill)-Ratnapalong UP office road.	422944089	1.00	76	0.002	0.83	152.00	0.06	22.19	23.02
205	Cox's bazar	Ukhia	RHD Road Ajame Para Road	422944100	1.08	87	0.003	1.03	174.00	0.07	25.40	26.45
206	Cox's bazar	Ukhia	R&H Palong Garden Tali Para Abdul Hakim Jame Mosque road.	422944101	0.45	115	0.003	0.57	230.00	0.09	33.58	34.15
207	Cox's bazar	Ukhia	Typalong Deilpara Road	422945013	0.84	92	0.003	0.84	184.00	0.07	26.86	27.71
208	Cox's bazar	Ukhia	Kamariar bill Road	422945014	3.05	74	0.002	2.47	148.00	0.06	21.61	24.08
209	Cox's bazar	Ukhia	Maricha Ruhingha camp-Bet Office	422945016	2.27	126	0.004	3.13	252.00	0.10	36.79	39.92

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210	Cox's bazar	Ukhia	Yousuf Ali-Uttar pukuria Rd.	422945054	1.65	98	0.003	1.77	196.00	0.08	28.62	30.39
211	Cox's bazar	Ukhia	West Painnasia Road	422945055	1.12	126	0.004	1.55	252.00	0.10	36.79	38.34
212	Cox's bazar	Ukhia	Horinmara Hatirdera road.	422945070	1.10	71	0.002	0.86	142.00	0.06	20.73	21.59
213	Cox's bazar	Ukhia	Paglirbill saya khola road.	422945082	1.00	83	0.002	0.91	166.00	0.07	24.24	25.14
214	Cox's bazar	Ukhia	Pingercool - Bordda Cara Road	422945090	2.00	101	0.003	2.21	202.00	0.08	29.49	31.70
215	Cox's bazar	Ukhia	R &H Road Muharipara-Mohammad Ali vita Anshar Ali bari Road	422945107	1.21	122	0.004	1.61	244.00	0.10	35.62	37.23
216	Cox's bazar	Ukhia	Chillercara Peyadachi Barua bar-Dakhin Maskaria Road	422945110	1.01	92	0.003	1.02	184.00	0.07	26.86	27.88

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217	Cox's bazar	Ukhia	Ukhiya Cantal Jami Mosque-Molovi para Road	422945116	0.52	78	0.002	0.44	156.00	0.06	22.78	23.22
218	Cox's bazar	Ukhia	Lambagona Abdur Rahim bari - Hatimura Bazar	422945118	1.89	84	0.003	1.74	168.00	0.07	24.53	26.27
219	Cox's bazar	Ukhia	Hatimura Bazar-Azukhaiya LGED Road Via Fish Project.	422945122	2.43	74	0.002	1.96	148.00	0.06	21.61	23.57
220	Cox's bazar	Ukhia	RHD Alipore Road West-Diglia Rubber Dam Connecting Road	422945123	1.25	97	0.003	1.33	194.00	0.08	28.32	29.65
					334.388			**1300.68**			**16762.26**	**18062.9**

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
জেলা প্রশাসকের কার্যালয়, কক্সবাজার
সাধারণ শাখা
www.coxsbazar.gov.bd

জেলা উন্নয়ন সমন্বয় কমিটির জানুয়ারি ২০২২ মাসের সভার কার্যবিবরণী

সভাপতি ঃ মোঃ মামুনুর রশীদ
জেলা প্রশাসক, কক্সবাজার
সভার তারিখ ও সময় ঃ ১৬ জানুয়ারি ২০২২ খ্রিষ্টাব্দ, সকাল: ১০.৩০ টা
স্থান ঃ Zoom Cloud Meeting
উপস্থিতি ঃ Zoom Cloud Meeting প্ল্যাটফর্মে সংযুক্ত সদস্যবৃন্দ

সভাপতি দেশের চলমান করোনা ভাইরাস পরিস্থিতিতে Zoom Cloud Meeting প্ল্যাটফর্মের মাধ্যমে জেলা উন্নয়ন সমন্বয় সভায় সংযুক্ত হওয়ার জন্য সকল সদস্যকে ধন্যবাদ জানিয়ে সভার কাজ শুরু করেন। অতঃপর সভাপতির অনুমোদনক্রমে অতিরিক্ত জেলা প্রশাসক (সার্বিক), কক্সবাজার কর্তৃক বিগত সভার কার্যবিবরণীর সিদ্ধান্তসমূহ সভায় পাঠ করে শুনানো হলে কোন সংশোধনী না থাকায় তা সর্বসম্মতিক্রমে দৃঢ়ীকরণ করা হয়।

আলোচনাপর্বে আলোচ্যসূচি অনুযায়ী বিগত সভায় গৃহীত সিদ্ধান্তসমূহের বাস্তবায়ন অগ্রগতি, বিভিন্ন দপ্তর হতে প্রাপ্ত কার্যপত্রসমূহ পর্যালোচনা এবং উপস্থিত দপ্তর প্রধানদের নিজ নিজ দপ্তরের চলতি অর্থ বছরে গৃহীত উন্নয়ন প্রকল্পসমূহের বাস্তবায়ন অগ্রগতি ও পরবর্তী করণীয় বিষয়ে বিস্তারিত আলোচনা করা হয়। বিস্তারিত আলোচনান্তে বিভাগ ভিত্তিক নিম্নরূপ আলোচনা ও সিদ্ধান্তসমূহ গৃহীত হয়:

<table>
<tr><th>ক্রমিক</th><th>আলোচ্য বিষয়</th><th>গৃহীত সিদ্ধান্ত</th><th>বাস্তবায়নে</th></tr>
<tr><td>০১</td><td colspan="3">বিদ্যুৎ উন্নয়ন বোর্ড ও পল্লী বিদ্যুৎ সমিতি, কক্সবাজার</td></tr>
<tr><td></td><td>ক) কক্সবাজার জেলায় বিদ্যুৎ লাইন নির্মাণ
বাৎসরিক উন্নয়ন কর্মসূচীর আওতায় ২০২১-২২ অর্থ বৎসরে কক্সবাজার পল্লী বিদ্যুৎ সমিতির লাইন নির্মাণ সংক্রান্ত লক্ষ্যমাত্রা ১৩৪ কি: মি: এর বিপরীতে ডিসেম্বর/২১ মাসের লাইন নির্মাণের অগ্রগতি ১৩.০০ কি: মি:। চলতি অর্থ বছরের (২০২১-২২) নতুন লাইন নির্মাণের মোট অগ্রগতি ৯০ কি: মি:। বিদ্যুৎ লাইন সম্প্রসারণের লক্ষ্যমাত্রার বিপরীতে ডিসেম্বর/২১ পর্যন্ত অগ্রগতি নিম্নরূপ:
<table>
<tr><th>প্রতিষ্ঠান</th><th>নভেম্বর ২০২১ খ্রি.</th><th>ডিসেম্বর ২০২১ খ্রি.</th></tr>
<tr><td>পল্লী বিদ্যুৎ, সমিতি</td><td>৭৭ কি.মি.</td><td>৯০ কি.মি.</td></tr>
</table></td><td>ক) (i) লক্ষ্যমাত্রা নির্ধারণ করে বিদ্যুৎ লাইন সম্প্রসারণ কাজ সমাপ্ত করতে হবে এবং জেলায় শতভাগ বিদ্যুতায়ন বাস্তবায়ন নিশ্চিত করতে হবে।
(ii) ২০২১-২২ অর্থ বছরে লক্ষ্যমাত্রা পাওয়ার সাথে সাথেই কার্যক্রম শুরু করতে হবে।</td><td>ক) নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার ও জিএম, পল্লী বিদ্যুৎ সমিতি, কক্সবাজার</td></tr>
<tr><td></td><td>খ) অবৈধ বিদ্যুৎ সংযোগ বিচ্ছিন্ন করণ সংক্রান্ত
পল্লী বিদ্যুৎ সমিতি ও বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার কর্তৃক অবৈধ বিদ্যুৎ সংযোগ বিচ্ছিন্নকরণ কার্যক্রম নিম্নরূপঃ
<table>
<tr><th>প্রতিষ্ঠান</th><th>নভেম্বর ২০২১ খ্রি.</th><th>ডিসেম্বর ২০২১ খ্রি.</th></tr>
<tr><td>পল্লী বিদ্যুৎ সমিতি</td><td>৭৬ জনের নিকট হতে ১৪,৮৫,০৮২/- টাকা ক্ষতিপূরণ বিল আদায় করা হয়। নভেম্বর ২০২১ মাসে ১১৬ টি অভিযান পরিচালনা করা হয়েছে।</td><td>৫৩ জনের নিকট হতে ৭,২৭,৬৪৬/- টাকা ক্ষতি পূরণ বিল আদায় করা হয়। ডিসেম্বর ২০২১ মাসে ৪৫টি অভিযান পরিচালনা করা হয়েছে।</td></tr>
<tr><td>পিডিবি</td><td>০২ টি হিসাবের বিপরীতে ৯৩,২৪৪/- টাকা জরিমানা করা হয়েছে।</td><td>০৩ টি হিসাবের বিপরীতে ১,১৫,৩৩৮/-টাকা জরিমানা করা হয়েছে।</td></tr>
</table></td><td>খ) (i) অবৈধ বিদ্যুৎ সংযোগ বিচ্ছিন্ন করার কার্যক্রম অব্যাহত রাখতে হবে এবং প্রত্যেক মাসে কতটি অবৈধ বিদ্যুৎ সংযোগ বিচ্ছিন্ন করা হয়েছে তার অগ্রগতি প্রতিবেদন পরপর্তী সভার পূর্বে অবহিত করতে হবে।
(ii) পাহাড়সহ খাস জমিতে অবৈধভাবে বসবাসকারীদের বিদ্যুৎ সংযোগ বিচ্ছিন্ন করতে হবে এবং নতুন সংযোগ প্রদান করা যাবে না।</td><td>খ) নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার ও জিএম, পল্লী বিদ্যুৎ সমিতি, কক্সবাজার</td></tr>
<tr><td></td><td>গ) বকেয়া বিদ্যুৎ বিল সংক্রান্ত:
নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড ও জিএম, পল্লী বিদ্যুৎসমিতি, কক্সবাজার কর্তৃক প্রদত্ত বকেয়া বিদ্যুৎ বিল এর চিত্র নিম্নরূপ:
<table>
<tr><th>প্রতিষ্ঠান/ বিভাগ</th><th>নভেম্বর ২০২১ খ্রি.</th><th>ডিসেম্বর ২০২১ খ্রি.</th></tr>
<tr><td>পল্লী বিদ্যুৎ সমিতি</td><td>২,৪৫,৪৩,৫২০/-</td><td>২,৪৮,৭১,৬৬৩/-</td></tr>
<tr><td>পিডিবি</td><td>১৪,৪৬,৩৬৪/-</td><td>১৫,১০,৩৮৫/-</td></tr>
</table></td><td>গ) (i) কক্সবাজার জেলাধীন সকল সরকারি, আধা-সরকারি, স্বায়ত্তশাসিত প্রতিষ্ঠানের বকেয়া বিদ্যুৎ বিল পরিশোধ এর লক্ষ্যে সংশ্লিষ্ট বিভাগের প্রধানগণ প্রচেষ্টা অব্যাহত রাখবেন।</td><td>গ) (i) উপ-পরিচালক, স্থানীয় সরকার, কক্সবাজার</td></tr>
</table>

	ঘ) কুতুবদিয়া উপজেলায় সাবমেরিন ক্যাবলের মাধ্যমে বিদ্যুৎ সরবরাহ কক্সবাজার জেলার কুতুবদিয়া উপজেলায় সাব মেরিন ক্যাবলের মাধ্যমে শতভাগ বিদ্যুতায়ন কাজের জন্য মালামাল সাইটে পৌঁছেছে এবং ১১/০.৪ কেভি লাইন নির্মাণের কাজ চলছে। সাবমেরিন ক্যাবেল স্থাপন সংক্রান্ত প্রকল্পের কাজ সরকারি ক্রয় সংক্রান্ত মন্ত্রিসভা কমিটি (সিসিজিপি) তে অনুমোদনের জন্য পাঠানো হয়েছে।	ঘ) নির্ধারিত সময়ের মধ্যে কুতুবদিয়া উপজেলায় সাবমেরিন ক্যাবলের মাধ্যমে বিদ্যুৎ সরবরাহের প্রয়োজনীয় ব্যবস্থা গ্রহণ করতে হবে। এ বিষয়ে আগামী সভার পূর্বে অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে।	ঘ) নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার
	ঙ) সেন্টমার্টিন দ্বীপে সোলার স্থাপনের মাধ্যমে বিদ্যুৎ সরবরাহ সেন্টমার্টিন দ্বীপে সোলার স্থাপনের নিমিত্ত প্রয়োজনীয় জমি অধিগ্রহণ এর সম্ভাব্যতা যাচাইয়ের জন্য সহকারী কমিশনার (ভূমি) সহ সংশ্লিষ্ট কর্মকর্তাগণ সেন্টমার্টিনস্থ ভূমি পরিদর্শন করেছেন। সম্ভাব্যতা যাচাইয়ের রিপোর্ট পাওয়া যায়নি মর্মে নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড সভাকে অবহিত করেন।	ঙ) সেন্টমার্টিন দ্বীপে সোলার স্থাপনের মাধ্যমে বিদ্যুৎ সরবরাহের বিষয়ে জরুরি ভিত্তিতে ব্যবস্থা গ্রহণ করতে হবে। জমি অধিগ্রহণের সম্ভাব্যতা যাচাইয়ের রিপোর্ট প্রদানের বিষয়ে উপজেলা নির্বাহী অফিসার, টেকনাফ এর সাথে যোগাযোগ করে দ্রুত ব্যবস্থা গ্রহণ করতে হবে। অগ্রগতি প্রতিবেদন আগামী সভার পূর্বে অবহিত করবেন।	ঙ) (১) উপজেলা নির্বাহী অফিসার, টেকনাফ, কক্সবাজার (২) নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার
	চ) রাস্তার পাশের বৈদ্যুতিক খুঁটি অপসারণ সংক্রান্ত নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড জানান, কক্সবাজার-চট্টগ্রাম সড়ক ৬ লাইনে উন্নীত করার স্বার্থে বিদ্যুৎ উন্নয়ন বোর্ড কর্তৃক রাস্তার পার্শ্বের বৈদ্যুতিক খুঁটি অপসারণের কার্যক্রম ৯৩% সম্পন্ন হয়েছে। কক্সবাজার পৌরসভার আওতায় বৈদ্যুতিক খুঁটি অপসারণের কাজ মেয়রের সাথে সমন্বয় করে সম্পন্ন করা হবে।	চ) নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড ও জিএম, পল্লী বিদ্যুৎ সমিতি, কক্সবাজার-চট্টগ্রাম ও কক্সবাজার-টেকনাফ সড়কের পাশের বৈদ্যুতিক খুঁটি অপসারণের প্রয়োজনীয় ব্যবস্থা গ্রহণ করবেন। বৈদ্যুতিক খুঁটি অপসারণের আগে বিদ্যুৎ সংযোগ বন্ধের বিষয়টি স্থানীয়ভাবে প্রচার করতে হবে।	চ)নির্বাহী প্রকৌশলী, বিদ্যুৎ উন্নয়ন বোর্ড, কক্সবাজার ও জি এম, পল্লী বিদ্যুৎ সমিতি, কক্সবাজার
০২	স্বাস্থ্য বিভাগ, কক্সবাজার		
	ক) কোভিড-১৯ পরিস্থিতি মোকাবেলা সংক্রান্ত সিভিল সার্জন, কক্সবাজার জানান যে, ১২-১৮ বছর বয়সী ছাত্র/ছাত্রীদের ভ্যাকসিন প্রদান কার্যক্রম সম্পর্কে কক্সবাজার জেলায় টার্গেট ছিল ২৮২০৪০ জন এবং টিকা প্রদান করা হয়েছে ভাইজেস্টার ২৫৬৩৫২ জনকে যা সফলতার হার ৯৯.১%। করোনার উপসর্গ দেখা দিলে দ্রুত কোভিড টেস্ট করা, সার্বক্ষণিক মাস্ক পরিধান ও স্বাস্থ্যবিধি প্রতিপালন বিষয়ে জনসাধারণকে সচেতন করা আবশ্যক।	ক) (১) কোভিড-১৯ সংক্রমণ প্রতিরোধে সকলকে সরকারি নির্দেশনা যথাযথভাবে প্রতিপালন করতে হবে এবং সকলকে জরুরীভিত্তিতে টিকা প্রদান কার্যক্রমের আওতায় আনতে হবে। (২) ছাত্র-ছাত্রীদের টিকা প্রদানের প্রয়োজনীয় ব্যবস্থা গ্রহণ করতে হবে।	সিভিল সার্জন, কক্সবাজার
	খ) ২০২১-২০২২ অর্থ বছরে জিওবি মেরামত ও সংস্কার সংক্রান্ত ২০২১-২০২২ অর্থ বছরে জিওবি মেরামত ও সংস্কার কাজ ব্যবহারকারী কর্তৃপক্ষের প্রাধিকার, তালিকা যথাযথ কর্তৃপক্ষের মাধ্যমে মন্ত্রণালয়ে প্রেরণ করা হয়েছে। স্বাস্থ্য শিক্ষা বিভাগের মেরামত কাজের প্রাক্কলন মন্ত্রণালয় কর্তৃক অনুমোদিত হয়েছে। বর্তমানে দরপত্র প্রস্তুত করেন।	খ) ২০২১-২০২২ ইং অর্থ বছরে জিওবি মেরামত ও সংস্কার কাজ ব্যবহারকারী দ্রুততার সাথে সম্পন্ন করতে হবে এবং অগ্রগতি বিষয়ক প্রতিবেদন আগামী সভার পূর্বে দাখিল করবেন।	ক) নির্বাহী প্রকৌশলী, স্বাস্থ্য প্রকৌশল অধিদপ্তর, কক্সবাজার
	গ) চকরিয়া উপজেলার বড়ইতলী ইউনিয়নে আরটিসি স্থাপন গত ০২/১১/২০২১ ইং তারিখে জেলা প্রশাসকের কার্যালয় হতে ভূমি অধিগ্রহনের অনুমোদন/সুপারিশ পাওয়া গেছে এবং বর্তমানে মন্ত্রণালয়ে অনুমোদন প্রক্রিয়াধীন। প্রকল্পের Test Pile/Load Test এর কাজ চলমান মর্মে নির্বাহী প্রকৌশলী, স্বাস্থ্য প্রকৌশল অধিদপ্তর, কক্সবাজার জানান।	গ) চকরিয়া উপজেলার বড়ইতলী এলাকায় স্বাস্থ্য বিভাগের আরটিসি সেন্টার নির্মাণ কার্যক্রম দ্রুততার সাথে সম্পন্ন করতে হবে এবং অগ্রগতি বিষয়ক প্রতিবেদন আগামী সভার পূর্বে দাখিল করবেন	গ) নির্বাহী প্রকৌশলী, স্বাস্থ্য প্রকৌশল অধিদপ্তর, কক্সবাজার
০৩	সড়ক ও জনপথ বিভাগ, কক্সবাজার		
	ক) মাতামুহুরী নদীর উপর ৬ লেন বিশিষ্ট ব্রিজ নির্মাণ প্রকল্প কোভিড-১৯ এর কারণে শ্রমিকের স্বল্পতার জন্য কাজের গতি কিছুটা কম ছিল। বর্তমানে কাজের অগ্রগতি সন্তোষজনক। ইতোমধ্যে ব্রিজের ৩ লেন গাড়ি চলাচলের জন্য উন্মুক্ত করা হয়েছে। বাকি ৩ লেনের কাজ পরবর্তীতে সম্পন্ন করা হবে মর্মে সড়ক ও জনপথ বিভাগ, কক্সবাজার এর নির্বাহী প্রকৌশলী সভাকে জানান।	ক) মাতামুহুরী নদীর উপর ৬ লেন বিশিষ্ট নির্মাণাধীন ব্রিজটি জনগুরুত্বপূর্ণ বিধায় প্রকল্প পরিচালকের সাথে সমন্বয় করে নির্ধারিত সময়ের মধ্যে ব্রিজের নির্মাণ কাজ সম্পন্ন করার প্রয়োজনীয় ব্যবস্থা গ্রহণ করতে হবে এবং আগামী সভার পূর্বে ব্রিজ নির্মাণের অগ্রগতি শতকরা হিসেবে অবহিত করতে হবে।	ক)নির্বাহী প্রকৌশলী, সড়ক ও জনপথ বিভাগ, কক্সবাজার
	খ) লাবনী থেকে লিংক রোড পর্যন্ত ৪ লেনের সড়ক নির্মাণ লাবনী থেকে লিংক রোড পর্যন্ত ৪ লেনের সড়ক নির্মাণের কাজ নির্ধারিত সময়ের মধ্যে সম্পন্ন করা হবে এবং দ্রুত যান চলাচলের উপযোগী করা হবে মর্মে, নির্বাহী প্রকৌশলী, সড়ক ও জনপথ বিভাগ, কক্সবাজার সভাকে অবহিত করেন।	খ) লাবনী থেকে লিংক রোড পর্যন্ত ৪ লেনের সড়ক নির্মাণের কাজ নির্ধারিত সময়ের মধ্যে সম্পন্ন করতে হবে। আগামী সভার পূর্বে অগ্রগতি শতকরা হিসেবে অবহিত করতে হবে।	খ)নির্বাহী প্রকৌশলী, সড়ক ও জনপথ বিভাগ, কক্সবাজার

০৭	মহেশখালী (উপজেলা পরিষদের বিপরীত পার্শ্বে, উপজেলা পরিষদ এলাকা, মহেশখালী)	অস্থায়ী মসজিদ নির্মাণ সমাপ্ত। নির্মাণ সাইটের উপরিস্থিত পুরাতন মসজিদ ও সরকারি অফিসার্স ডরমিটরিসহ সমস্ত স্থাপনা অপসারণ করে সাইটি বুঝে পাওয়া সাপেক্ষে নির্মাণ কাজ শুরু করা হবে।		(ii) নির্বাহী প্রকৌশলী, গণপূর্ত বিভাগ, কক্সবাজার ও (iii) উপ পরিচালক, ইসলামিক ফাউন্ডেশন কক্সবাজার
০৮	উখিয়া(মরিচ্যা বাজার ষ্টেশন)	উখিয়া : অস্থায়ী মসজিদ নির্মাণ কাজ সম্পন্ন। নির্মাণ সাইটের উপরিস্থিত পুরাতন মসজিদ ও সরকারি অফিসার্স ডরমিটরিসহ সমস্ত স্থাপনা অপসারণ করে সাইটি বুঝে পাওয়া সাপেক্ষে নির্মাণ কাজ শুরু করা হবে		
০৯	টেকনাফ (টেকনাফ পৌরসভা সংলগ্ন)	নীচ তলার কলাম ঢালাই সম্পন্ন		

উপ-পরিচালক, ইসলামিক ফাউন্ডেশন, কক্সবাজার সভাকে অবহিত করেন যে, কুতুবদিয়া মডেল মসজিদের জমির বিষয়ে কাগজপত্রাদি যেভাবে প্রস্তাব প্রেরণের অর্থাৎ দাগ ও খতিয়ান নম্বর এবং মসজিদটি কতটুকু এরিয়া জুড়ে আছে তা যথাযথ বাস্তবায়ন করা হয়নি। মডেল মসজিদের জমির বিষয়ে যথাযথ কাগজপত্রাদি সংযুক্ত করে পুনরায় পূর্ণাঙ্গ প্রস্তাব প্রেরণের জন্য উপজেলা নির্বাহী অফিসার, কুতুবদিয়াকে প্রেরণ করা হয়েছে।

সভাপতি, কুতুবদিয়া মডেল মসজিদের জমির বিষয়ে কাগজপত্রাদি দ্রুত অনুমোদনের বিষয়ে কার্যকরী ব্যবস্থা গ্রহণের জন্য উপ-পরিচালক, ইসলামিক ফাউন্ডেশন, কক্সবাজারকে অনুরোধ করেন।

০৫	**স্থানীয় সরকার প্রকৌশল বিভাগ (এলজিইডি), কক্সবাজার**		
	ক) গ্রামীণ সড়ক মেরামত/সংরক্ষণ ২০২১-২২ অর্থ বছরের অর্থ বরাদ্দ পাওয়া গেছে। প্রাক্কলন অনুমোদনের কাজ প্রক্রিয়াধীন মর্মে নির্বাহী প্রকৌশলী জানান।	ক) গ্রামীণ সড়ক মেরামত/সংরক্ষণ প্রকল্পের কাজ যথাসময়ে শুরু করতে হবে। আগামী সভার পূর্বে অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে।	ক) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	খ) স্থানীয় সরকার প্রকৌশল অধিদপ্তর কর্তৃক বাস্তবায়নাধীন প্রকল্প: বিভিন্ন প্রকল্পের আওতায় বর্তমানে সড়ক ৯২.০০ কিঃমিঃ, ব্রীজ কালভার্ট ১৪৯৯ মিঃ কাজ চলমান আছে।	খ) স্থানীয় সরকার প্রকৌশল অধিদপ্তরের বাস্তবায়নাধীন প্রকল্পের কাজ গুণগত মান বজায় রেখে নির্ধারিত সময়ের মধ্যে সম্পন্ন করতে হবে। আগামী সভার পূর্বে অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে।	খ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	গ) বিমান বন্দর সংলগ্ন (বাকখালী নদীর উপর) খুরুশকুল ব্রিজ এবং সংযোগ সড়ক নির্মাণ: এলজিইডি কর্তৃক ব্রিজ নির্মাণের সাইট নবনিযুক্ত ঠিকাদারকে হস্তান্তর করা হয়েছে। ভূমি অধিগ্রহণের বিষয়টি প্রক্রিয়াধীন। বর্তমানে প্রকল্পের কাজ পুরোদমে চলমান রয়েছে। কাজের অগ্রগতি সন্তোষজনক মর্মে সভাকে অবহিত করা হয়।	গ) কক্সবাজার বিমানবন্দর সংলগ্ন খুরুশকুল ব্রিজের নির্মাণ কাজ গুণগত মান বজায় রেখে নির্ধারিত সময়ের মধ্যে সম্পন্ন করতে হবে। আগামী সভার পূর্বে অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে।	গ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	ঘ) উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স নির্মাণ প্রকল্প: নির্বাহী প্রকৌশলী, স্থানীয় সরকার প্রকৌশল অধিদপ্তর, কক্সবাজার জানান, টেকনাফ ও মহেশখালী উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স ভবন হস্তান্তর করা হয়েছে। রামু উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স ভবনের কাজ চলমান। যার গড় অগ্রগতি ৮০%। উখিয়া উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স ভবন নির্মাণ কাজ প্রায় শেষ পর্যায়ে। চকরিয়া উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স ভবনের বিষয়ে মন্ত্রণালয় হতে অনুমোদন পাওয়া গেছে।	ঘ) নির্ধারিত সময়ের মধ্যে উপজেলা মুক্তিযোদ্ধা কমপ্লেক্স ভবন নির্মাণ সংক্রান্ত কাজ বাস্তবায়ন করতে হবে। এ সংক্রান্ত অগ্রগতি আগামী সভার পূর্বে অবহিত করবেন।	ঘ. নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	ঙ) "গ্রামীণ অবকাঠামোর উন্নয়ন প্রকল্প": নির্বাহী প্রকৌশলী, স্থানীয় সরকার প্রকৌশল অধিদপ্তর, কক্সবাজার জানান, পর্যটন জেলা কক্সবাজার এর আর্থ সামাজিক উন্নয়নের লক্ষ্যে জেলার মাননীয় সংসদ সদস্যগণের অনুরোধে জেলাধীন ০৯(নয়)টি উপজেলার জন্য সম্পূর্ণ জিওবি'র অর্থায়নে ৭২০.০০ কোটি টাকার ব্যয়ে "গ্রামীণ অবকাঠামোর উন্নয়ন প্রকল্প" শীর্ষক একটি প্রকল্প প্রস্তাব করা হয়েছে। ফেব্রুয়ারি ২০২২ থেকে জুন ২০২৫ মেয়াদে বাস্তবায়নের লক্ষ্যে প্রস্তাবিত প্রকল্পটি স্থানীয় সরকার বিভাগ থেকে পরিকল্পনা কমিশনে প্রেরণ করা হয়েছে। এই প্রকল্পের মাধ্যমে কক্সবাজার জেলায় ১১.৩০ কি:মি: উপজেলা সড়ক উন্নয়ন, ৫৩.৫৩ কি:মি: ইউনিয়ন সড়ক উন্নয়ন, ১৭৪.৮৯ কিমি: গ্রাম সড়ক উন্নয়ন, ৭০.০০ কি:মি: সড়ক পুর্নবাসন, ৮৬১ মি: (২৩টি) ব্রীজ নির্মাণ, ৯১৪.৫০ মি:(৩৯১টি) কালভার্ট নির্মাণ, ৫টি গ্রামীণ বাজার উন্নয়ন এবং ৫টি হাট নির্মাণ করা হবে। জেলার গ্রামীণ অবকাঠামো উন্নয়নের স্বার্থে প্রকল্পটি দ্রুত অনুমোদনের প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য সভার সদস্যগণ অনুরোধ করেন।	ঙ) কক্সবাজার জেলার "গ্রামীণ অবকাঠামোর উন্নয়ন প্রকল্প" শীর্ষক প্রকল্পটি দ্রুত অনুমোদন ও যথাযথভাবে বাস্তবায়নের প্রয়োজনীয় উদ্যোগ গ্রহণ করতে হবে। এ সংক্রান্ত অগ্রগতি আগামী সভার পূর্বে অবহিত করবেন।	ঙ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	চ) সমগ্র দেশে শহর ও ইউনিয়ন ভূমি অফিস নির্মাণ প্রকল্প উপজেলা পর্যায়ে ১৬ টি ভূমি অফিস নির্মাণ কাজের অনুমোদন পাওয়া গেছে। ৭টির কাজ সমাপ্ত। ০৯ টির নির্মাণ কাজ চলমান রয়েছে। যার গড় অগ্রগতি ৯২%।	চ) (১) নির্ধারিত সময়ের মধ্যে গুণগত মান বজায় রেখে প্রকল্পের কাজ সমাপ্ত করতে হবে এবং কাজের অগ্রগতি আগামী সভার পূর্বে অবহিত করবেন।	চ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার,

		(২) কাজের গুণগত মান বজায় রাখার স্বার্থে সংশ্লিষ্ট উপজেলা নির্বাহী অফিসারগণ ইউনিয়ন ভূমি অফিস ও উপজেলা পরিষদ কমপ্লেক্স ভবন নির্মাণ কাজ পরিদর্শন করে প্রতিবেদন দিবেন।	(২) সংশ্লিষ্ট উপজেলা নির্বাহী অফিসার, কক্সবাজার
	চ) বহুমুখী দুর্যোগ ব্যবস্থাপনা আশ্রয়ন প্রকল্প (MDSP): বহুমুখী দুর্যোগ ব্যবস্থাপনা আশ্রয়ণ প্রকল্পের আওতায় কক্সবাজার জেলায় মোট- ৬২টি স্থল কাম সাইক্লোন শেল্টার অনুমোদন পাওয়া গেছে। উক্ত অনুমোদনপ্রাপ্ত সাইক্লোন শেল্টার এর কাজ চলমান রয়েছে। কাজের গড় অগ্রগতি ৮৮%।	চ) বহুমুখী দুর্যোগ ব্যবস্থাপনা প্রকল্পের কাজ নির্ধারিত সময়ের মধ্যে সম্পন্ন করতে হবে এবং কাজের অগ্রগতি আগামী সভার পূর্বে অবহিত করতে হবে।	চ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার।
	ছ) শহিদ এটিএম জাফর আলম মাল্টিডিসিপ্লিন একাডেমি, রামু থেকে মেরিন ড্রাইভ সংযোগ সড়ক নির্মাণ সংক্রান্ত শহিদ এটিএম জাফর আলম মাল্টিডিসিপ্লিন একাডেমি রামু হতে মেরিন ড্রাইভ সংযোগ সড়কটি উন্নয়নের জন্য ১.০০ কি.মি. দরপত্র আহবান করে ঠিকাদার নির্বাচন করা হয়েছে এবং অবশিষ্ট ৫.০০ কি.মি. সড়ক বিশ্বব্যাংকের অর্থায়নে EMCRP প্রকল্পে কাজের ডিপিপিভূক্ত করার জন্য প্রস্তাব প্রেরণ করা হয়েছে, যা সম্প্রতি ECNEC কর্তৃক অনুমোদিত হয়েছে।	ছ) শহিদ এটিএম জাফর আলম মাল্টিডিসিপ্লিন একাডেমি, রামু থেকে মেরিন ড্রাইভ সংযোগ সড়কের নির্মাণ কাজ দ্রুত শেষ করার জন্য নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার প্রয়োজনীয় ব্যবস্থা গ্রহণ করবেন এবং কাজের অগ্রগতি সম্পর্কে আগামী সভার পূর্বে অবহিত করবেন।	ছ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	জ) বাকঁখালী রাবার ড্যাম মেরামত সংক্রান্ত বাকঁখালী রাবার ড্যাম পুনঃনির্মাণের জন্য এলজিইডি সদর দপ্তর হতে যোগাযোগ করায় এশিয়া উন্নয়ন ব্যাংক (এডিবি) তা পুনঃবাস্তবায়নের জন্য সম্মত হয়েছে। বর্তমানে PRA সার্ভে এবং Soil test কাজ সম্পন্ন হয়েছে। সভাপতি নির্বাহী প্রকৌশলী, স্থানীয় সরকার প্রকৌশল বিভাগ, কক্সবাজার এর দৃষ্টি আকর্ষণ করে বলেন, রাবার ড্যামটি আগামী সেচ মৌসুম শুরুর আগে প্রয়োজনীয় মেরামত/পুনঃবাস্তবায়ন করা না গেলে স্থানীয় কৃষকের চরম ক্ষতি সাধিত হবে। তাই তিনি আগামী সেচ মৌসুম শুরুর পূর্বেই যাতে রাবার ড্যামটি মেরামত/পুনঃবাস্তবায়ন করা হয় সেজন্য দ্রুত ব্যবস্থা নিতে নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজারকে বিশেষভাবে অনুরোধ করেন।	জ) আগামী সেচ মৌসুম শুরুর পূর্বেই রাবার ড্যাম মেরামত/পুনঃনির্মাণের প্রয়োজনীয় ব্যবস্থা গ্রহণ করতে হবে।	জ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
	ঝ) কোট বাজার-সোনার পাড়া রাস্তা সংস্কার নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার, জানান যে, কোটবাজার-সোনার পাড়া রাস্তা সংস্কারের কাজ চলমান রয়েছে। কাজের অগ্রগতি ২০%	ঝ) কোট বাজার-সোনার পাড়া রাস্তার সংস্কার কাজ গুণগত মান বজায় রেখে নির্ধারিত সময়ের মধ্যে সম্পন্ন করতে হবে।	ঝ) নির্বাহী প্রকৌশলী, এলজিইডি, কক্সবাজার
০৬	কক্সবাজার পৌরসভা		
	ক) যানজট নিরসন সংক্রান্ত মেয়র, কক্সবাজার পৌরসভা জানান যে, কক্সবাজার শহরকে যানজট মুক্ত রাখার লক্ষ্যে পৌর এলাকায় অবৈধ টমটম চলাচল বন্ধের প্রচেষ্টা অব্যাহত রয়েছে।	খ) কক্সবাজার শহরকে যানজটমুক্ত রাখার লক্ষ্যে অবৈধ টমটম চলাচল বন্ধের জন্য প্রচেষ্টা অব্যাহত রাখতে হবে।	খ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
	খ) উন্নত বর্জ্য ব্যবস্থাপনার লক্ষ্যে ডাম্পিং গ্রাউন্ড নির্মাণ প্রকল্প মেয়র, কক্সবাজার পৌরসভা জানান যে, (i) ডাম্পিং গ্রাউন্ড প্রকল্পের বিষয়টি জেলা প্রশাসনের সাথে সমন্বয় করে প্রয়োজনীয় ব্যবস্থা গ্রহণ করা হবে। (ii) বর্জ্য ব্যবস্থাপনার বিষয়ে পরিবেশ অধিদপ্তরের সাথে আলোচনাক্রমে প্রয়োজনীয় ব্যবস্থা গ্রহণ করা হবে।	ক) বর্জ্য ব্যবস্থাপনার বিষয়ে মেয়র, কক্সবাজার পৌরসভা ও পরিবেশ অধিদপ্তর, কক্সবাজার আলোচনার মাধ্যমে সমন্বিত ব্যবস্থা গ্রহণ করবেন এবং আগামী সভার পূর্বে ডাম্পিং গ্রাউন্ড প্রকল্পের অগ্রগতি সম্পর্কে অবহিত করবেন।	ক) (১) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার ২) উপ-পরিচালক, পরিবেশ অধিদপ্তর, কক্সবাজার
	গ) কক্সবাজার পৌরসভা রাস্তাসমূহ যান চলাচল উপযোগীকরণ মেয়র, কক্সবাজার পৌরসভা জানান যে, (i) কক্সবাজার পৌর এলাকার রাস্তাসমূহ যান চলাচলের উপযোগী করার লক্ষ্যে রাস্তার সংস্কার কাজ চলমান রয়েছে এবং ড্রেন পরিষ্কার কার্যক্রম চলমান। (ii) বিটিসিএল এর ক্ষতির ব্যাপারে সংশ্লিষ্টদের সাথে সভা করা হয়েছে এবং ক্ষতির বিষয়ে যৌথ সার্ভে করে ক্ষতির পরিমাণ নির্ধারণ সাপেক্ষে প্রয়োজনীয় ব্যবস্থা গ্রহণ করা হবে।	গ)(i) কক্সবাজার পৌর এলাকার রাস্তা সমূহ যান চলাচলের উপযোগী করার জন্য স্থানীয় সরকার মন্ত্রণালয় থেকে প্রাপ্ত বরাদ্দ মোতাবেক দ্রুত সংস্কার কাজ ও ড্রেনসমূহ পরিচ্ছন্নকরণ সম্পন্ন করতে হবে। (ii) মেয়র, পৌরসভা এবং সহকারী বিভাগীয় প্রকৌশলী, টেলিকম, বিটিসিএল সমন্বয় করে বিটিসিএল এর ক্ষতির ব্যাপারে প্রয়োজনীয় ব্যবস্থা গ্রহণ করবেন এবং আগামী সভার পূর্বে অবহিত করবেন।	গ)(i) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার (ii) সহকারী বিভাগীয় প্রকৌশলী, টেলিকম, বিটিসিএল, কক্সবাজার
	ঘ) UGIIP-III প্রকল্প সংক্রান্ত: UGIIP-III প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকায় ১১ টি প্রকল্পের মধ্যে ইতো মধ্যে ৩টি কাজ সম্পন্ন হয়েছে বাকী ৮টি প্রকল্পের কাজের অগ্রগতি ৫৯%।	ঘ) UGIIP-III প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকায় ১১ টি প্রকল্পের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন।	ঘ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার

	ঙ) UGIIP-III প্রকল্পের আওতায় বস্তি উন্নয়ন সংক্রান্ত: UGIIP-III প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকার ১০টি বস্তি উন্নয়ন কাজ চলমান রয়েছে। উক্ত প্রকল্পের কাজের অগ্রগতি ৬৭.৪০%।	ঙ) UGIIP-III প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকার ১০টি বস্তি উন্নয়ন কাজের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন।	ঙ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
	চ) MGSP প্রকল্প সংক্রান্ত: MGSP প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকার ৮টি রাস্তার উন্নয়ন কাজ চলমান। উক্ত প্রকল্পের কাজের অগ্রগতি ৭৪.১৩%।	চ) MGSP প্রকল্পের আওতায় কক্সবাজার পৌরসভার বিভিন্ন এলাকার ৮টি রাস্তার উন্নয়ন কাজের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন।	চ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
	ছ) কক্সবাজার পৌরসভার নিজস্ব তহবিলের আওতায় চলমান উন্নয়ন প্রকল্প কক্সবাজার পৌরসভার নিজস্ব তহবিলের আওতায় পৌরসভার বিভিন্ন ওয়ার্ডের ১১টি উন্নয়নমূলক কাজের মধ্যে ৮টি প্রকল্পের কাজ সম্পন্ন এবং ০৩টি প্রকল্পের কাজের অগ্রগতি ৫৬.০০%।	ছ) কক্সবাজার পৌরসভার নিজস্ব তহবিলের আওতায় পৌরসভার বিভিন্ন ওয়ার্ডের ১১টি উন্নয়নমূলক কাজের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন।	ছ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
	জ) সভাপতি বলেন, কক্সবাজার জেলা শহরের অভ্যন্তরীণ চলমান উন্নয়ন কার্যক্রমের অগ্রগতি এবং সমন্বয় বিষয়ে কক্সবাজার উন্নয়ন কর্তৃপক্ষ, কক্সবাজার পৌরসভা, সড়ক ও জনপথ বিভাগ, জনস্বাস্থ্য প্রকৌশল, বিদ্যুৎ বিভাগসহ একাধিক সরকারি বিভাগের সাথে বিগত ১৪/০২/২০২১, ১৬/০২/২০২১, ১৮/০২/২০২১, ১৯/০২/২০২১, ১৮/০৫/২০২১ ও ৩০/০৬/২০২১ তারিখে সভা অনুষ্ঠিত হয়। কিন্তু সভায় গৃহীত সিদ্ধান্তসমূহ বাস্তবায়িত না হওয়ার কারণে সাধারণ মানুষের চলাফেরা, যানবাহন চলাচলসহ নানাবিধ নাগরিক অসুবিধা দেখা দিয়েছে ও এলাকার জনসাধারণকে সীমাহীন দুর্ভোগ পোহাতে হচ্ছে। পাশাপাশি অতিসত্তর সার্কিট হাউস রাস্তা, বিয়াম ফাউন্ডেশন রাস্তা এবং নুনিয়াছড়া অর্থ্যাৎ বিআইডব্লিউটি ঘাটের রাস্তার সংস্কার কাজ সম্পন্ন করা প্রয়োজন। পর্যটন মৌসুমে আগত বিপুল সংখ্যক পর্যটক ও স্থানীয় নাগরিকগণের চলাচল নির্বিঘ্ন করতে দ্রুততম সময়ে সংস্কার কাজ সম্পন্ন করা প্রয়োজন। তিনি আরো বলেন সরকারের মাননীয় মন্ত্রী/সচিবসহ উর্ধ্বতন কর্মকর্তাবৃন্দ কক্সবাজার সফরকালে রাস্তা ঘাটের বর্তমান পরিস্থিতিতে ক্ষোভ প্রকাশ করেন থাকেন। অধিকন্তু, শহরবাসী ও ইউএন অর্গানাইজেশনসহ বিদেশী মানুষ শহরের এরূপ অবস্থা নিয়ে প্রায়শই অসন্তোষ প্রকাশ করেন। কক্সবাজার পৌরসভার উন্নয়ন প্রকল্পসমূহ ডিসেম্বর ২০২১ এর পূর্বেই সম্পন্ন করার বিষয়ে তিনি পৌরসভা কর্তৃপক্ষের বিশেষ দৃষ্টি আকর্ষণ পূর্বক পুনরায় অনুরোধ জানান।	জ) কক্সবাজার শহরের অভ্যন্তরীণ চলমান উন্নয়ন প্রকল্পসমূহ দ্রুত সম্পন্ন করতে হবে। প্রকল্পসমূহের কাজের গতি ত্বরান্বিত করতে হবে এবং জনদুর্ভোগ লাগবে প্রয়োজনীয় ব্যবস্থা গ্রহণ করতে হবে।	জ.১)চেয়ারম্যান/সচিব, কক্সবাজার উন্নয়ন কর্তৃপক্ষ ২) মেয়র, কক্সবাজার পৌরসভা ৩) নির্বাহী প্রকৌশলী, সড়ক ও জনপথ বিভাগ/বিদ্যুৎ উন্নয়ন বোর্ড/জনস্বাস্থ্য প্রকৌশল অধিদপ্তর,কক্সবাজার
	ঝ) কক্সবাজার পৌরসভার বিশেষ বরাদ্দের আওতায় চলমান উন্নয়ন প্রকল্প কক্সবাজার পৌরসভার বিশেষ বরাদ্দের আওতায় ০২ টি উন্নয়নমূলক কাজের মধ্যে ১টি সম্পন্ন হয়েছে এবং ১টি প্রকল্পের কাজের অগ্রগতি ৫৯%।	ঝ) কক্সবাজার পৌরসভার বিশেষ বরাদ্দের আওতায় ০২ টি উন্নয়নমূলক কাজের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন।	ঝ) মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
	"গ্রীনহাউজ গ্যাস নিঃসরণ কমানোর লক্ষ্যে কক্সবাজার পৌর এলাকায় পরিবেশ বান্ধব সৌর চালিত সড়কবাতি স্থাপন" পরিবেশ, বন ও জলবায়ু পরিবর্তন মন্ত্রণালয়, জলবায়ু পরিবর্তন-২ এর স্মারক নম্বর-২২.০০.০০০০.০৮৬.১৪.০৫৯.২১.২১২ তারিখ: ১২/০৯/২০২১ খ্রিষ্টাব্দ মূলে ট্রাস্ট ফান্ডের অর্থায়নে কক্সবাজার পৌরসভা, কক্সবাজার কর্তৃক বাস্তবায়নাধীন "গ্রীনহাউজ গ্যাস নিঃসরণ কমানোর লক্ষ্যে কক্সবাজার পৌর এলাকায় পরিবেশ বান্ধব সৌর চালিত সড়কবাতি স্থাপন" শীর্ষক প্রকল্পের আওতায় কক্সবাজার পৌর এলাকায় পরিবেশ বান্ধব সৌর বিদ্যুতায়িত সড়কবাতি স্থাপণের জন্য ২০০.০০ (দুইশত) লক্ষ টাকা বরাদ্দ প্রদান করা হয়েছে।	১) কক্সবাজার পৌরসভার "গ্রীনহাউজ গ্যান নি:সরণ কমানোর লক্ষ্যে কক্সবাজার পৌর এলাকায় পরিবেশ বান্ধব সৌর বিদ্যুতায়িত সড়কবাতি স্থাপন" শীর্ষক প্রকল্পটি কাজের অগ্রগতি প্রতিবেদন শতকরা হিসেবে আগামী সভার পূর্বে অবহিত করবেন। ২) উপপরিচালক, স্থানীয় সরকার প্রকল্পের কাজ নিয়মিত পরিবীক্ষণ করবেন।	১. উপপরিচালক, স্থানীয় সরকার, কক্সবাজার ২. মেয়র, কক্সবাজার পৌরসভা, কক্সবাজার
০৭	কক্সবাজার বিমান বন্দর উন্নয়ন প্রকল্প		
	ব্যবস্থাপক, কক্সবাজার বিমান বন্দর, কক্সবাজার জানান যে, প্রকল্পে অনুমোদিত মোট ব্যয় : ১১৯৩,৩২,৪০,০০০/- টাকা। সিএএবি অংশের (বিমানবন্দর) কাজের মোট অগ্রগতি-৯৮.৩৮% সিএএবি কর্তৃক কার্যাদেশভুক্ত ব্যয়ের পরিমাণ: ৫৭৮,২০,৭৭,৭৩৪.০০/- টাকা।	কক্সবাজার বিমান বন্দরকে আন্তর্জাতিক বিমান বন্দরে উন্নীতকরণ প্রকল্প নির্ধারিত সময়ের মধ্যে বাস্তবায়ন করতে হবে।	ব্যবস্থাপক, কক্সবাজার বিমান বন্দর, কক্সবাজার

	ঘ) বার্ষিক কর্মসম্পাদন চুক্তি (APA): স্ব স্ব প্রতিষ্ঠানের ২০২১-২২ অর্থ বছরের বার্ষিক কর্মসম্পাদন চুক্তি (APA) বাস্তবায়নে প্রয়োজনীয় পদক্ষেপ গ্রহণের জন্য এবং নিয়মিত সভা আহবান করে অগ্রগতি প্রতিবেদন উর্ধ্বতন অফিসে প্রেরণের জন্য সভাপতি দপ্তর প্রধানগণের দৃষ্টি আকর্ষণ করেন।	ঘ) স্ব স্ব প্রতিষ্ঠানের ২০২১-২২ অর্থ বছরের বার্ষিক কর্মসম্পাদন চুক্তি (APA) বাস্তবায়নে প্রয়োজনীয় পদক্ষেপ গ্রহণ করতে হবে এবং নিয়মিত সভা আহবান করে অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে।	সকল দপ্তর প্রধানগণ
	ঙ) জাতীয় শুদ্ধাচার কৌশল (NIS): সরকারী দপ্তরসমূহের স্বচ্ছতা ও জবাবদিহিতা নিশ্চিত করার জন্য প্রণীত জাতীয় শুদ্ধাচার কৌশল(NIS) কর্মপরিকল্পনা বাস্তবায়নে সকল দপ্তরকে সচেষ্ট থাকতে হবে এবং এ সংক্রান্ত কমিটির সভা নিয়মিতভাবে করতে হবে।	ঙ) জাতীয় শুদ্ধাচার কৌশল (NIS) কর্ম পরিকল্পনা বাস্তবায়নে সকল সরকারি দপ্তরসমূহকে যথাযথ ব্যবস্থা	সকল দপ্তর প্রধানগণ
	চ) উদ্ভাবনী কার্যক্রম (Innovative Activities) সংক্রান্ত: সেবা সহজীকরণ, দ্রুত সময়ের মধ্যে জনসাধারণের মাঝে সেবা পৌঁছে দেয়ার জন্য প্রত্যেককে উদ্ভাবন ধারণা তৈরী পূর্বক তা সভায় উপস্থাপনের জন্য সভাপতি সকলকে অনুরোধ করেন।	গ্রহণ করতে হবে এবং কমিটির সভা নিয়মিতভাবে করতে হবে। চ) সেবা সহজীকরণ, দ্রুত সময়ের মধ্যে জনসাধারণের মাঝে সেবা পৌঁছে দেয়ার জন্য প্রত্যেককে উদ্ভাবন ধারণা তৈরী পূর্বক তা সভায় উপস্থাপন করতে হবে।	সংশ্লিষ্ট সকল
	ছ) জেলা পর্যায়ে গৃহীত বিভিন্ন জনগুরুত্বপূর্ণ প্রকল্প বিষয়ে জেলা উন্নয়ন সমন্বয় কমিটি সভায় অবহিতকরণ: সভাপতি বিভিন্ন জনগুরুত্বপূর্ণ বিষয়ে সিদ্ধান্ত গ্রহণ ও বাস্তবায়নের লক্ষ্যে জেলা পর্যায়ে বিভিন্ন মন্ত্রণালয়, অধিদপ্তর এবং সংস্থা কর্তৃক গৃহীত প্রকল্পসমূহের বিষয়ে জেলা উন্নয়ন কমিটি সমন্বয় সভায় এজেন্ডায় অন্তর্ভূক্তকরণ এবং পরিবীক্ষণের প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য প্রকল্প সময়েরর বর্ণনাসহ প্রাসঙ্গিক তথ্যাদি জেলা প্রশাসকের কার্যালয়ের সাধারণ শাখার প্রেরণ করার অনুরোধ জানান।	ছ) বিভিন্ন দপ্তর/সংস্থার/প্রতিষ্ঠান মন্ত্রণালয় হতে প্রাপ্ত বিভিন্ন প্রকল্পসমূহ জেলা উন্নয়ন সমন্বয় কমিটি সভায় এজেন্ডায় অন্তর্ভূক্তকরণ এবং পরিবীক্ষণের প্রয়োজনীয় ব্যবস্থা গ্রহণসহ নিয়মিত মাসিক সভা অগ্রগতি প্রতিবেদন প্রেরণ করতে হবে	সংশ্লিষ্ট সকল

সভাপতি জেলার সার্বিক উন্নয়নে এবং জেলাবাসীর জীবনমান উন্নয়নে স্ব-স্ব দপ্তর প্রধানদের দায়িত্বশীলতার সাথে কাজ করার অনুরোধ জানান। তিনি উপজেলা পর্যায়ে বিভিন্ন সমস্যার বিষয়ে স্থানীয় ভাবে (উপজেলা পর্যায়ে) আলাপ আলোচনার মাধ্যমে সিদ্ধান্ত গ্রহণ করে সমাধানের পরামর্শ দেন। তিনি জেলার বিভিন্ন সমস্যা/সম্ভাবনার বিষয়ে সুচিন্তিত ও সুনির্দিষ্ট মতামত উত্থাপনের জন্য উপস্থিত সম্মানিত সকল জনপ্রতিনিধি, বিভিন্ন দপ্তরের কর্মকর্তাবৃন্দকে অনুরোধ করেন।সভায় আর কোন আলোচনা না থাকায় সকলকে ধন্যবাদ জানিয়ে এবং কোভিড-১৯ পরিস্থিতিতে সরকার নির্দেশিত স্বাস্থ্যবিধি যথাযথ ভাবে প্রতিপালনের আহবান জানিয়ে সভার সমাপ্তি ঘোষণা করা হয়।

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স্মারক নম্বর -০৫.২০.২২০০.১১০.০৩.০০৫.২০২২-৬৫

তারিখঃ ০৪ মাঘ ১৪২৮ বঙ্গাব্দ
১৮ জানুয়ারি ২০২২ খ্রিষ্টাব্দ

অনুলিপি : সদয় জ্ঞাতার্থে প্রেরণ করা হলো।

০১-০৫। জনাব ....., মাননীয় সংসদ সদস্য, কক্সবাজার

অনুলিপি : সদয় জ্ঞাতার্থে ও কার্যার্থে প্রেরণ করা হলো (জেষ্ঠ্যতার ক্রমানুসারে নয়)

০৬। মন্ত্রিপরিষদ সচিব, মন্ত্রিপরিষদ বিভাগ, বাংলাদেশ সচিবালয়, ঢাকা/ প্রধানমন্ত্রীর মুখ্য সচিব, প্রধানমন্ত্রীর কার্যালয়, তেজগাঁও, ঢাকা।
০৭। সিনিয়র সচিব, ... মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
০৮ সচিব,..... মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
০৯। বিভাগীয় কমিশনার, চট্টগ্রাম।
১০। পুলিশ সুপার, কক্সবাজার।
১১। উপ-পরিচালক, স্থানীয় সরকার, কক্সবাজার।
১২। অতিরিক্ত জেলা প্রশাসক(রাজস্ব/শিক্ষা ও আইসিটি)/বিজ্ঞ অতিরিক্ত জেলা ম্যাজিস্ট্রেট, কক্সবাজার।