

**Medium Term Expenditure Framework  
(2002/3-2004/5)  
Road Sub-Sector**

**Nepal Development Forum-2002**

**His Majesty's Government of Nepal  
Kathmandu  
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**Road Sector Development Paper cum MTEF**  
**Ministry of Physical Planning & Works**  
(NDF 2002, Nepal)

*Draft*

## **Executive Summary**

### **Background**

The **goal** of sub-sector "Road Transport" is to contribute the overall goal of the Ninth Five-year plan "Poverty Alleviation" by reducing the national transport cost, increasing mobility of goods and people for economic development.

To fulfill the goal, the following **major objectives** are undertaken:

- Maintenance of national highways and north-south feeder roads.
- Completion of strategic road network and nationally important projects for other sectors' development.
- Extension of agricultural and rural roads.
- Developing capacity for management and strengthening the domestic construction industry.
- Priority in the next 20 years to construction of roads connecting district headquarters, road building for industry, hydropower and tourism development and roads contributing to poverty alleviation through adoption of environmentally friendly labor based and low-cost road construction methods.
- Development of an integrated transport network plan and adopting measures to reduce vehicle operating costs through proper construction and maintenance.

### **Target and Achievement**

Taking the progress made during the last four years of the Ninth Plan, road and bridges construction target exceeded. It is planned to construct 13564-km road whereas 15803-km road has already been constructed.

Road transport along with Airways mostly fulfills the overall travel demand including transportation of goods in the country. Development of road transport is rapidly progressing with compare to other transport systems such as railways, ropeways and waterways.

Construction and maintenance of roads have been proved to be challenging and difficult tasks in such a rugged topography combined with harsh climatic condition. Road construction started since the inception of planned development system in Nepal. At present, Department of Roads (DOR) is responsible for construction and maintenance of 15905km of all types of roads of which 30 % are Blacktoped, 25 % graveled and 45 % earthen. The strategic road network is about 30% (4794 km). The average length of roads per capita is about 1200km, which is among the lowest in comparison to many developing countries.

### **Major Issues and Challenges**

- Weak link between national and sectoral objectives/goal
- Too many projects under execution without prioritizing for better utilization of resources and return
- Project implementation without appropriate study
- Low economic return from the completed roads/ lack of holistic/integrated development approach
- Young and fragile geological and environmental condition causing road construction & maintenance more expensive
- Weak project monitoring and evaluation system
- Lack of system of performance evaluation / technical and financial auditing
- Lack of proper data base systems
- Lack of social infrastructure, awareness and people's participation causing ownership dispute
- Lack of application of appropriate technology and mobilization of local resources and community
- Lack of promotion of private sector participation
- Internal security problem

- Projects generally donor/ politically driven

## Major Road Sectoral Reforms

The government recently conducted a study on public expenditure through forming a Public Expenditure Review Committee (PERC) as a part of its reform initiatives.

The main recommendations of PERC are: integration of regular and development budget, reduction of number of projects, initiation of medium term expenditure framework for fiscal discipline, priority for core projects to be given in budget allocation for timely completion, strengthen monitoring and evaluation of expenditure and physical progress, decentralize certain functions of central government and introduce performance based allocation of budget.

The PERC main recommendations relevant to road sub-sector are projects' feasibility and environmental studies must be carried out and be submitted to NPC for their appropriateness from the point of national and sectoral goals and incorporation into the planning process before putting up in the annual program for implementation of any projects. Further, sectoral resource balancing, suitability for foreign donor's involvement, HMG/N contribution requirement (counterpart fund), should be carefully assessed along with the viability of the projects including benefits to different stakeholders.

In line with the recommendations of PERC, following policy reforms and updating have been done or in progress:

### ☞ Strengthening the Process of Decentralization

There has been increased recognition to decentralization in the sectoral planning process. Emphasis has been laid on the decentralized participatory planning and service delivery processes. Particularly on local infrastructure development like in roads, Local authorities and CBOs are given the key role in planning and lead the implementation and ultimately take over the role of upkeep of the developments with the line agencies playing the anchor role of a facilitator.

### ☞ Formulation of National Transport Policy 2001

The Principal objective of the National Transport Policy approved last year is to develop a self reliant, sustainable, cost effective and safe strategic transport network to contribute in the national productivity through socio- economic, socio-cultural and tourism development.

### ☞ 20 Years Road Plan (Long term)

Based on the National Transport Policy 2001, a long-term (20-year) road development Master Plan is in the process of finalization. (Draft under discussion). It is proposed to construct 4014 Kms of road in the coming twenty years (by the end of Thirteenth Plan). This plan will give a definite course of future actions and will assist in setting priorities for future development and the investment requirements.

### ☞ Public Infrastructure Policy in BOT – 2057/ BOT Act (under preparation)

To attract the private sector investment in supplementing the construction of roads, an enabling environment to promote private sector participation, HMG/N has approved a BOT Policy 2057 for the construction of the Public Infrastructure its corresponding Act is at the final stage of preparation and will be put forward to the forthcoming session of the Parliament.

### ☞ Road Fund Board Act (Draft)

For the upkeep of the built roads routine, periodic maintenance and rehabilitation is very important and will require fund allocation for the same. It is for the reason a road maintenance fund is being established to channelize all the revenues collected from the road users in the fund. The Act has been tabled in the parliament and hopefully will be approved in the forthcoming session.

### ☞ Technical Auditing – on going

The proposed technical audit will basically verify the design appropriateness (maximum output for the minimum input), verify project effectiveness (reasonable balance between functionality and cost) and confirm

on the project sustainability. The technical auditing will be duly institutionalized within the concerned ministry of HNM/N and or under Prime Minister's office or NPC.

☞ Public Works Directives – on going

As stated in the Financial Administrative Rules (FAR), directives for carrying out Public Works has been developed and is expected approval by HMG/N soon. Besides above initiatives, other reform and improvement that are implemented or on going as well

## **Road Sector in Tenth Plan – Approach Paper (Draft) and I-PRSP**

### **Objectives**

The main objective of the road sub sector will be to provide uninterrupted flow of goods and people with safety and transport services available at least cost, and help poverty alleviation effort and broad based economic growth including balancing of regional development through generating employment, providing access to the market to the local products and accelerating the potential economic growth in other sectors like tourism, hydropower etc. The sub-objectives will be:

- Development of strategic road network (access to district head quarter and regional balance). And areas with significant socio- economic importance e.g. hydropower, tourism etc.
- Encourage private sector participation in the development of road network.
- Institutional capacity enhancement.
- Promotion of decentralized management and appropriate technology/ environmental management.
- Application of planned road maintenance system including performance based maintenance contract.

### **Strategy**

- To build, extend and strengthen strategic road transport network to cater the traffic growth and improve level of service to reduce transport cost
- To introduce and extend plan road maintenance management system
- To create a sustainable road maintenance fund through the establishment and efficient operation of a Road Fund Board and initiating performance based maintenance contracting system
- To encourage private sector participation in the development of toll roads and road maintenance
- To classify roads as central, district and municipalities roads and redefine roles and responsibilities of various agencies.
- To provide access/ improve rural accessibility including support in the tourism, agriculture sectors adopting labour based and environment friendly approach.
- To provide traffic safety and reduce congestion in city roads & highways and vehicular pollution
- To develop, reform and strengthen institutional capacities of the government agencies, consulting and construction industries
- To make use of appropriate technology, IT and locally available resources for cost optimization
- To provide optimum benefit to the deprived local community through CBO and local people mobilization to generate employment and other development activities during construction and maintenance. To create ownership in rural roads through sharing of costs

### **Major Activities/Program**

- Priority will be given to construct District Head Quarter connections and strategic road network
- Construct roads to promote other sectors of economic importance like tourism, market centres, hydropower development and agriculture.
- Introduce & extend Planned Road maintenance activities like routine, periodic, rehabilitation works
- Full operation of Roads Fund Board for the collection of revenues and allocation of maintenance fund to the road works
- Restore strategic roads to maintainable condition through performance based maintenance contract
- Create an inventory of road network of different level in the country with regular updating of traffic data and pavement condition and other road feature
- Policy and regulatory reform to create conducive environment for private sector participation
- Strengthening various units of DOR and MOPPW like GEU, M & E, RSSDU, Planning and Programming, HMIS and CTE for increasing institutional capacity for efficient delivery of programs

- Continuous updating of integrated road transport planning
- Execute new construction of feeder road in physically remote and economically deprived area particularly from regional and geographic balancing point of view
- Maximize use of local resources and local community in road construction and maintenance in order to reduce construction and maintenance costs
- Use of environment friendly and labour based technique in road building

#### **Major Expected Outcome**

- District Headquarters and other tourist centers connected by roads
- Reduction in transportation costs/ vehicle operating cost, travel time
- Sustainable maintenance fund available
- Strategic roads in good condition
- National and regional potentials increased including employment generation due to road network to help contributing poverty alleviation and economic development
- A database for road planning and management and a Master Plan to bring existing rural roads to a serviceable condition.
- Inter-regional accessibility improved
- Agriculture product transported to the major market centres.
- Social dimension of deprived community improved
- Least damage to environment

#### **Major Road Projects and Program**

Under tenth plan, major road projects will be donor funded mainly the World Bank, ADB, DFID and JICA, SDC including China, India, South Korea & OPEC. In the tenth plan, WB funded Road Maintenance and Development Project (RMDP) that includes 450 km of new roads, 162 km of rehabilitation and 66 km of periodic maintenance works. Similarly, within the forthcoming Plan, ADB and DfID is funding Road Network Development Project (RNDP) for the construction of 89-km new road, 210-km road improvement and 140-km periodic maintenance. About 400 km will be constructed under HMG fund. All together, over 1700 km of roads and 200 bridges will be constructed/upgraded/improved and rehabilitated under various road categories within the 10th plan. In addition to the plan, it has been estimated to carry out over 700-km periodic maintenance work, 5000-km recurrent maintenance.

#### **Road Project Prioritization Criteria/ Screening**

An attempt has been made to prioritize the project on the basis of the contribution that each project makes to the main element of the Poverty Reduction as outlined in PRSP and tenth plan. The other elements are accelerating economic growth, provision of social services and infrastructure, targeted program and good governance. As per the criteria advised on NPC and MTEF sectoral outline and PERC recommendations, including the comments/suggestions provided by the participants of the workshop organized on 18<sup>th</sup> January 2002, Kathmandu, the following revised criteria with their percentage weightage in 100 scale are considered for prioritization of projects for the on-going, new and future projects:

▪ Project of national strategic importance/ relevant to national	20
▪ Project of sectoral strategic importance/ relevant to sectoral objectives	15
▪ Project attractiveness – rate of return of investment/viability/ cost effectiveness	15
▪ Justification of continuity of the existing projects	10
▪ Project sustainability	10
▪ Geographic and Regional Balancing	10
▪ People's participation/local level and community participation	5
▪ Utilization of local resources and technology	5
▪ Project with local importance - DDCs/Municipalities and VDCs (reverse marking)	5
▪ Possibility of stage/ phase-wise construction	5
	100

Following criteria will be applied for the prioritization of construction of both the continuing and new bridges

- links to the road network of strategic importance
- construction of bridge without building road access
- social & economic importance - viability
- stage of construction and investment level (in the case of continuing ones) to decide whether to continue or drop or slowdown

The possibility of bringing private sector participation should also be assessed before seeking funds from government and other sources for any road and bridge projects of new and maintenance nature.

## Rolling Program Budgeting - MTEF

MTEF concept on the need for three-year forward planning, programming and budgeting system can be a laudable step towards establishing better planning practice in a resource constraint country like ours. The adoption of this approach will certainly result in the judicious utilization of limited and scare resources in prioritized projects leading to optimal use of the available resources in the country and help meeting the national and sectoral objectives. Moreover, as the programmes and projects are well tied-up with resources, the element of uncertainty in the resource availability for the future is expected to be considerably minimized by this approach. This MTEF will help to translate the tenth plan into action program to achieve the target set. There is also a greater possibility of convincing donors directing their funds towards prioritized projects to meet the national goal.

The expected output of the road sub-sector in the three-year rolling program and tenth plan are as follow:

Road Sub-sector/description	3 yrs. (MTEF) target	Tenth five yrs. target (Total)
- New Road construction in Km	375	650
- Upgrading (in Km)	427	711
- Road improvement & Rehabilitation (in Km)	293	370
- Periodic maintenance (in Km)	466	710
- Motor able bridge construction- all type in no.	150	240
- Additional no. of Dist. Hqtrs linked by road access	5	7

## Project Prioritization Assessment

The criteria mentioned above are applied for the assessment of projects ranking. During the initial assessment, all these criteria were given equal weightage and first round of prioritized list prepared. However, the different weightage has been worked out this times for different criteria based on the feedback collected during the MTEF workshop for more realist exercise of project/program prioritization.

The road projects are broken into Part I and II and further the Part I activities/projects are grouped as General including regular maintenance of roads; Core and Rolling Projects with a total of 27 and 21 projects respectively and comprising of highways, feeder roads and other roads; Hulaking Roads; and bridges of different type and category. The projects listed under the heading -core and rolling projects have scoring in the range of 80 and above and hence all those projects are somehow needed to continue.

The Part II type of projects are grouped into other projects of priority 1, 2 and 3 with DOLIDAR roads and are needed to further look into detail before making any decision, since those projects are also based on 20 Years Road Plan (draft) which include projects of nature/phase like study, detail design and investigation and actual construction. Some of the projects may be possible to dropped or slow down or change the way of implementation after the acquisition of proper project information and prioritization. However, the majority of the projects listed is of supportive to national and sectoral goals and are needed to continue to help achieving the tenth plan outputs.

In case of bridge the number has been reduced from some 510 to 240 and further reduction exercise is still underway. Further, some of projects are on pipeline for financial support and some are under study. Hence, the final list of projects is subject to change later.

## Budget Allocation

Refer to the table below "3 years Rolling Budget" next year (Fy 2059/60) budget is allocated as per the budget ceiling provided at this stage to projects under Part I, Priority I (PI) and additional budget is requested for the same year for the same projects under Part I, Priority II (PII) as explained in Project Prioritization Assessment above. It is noted that the budget ceiling provided is lower than compare to this year's allocation. The total budget estimated for the next fiscal year is 8407 millions. The budget estimates of Fy 2060/61 and 2061/62, are in the range of 8906 and 9435 millions respectively. The total of three years comes out to be Rs. 26750 millions (Refer budget allocation sheets for details)

### 3 YEARS ROLLING BUDGET (MTEF) (Road Sector, MoPPW)

Project Name	Budget allocated in 2058/59	Rolling Year 1 FY-2059/060								Rolling Year 2 FY-2060/061	Rolling Year 3 FY-2061/062
		Priority I (PI) Part I A				Priority II (PII) Part I B					
		HMG	Grant	Loan	Total	HMG	Grant	Loan	Total	Total	Total
<b>Part I total</b>	5401226	2510000	881000	885000	4276000	1934779	574980	858925	3368684	8090349	8568895
1. GENERAL	1436426	1053300	0	0	1053300	437000	0	0	437000	1572795	1700530
2. CORE PROJECTS	2800300	577556	653580	872925	2104061	412556	461180	850875	1724611	4266589	4177656
3. ROLLING PROJECTS	420500	298563	20700	12075	331338	298563	13800	8050	320413	602350	568780
4. HULAKI ROADS	100000	7000	0	0	7000	98000	0	0	98000	110000	112000
5. BRIDGES	644000	573581	206720	0	780301	688660	100000	0	788660	1538615	2009929

Project Name	Budget allocated in 2058/59	Rolling Year 1 FY-2059/060								Rolling Year 2 FY-2060/061	Rolling Year 3 FY-2061/062
		Priority III (PIII) Part II A				Priority IV (P IV) Part II B					
		HMG	Grant	Loan	Total	HMG	Grant	Loan	Total	Total	Total
PART II Other roads with priority I, II and III including DoLIDAR roads	387500	381613	0	0	381613	381613	0	0	381613	815940	866604

<b>Grand Total (Part I + Part II)</b>	5788726	2891612	881000	885000	4657612	2316391	574980	858925	3750296	8906289	9435499
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<b>Regular Expenditure</b>	210635	242600	0	0	242600	0	0	0	0	260000	290000
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Note: General item above includes regular expenditure

## Finding, Implication, Readjustment and Implementation

**Findings and Scenario** - After the project prioritization by applying defined prioritization criteria as mentioned above, it is found that some of the on-going road and bridge projects are on non-strategic road network. The locally funded projects are being implemented with very low budget allocation, which can not produce any significant physical progress within the reasonable project period,

Further, the substantial component of HMG/N fund has been used/ is required as a counterpart/matching fund.

The human resources and technical capacity built up through donor's assistance have not been sustained and institutionalized as regular activities.

Refinement of the unit costs would also be required for the given projects.

The numbers of projects can be adjusted according to finalized budget ceiling by dropping/slowing down low priority projects or reducing the programmed length of projects and or reviewing phase/stage construction proposed for certain projects.

The projects have been worked out based on the previous annual program and budget allocation and are prioritized as mentioned above. However, additional funding is required in road sub-sector as the budget

ceiling provided is low even compared to previous years. Otherwise, the target set in the tenth plan will not be possible to achieve.

**Implication/adjustment** - Appropriate regulatory frameworks and changes in the mode of operation and departure from the prevailing planning practices are required to enable MTEF to function effectively. If donors are supportive in program level rather than in project level, it would be more helpful to achieve national and sector objectives.

**MTEF – Implementation** -The Project Implementation Plan (PIP) providing a description of the project and all of the arrangements for project management, use of consultants, construction contracts, financial accounting, progress reporting, and monitoring and evaluation will be required to use as a guiding document by the executing agency, implementing agency, Project Manager and donor to plan, monitor and evaluate the project. In order to internalize MTEF, **implementation measures** to be adopted simultaneously are:

- Regular updating of data bases particularly relating to programmes, projects and budget.
- Training of manpower to familiarize with this new concept.
- Regular monitoring and supervision to observe whether or not the progress is moving in the right direction as per MTEF concept.
- Annual evaluation of performance to find out the real issues and challenges in the adoption of MTEF concept and lesson learned.

**Monitoring and Evaluation** - Project's Impact, progress and financial indicators should be defined for monitoring and evaluating the development impacts of the project. The possible ways to progress monitoring and evaluation of project work being done at different level and phases are: Regular quarterly progress monitoring and reporting, On-site supervision and inspection of works and Workshop

**Project Public Auditing** system should be introduced as a part of audit activities, which includes auditing in total aspects of project. **Post –Evaluation for Impact Assessment** – Project impact assessment should be carried after its completion to find out whether the project has provided impacts that were expected during the formulation. The lesson learnt from the project should be considered in the implementation of the future projects.

## **Conclusion and Recommendation**

**Conclusion** - It is expected that the present MTEF approach will resolve most of the problems at least in the programming and budgeting front as it will plan ahead both prioritized programs and projects on the one hand, and budget to implement them, on the other. The effectiveness of this approach, however, is highly dependent upon the ability of all planning and programming units and implementers operating at different levels of the government departments and ministries.

### **Recommendations**

- ☞ Develop and circulate booklet (in Nepali) dealing with MTEF concept and methodologies
- ☞ Encourage the need for advance and forward looking planning approach in all departments and ministries
- ☞ Analyze the MTEF tool in the light of political changes and political interference including internal security situation in our context
- ☞ Reorganizing program budgeting of three years rolling concept for resources optimization and output maximization to achieve national and sectoral objectives
- ☞ Integration of information and communication system for creating efficient working through sharing of resources, and information (paper less concept) through use of computer and networking
- ☞ Strengthening existing HIMS for continuous updating of database/ information on roads and bridges
- ☞ Strengthening existing M and E unit for periodic progress monitoring and evaluation of projects
- ☞ Institutionalize project auditing system of major projects in all aspects by public

- ☞ Regular publication of road sub-sector information to public about plan and program
- ☞ Bring into action, the necessary policies and regulatory frameworks for example for private sector mobilization in the road infrastructural development to create conducive environment.

**Road Sector Development Paper cum MTEF**  
**Ministry of Physical Planning & Works**  
(NDF 2002, Nepal)

*Draft*

## **1.0 Background**

### **1.1 General**

To support national economic and social development, it is essential to link both the geographic and economic regions of the country with the transport network. It is equally essential to see the urbanization process not only in the context of the physical development but also to account for its contribution to the national economy and national integration. The role of the infrastructures particularly the roads in the process of nation building are thus very important.

It is in this context, during the course of the reorganization of the Ministries, HMG/N in 2000, established the Ministry of Physical Planning & Works (MoPPW) to bring important infrastructural development under the umbrella of a single Ministry with an objective to harmonize the policies and bring efficiencies and effectiveness in the provision of infrastructural services. The development of the national strategic transport network particularly of the road network, improved housing and urban environmental developments and increased access to the provision of water supply and better sanitation facilities are the major responsibility that lies under this Ministry.

#### **Vision**

Settlement linked with road networks and availability of safe shelter with basic infrastructure services

#### **Mission**

Provide uninterrupted flow of goods and people by the sustained development of road networks, planned urban development, safe housing & water supply and adequate sanitation for improvement of quality of life through efficient mobilization of resources and use of appropriate technology.

#### **Major Objectives**

- To enhance the socio-economic development of the nation through the establishment of the affordable national strategic transport facilities like road network, railways, ropeways, and waterways through its sustained development.
- To link the major market centers with the rural areas and to integrate the major sectors of national economic importance like tourism, agriculture etc in the balanced regional development of the road network.
- To promote the planned urban development with a view to support and supplement the rural development by promoting the rural – urban partnership and balanced development.
- To prepare physical planning and develop improved & affordable housing for the physical development of an urban or upcoming towns.
- To expedite on the access to the provision of water supply & sanitation coverage for the protection of health of the common Nepalese and gradually putting effort for improving drinking water quality and better sanitation facilities.

## 1.2 Review of Ninth Plan in National Context

Until 5th five-year Plan, emphasis had been given on development of physical infrastructure. Later the priority was shifted to improve agricultural and forest production including human resource development. Free market policy was a major shift in economic policy in the 8th plan, which provided opportunities to mobilize private sectors' resources and their involvement in the development activities. Poverty alleviation and unemployment problems are still the major concern among others, although development has been progressively taking place in various sectors. It is therefore; the poverty alleviation is taken as the overall objective of the 9th plan, formulation of which is based on the long-term development concept.

To meet this objective, following areas are identified:

- increase in agricultural productivity in a sustainable way to help reduce the poverty
- develop water resources, tourism and transport sectors as industry
- mobilize internal resources at the most to reduce donor dependence
- promote participation of the private sector in the development
- reduce gap in socio-economic among communities and regions
- Adopt free market policy.
- conduct rural area development programmes

In the 9th Plan, **targets** on the reduction of poverty level and GDP growth were 32% and 6% respectively. The respective figures achieved are 38 % and about 5% on an average in the first four years of 9th plan.

The **main issues** are lower agriculture growth than targeted, manpower produced not in line with market demand, weak relation among national and sectoral objectives and strategies, internal security problems, sever affect in tourism sector, over ambitious goals and programs, too many priority projects, poor implementation and low outputs, lack in optimum use of scare resources, weak M and E and lack of ownership in the operation due to less or no local level/people's participation in project execution.

The **main challenges** are making development reaching to grass root level or in other words, poverty still remains as a challenge, generating manpower to meet the market demand, strengthening internal security and reestablishing pace and conducive environment for sustainable development and reform for transparency and good governance.

## 1.3 Roads – background, objectives, target & achievement and issues & challenges

The **goal** of sub-sector "Road Transport" is to contribute the overall goal of the Ninth Five-year plan "Poverty Alleviation" by reducing the national transport cost, increasing mobility of goods and people for economic development.

To fulfill the goal, the following **major objectives** are undertaken:

- Maintenance of national highways and north-south feeder roads.
- Completion of strategic roads in the west as well as access roads from nationally important projects for tourism and sectors' development.
- Extension of agricultural and rural roads.
- Developing capacity for transport management, contract administration and strengthening the domestic construction industry.

- Priority in the next 20 years to construction of roads connecting district headquarters, agricultural and farm-to-market roads, road building for industry, hydropower and tourism development and also the social roads contributing to poverty alleviation through adoption of environmentally friendly labor based and low-cost road construction methods.
- Development of an integrated transport network plan and adopting measures to reduce vehicle operating costs through proper construction and maintenance.

### Target and Achievement

Taking the progress made during the last four years of the Ninth Plan, road and bridges construction target exceeded. It is planned to construct 13564-km road whereas 15803-km road has already been constructed.

**Table 1: Target and achievement made during the last four years:**

SN	Description of roads	Target (km)	Progress (km) until 2057/058	Progress Percentage (%)
1	Road upgrading			
	a. Blacktop	740	490	66.2
	b. Gravel	1225	778	63.5
	c. Earthen	952	684	71.8
	Total road length	2917	1952	67
2	Road Improvement (Rehabilitation)	758	1052	139
3	Periodic Maintenance	2954	678	23
4	New Road Construction			
	a. Blacktop	149	380	255
	b. Gravel	819	1089	132
	c. Earthen	952	1372	144
	Total road length	1920	2841	148
5	Motorable Bridge Construction	87 nos.	69 nos.	79.31%
6	Nos. of District Head Quarters without road link till 8 <sup>th</sup> plan 19 nos.	Target of 9 <sup>th</sup> plan 12 nos.	Progress till 2057/058 2 nos.	Remaining DHQs without road link 17 nos.

The only viable surface transport in Nepal is roads compared to other mode of transport. Road transport along with Airways mostly fulfills the overall travel demand including transportation of goods in the country. Development of road transport is rapidly progressing with compare to other transport systems such as railways, ropeways and waterways.

Construction and maintenance of roads have been proved to be challenging and difficult tasks in such a rugged topography combined with harsh climatic condition. Road construction started since the inception of planned development system in Nepal. At present, Department of Roads (DOR) is responsible for construction and maintenance of 15905km of all types of roads of which 30 % are Blacktoped, 25 % graveled and 45 % earthen. The strategic road network is about 30% (4794 km). The average length of roads per capita is about 1200km which is among the lowest in comparison to many developing countries and does also reflect the regional imbalances too with the variation in per capita of 600 to 1500 km between mid hills and terai.

Lack of a national transport sector policy in the road sector has also been seen as the main reason for the construction of roads and bridges in the non-priority areas and thus not contributing meaningfully to the national economy. The National Transport policy approved in 2001 is thus a major milestone in this regard.

Road building is not only expensive due to terrain condition but also due to the low traffic volume, the rate of economic return is also low making most of the roads of strategic importance economically less attractive. Thus there seems a greater need of integration and coordination with other economic sectors like agriculture, tourism, etc at the planning stage for its optimum economic uses.

There is a greater need of the adequate maintenance capital fund for the routine, periodic and rehabilitation maintenance of the completed roads. With the annual increase in the lengths of the completed road sections, there is further need of extra allocation of fund on road maintenance. The government has emphasized for maintaining existing roads for better serviceability and cheaper operating costs beside new construction of essential missing links and the performance based maintenance contract is also being promoted. Establishment of the road maintenance fund and channelizing all the funds collected from all the road users from different sources to a common fund and prioritizing its allocation based on a defined policy has been seen very essential for effective and efficient road maintenance (draft road fund act is being prepared for further action).

The private sector has been contributing a lot in the construction industries but its optimum potential has still not been harnessed. The capacities of the domestic construction industry has been substantially improved over the years through the donor supported institutional capacity development programs. The Equipment management unit developed during the Third Road Improvement Project needs to be continued & developed as a business institution with the help of institutional component of Road Maintenance and Development (RMD) Project. Similarly there seems a great potential to attract international and domestic private sector to build, operate and transfer economically viable project and thus setting up an enabling environment through the development of appropriate policies/strategies supported by appropriate legislation seems equally essential to promote private sector participation in the road infrastructural development.

Some of the recent studies about the possibility of the promotion of domestic water transport does not seem economically viable because of the huge capital cost that may have to be invested in developing the waterways and importing of the appropriate hovercrafts. The hydropower potential in the nation makes the development of the transport network through the development of railway and cableways looks highly feasible but needs to be appropriately explored.

The concept of the South Asia Growth Quadrangle (SAGQ) and Asian Highway Network to promote sub-regional cooperation between Bangladesh, Bhutan, India and Nepal through the development of the transport sector is also an initiative which needs to be promoted at the national and sub regional level. The harmonization in the policies for cross border facilities regarding the custom/immigration clearances, improvement in logistics and in the inter-modal transport facilities needs to be promoted for cost effective and efficient transport management.

### **Major Issues and Challenges**

The major issues and challenges are summarized as follows:

- Weak link between national and sectoral objectives/goal
- Too many projects under execution without prioritizing for better utilization of resources and return
- Project implementation without appropriate study
- Low economic return from the completed roads/ lack of holistic/integrated development approach
- Young and fragile geological and environmental condition causing road construction & maintenance more expensive
- Weak project monitoring and evaluation system
- Lack of system of performance evaluation / technical and financial auditing

- Lack of proper data base systems
- Lack of social infrastructure, awareness and people's participation causing ownership dispute
- Lack of application of appropriate technology and mobilization of local resources (including community mobilization )
- Lack of promotion of private sector participation
- Internal security problem
- Projects generally donor/ politically driven

## 2.0 Major Road Sectoral Reforms

The government recently conducted a study on public expenditure through forming a Public Expenditure Review Committee (PERC) as a part of its reform initiatives.

The main recommendations of PERC are: integration of regular and development budget, reduction of number of projects, initiation of medium term expenditure framework for fiscal discipline, priority for core projects to be given in budget allocation for timely completion, strengthen monitoring and evaluation of expenditure and physical progress, decentralize certain functions of central government and introduce performance based allocation of budget.

The PERC main recommendations relevant to road sub-sector are projects' feasibility and environmental studies must be carried out and be submitted to NPC for their appropriateness from the point of national and sectoral goals and incorporation into the planning process before putting up in the annual program for implementation of any projects. Further, sectoral resource balancing, suitability for foreign donor's involvement, HMGN contribution requirement (counterpart fund), should be carefully assessed along with the viability of the projects including benefits to different stakeholders.

Further more, the other recommendations relevant to road sub-sector are:

- Transfer of project staff at least not before 2 years
- Division Road Office (DRO) not more than 25 in total
- DRO to look after major maintenance and upgrading works of highways and feeder roads as well as the new projects under their jurisdiction beside regular maintenance and operation of roads. This is possible after handing over the district and village roads and city roads to MOLD (DDC and Municipalities)
- Local or grant fund to use for project preparation but not the loan money
- Not to include any road or bridge projects in the annual budget program without feasibility being done and getting necessary approval from NPC
- Not to include any local projects in the budget program that need more than 5 years to complete. However, any confirmed foreign aided project can be included in the budget list
- The list of road and bridge projects identified by PERC for review must be done as per the prioritization criteria before proposing in the budget program – refer PERC report for information
- Strictly adhere to approved annual budget program while implementing projects
- Planned road maintenance system to adapt and performance based road maintenance contract through involving private contractors to be introduced
- Bringing private sector for road development through BOT concept e.g. fast track road construction
- 20 years transport policy to prepare and accordingly incorporate in the periodic planning and budgeting
- Practices of progress monitoring and evaluation of projects including projects implemented by Commission, Centre Committee and any NGOs that have HMGN contribution and their impact and progress to be brought into national account.
- Subject Officer/Consultants to be employed at NPC for M and E of sub-sector projects
- System of independent project auditing including access to public auditing to be institutionalized

**In line with the above recommendations of PERC, following policy reforms and updating have been done or in progress:**

☞ Strengthening the Process of Decentralization

There has been increased recognition to decentralization in the sectoral planning process through the development of regulations, guidelines, manuals and working procedures. Emphasis has been laid on the decentralized participatory planning and service delivery processes. Particularly on local infrastructure development like in roads and water supply and sanitation, the beneficiary communities are given the key role in planning and lead the implementation and ultimately take over the role of upkeep of the developments with the line agencies playing the anchor role of a facilitator.

☞ Formulation of National Transport Policy 2001

The Principal objective of the National Transport Policy approved last year is to develop a self reliant, sustainable, cost effective and safe strategic transport network to contribute in the national productivity through socio- economic, socio-cultural and tourism development. The strategic directions are:

- to define the clear roles and responsibilities of the central government in the development of the strategic transport network
- to strengthen the decentralized governance system and mobilizing the local resources to the optimum in the development and upkeep of the local level transport network
- To attract the private sector participation in the development of strategic transport network.
- The road network has also been classified into three categories central, local and urban roads and the responsibilities has been accordingly shared between the central, local government (DDCs) and the municipalities.
- The Policy has also directed eventually to change the present Department of Roads (DoR) and Department of Transport Management (DoTM) into a National Road Transport Authority

☞ 20 Years Road Plan (Long term)

Based on the National Transport Policy 2001, a long-term (20-year) road development Master Plan is in the process of finalization. (Draft under discussion). It is proposed to construct 4014 Kms of road in the coming twenty years (by the end of Thirteenth Plan) and shall require an investment of Rs.32.4 billion tentatively. Some of the key roads identified as potential projects for the private sector financing and participation under Built- Operate – Transfer (BOT) concept are:

- Kathmandu- Terai Direct link
- Kathmandu Outer Ring Road
- Janakpur- Jayanagar Road
- Bypass and some urban roads
- Road maintenance

This plan will give a definite course of future actions and will assist in setting priorities for future development and the investment requirements.

☞ Public Infrastructure Policy in BOT – 2057/ BOT Act (under preparation)

To attract the private sector investment in supplementing the construction of roads, an enabling environment to promote private sector participation was seen essential and in this context HMG/N has approved a BOT Policy 2057 for the construction of the Public Infrastructure. Bids are being solicited for the construction of

roads; airports, housing projects etc based on this policy. It was felt that the policy alone is not adequate on one hand to give confidence to the private sector and on the other hand for the protection of the users interests and therefore an Act is at the final stage of preparation and will be put forward to the forthcoming session of the Parliament.

#### ☞ Road Fund Board Act (Draft)

For the upkeep of the built roads routine, periodic maintenance and rehabilitation is very important and will require fund allocation for the same. Due to lack in allocation of adequate fund coupled with the ambiguous policy on maintenance, the funds are not allocated to the priority areas and are not also used in cost-effective manner. It is estimated that the annual requirement for the maintenance is about one billion rupees whereas the allocation is about half of that. It is for the reason a road maintenance fund is being established to channelize all the revenues collected from the road users in the fund. Since the private sector has a valuable contribution to the fund, their adequate representation in managing the fund is seen equally important. The Act has been tabled in the parliament and hopefully will be approved in the forthcoming session.

#### ☞ Technical Auditing – on going

The post implementation technical audits for any infrastructural project is seen a primary need in the context of the degrading quality in the public works. The technical audit will basically verify the design appropriateness (maximum output for the minimum input), verify project effectiveness (reasonable balance between functionality and cost) and confirm on the project sustainability. It is in this context the technical auditing to suit to the specific needs of the infrastructural developments is being initiated. The technical auditing will be duly institutionalized within the concerned ministry of HNM/N and or under Prime Minister's office or NPC.

#### ☞ Public Works Directives – on going

As stated in the Financial Administrative Rules (FAR), directives for carrying out Public Works has been developed and is expected approval by HMG/N soon. A management unit in the form of a steering committee with representation from the concerned Ministries is being established within MoPPW.

Besides above initiatives, other reform and improvement that are implemented or on going are:

- Public Construction Legislation
- DOR Strategy Document
- Act allowing Road Toll Collection to private parties in implementation
- Financial Administrative Rules 2056 first revision – improved version
- Institutional Strengthening and Training – HRD, environmental and socio-economic and management of mechanical training centre - on going
- Establishment of Highway Management Information System (HMIS), Road Sector Skill Development (RSSDU), Traffic Safety Unit (TSU), Geo-environment Unit (GEU) and Monitoring & Evaluation Unit (M & E).
- Capacity Building of Contractors through NMRCP, AHMP, EROM, PHU,TRIP, BUMP
- Planned Maintenance System (Strengthened Maintenance Division – SMD)

### **3.0 Tenth Plan – Approach Paper (Draft) and I-PRSP**

#### **3.1 Overall Goal/Purpose**

With consideration of nation's development growth and prevailing international market liberalization, it is imperative to cater the development for people of remote areas, socially exclusive and disadvantaged people. Appropriate methodology should be sought for resource mobilization, allocation and utilization to achieve sustainable economic growth. The main goal of long-term development concept is to alleviate poverty to a minimum (less than 10 %) and develop civilized, modern, well-informed, knowledgeable and skillful society.

##### **Overall Goal**

Living conditions of Nepali people (men and women) significantly improved at a sustainable manner.

##### **Overall Purpose**

Poverty incidence among Nepali help alienate party through (men and women) significantly reduced. In other words, the main objective of the 10th plan is to generating employment opportunity from development programmes and assure security to poor people of remote/rural areas.

##### **Major Issues and Challenges**

The major issues and challenges seen are lower growth in agriculture, low quality of technical education, increase in rural unemployment and under employment, low income of people employed in the overseas due to the lack of skills and high risks jobs to be carried out besides their exploitation, weak project screening, over-programs, project completion time overrun, weak project monitoring and evaluation including resources and physical progress in terms of quality and financial management, and low productivity and return.

The major problem is regional imbalance in development due to the lack of proper consumption of the resources in the region and greater difference in socio-economic infrastructure among different regions.

##### **Overall Strategies**

Broad-based economic growth, social sector development, targeted empowerment programme and good governance

##### **Purpose (of above Strategies)**

Regeneration capabilities of broad-based economic regimes sustainably strengthened, productive capabilities of human resources sustainably enhanced, productive capabilities of marginalized (deprived, disadvantaged, remote and isolated) communities sustainably enhanced and overall governance of national development process sustainably improved with increased transparency, accountability, pluralism and decentralization.

**Target** – poverty level to 30% and economic growth to 6.2 % in the tenth plan

#### **3.2 Road Sector in the Tenth Plan Approach Paper and I-PRSP**

The followings are the laid out main objectives and strategies in the draft Approach Paper:

##### **Objectives**

The main objective of the road sub sector will be to provide uninterrupted flow of goods and people with safety and transport services available at least cost, and help poverty alleviation effort and broad based economic growth including balancing of regional development through generating employment, providing

access to the market to the local products and accelerating the potential economic growth in other sectors like tourism, hydropower etc. The sub-objectives will be:

- Development of strategic road network (access to district head quarter and regional balance). And areas with significant socio- economic importance e.g. hydropower, tourism etc.
- Encourage private sector participation in the development of road network.
- Institutional capacity enhancement.
- Promotion of decentralized management
- Promotion of appropriate technology/ environmental management.
- Application of planned road maintenance system including performance based maintenance contract.

#### **Strategy**

- To build, extend and strengthen strategic road transport network to cater the traffic growth and improve level of service to reduce transport cost
- To introduce and extend plan road maintenance management system
- To create a sustainable road maintenance fund through the establishment and efficient operation of a Road Fund Board and initiating performance based maintenance contracting system
- To encourage private sector participation in the development of toll roads and road maintenance
- To classify roads as central, district and municipalities roads and redefine roles and responsibilities of various agencies.
- To fix road standard according to their category and discourage undesirable variation in per Km construction and maintenance cost of the roads in the same standard.
- To provide access/ improve rural accessibility including support in the tourism, agriculture sectors adopting labour based and environment friendly approach.
- To provide traffic safety and reduce traffic congestion in city roads & highways and vehicular pollution
- To develop, reform and strengthen institutional capacities of the government agencies, consulting and construction industries
- To make use of appropriate technology, IT and locally available resources for cost optimization
- To provide optimum benefit to the deprived local community through CBO and local people mobilization to generate employment and other development activities during construction and maintenance
- To create ownership in rural roads through sharing of costs

#### **Major activities/program**

- Priority will be given to construct District Head Quarter connections and strategic road network
- Construct roads to promote other sectors of economic importance like tourism, market centres, hydropower development and agriculture.
- Introduce & extend Planned Road maintenance activities like routine, periodic, rehabilitation works
- Full operation of Roads Fund Board for the collection of revenues and allocation of maintenance fund to the road works
- Restore strategic roads to maintainable condition preferably through performance based maintenance contract
- Create an inventory of road network of different level in the country with regular updating of traffic data and pavement condition and other road feature
- Policy and regulatory reform to create conducive environment for private sector participation
- Strengthening various units of DOR and MOPPW like GEU, M & E, RSSDU, Planning and Programming, HMIS and CTE etc. for increasing institutional capacity for efficient delivery of programs
- Continuous updating of integrated road transport planning

- Execute new construction of feeder road in physically remote and economically deprived area particularly from regional and geographic balancing point of view
- Maximize use of local resources and local community in road construction and maintenance in order to reduce construction and maintenance costs
- Use of environment friendly and labour based technique in road building

**Major expected outcome**

- District Headquarters and other tourist centers connected by roads
- Reduction in transportation costs
- Sustainable maintenance fund available
- Strategic roads in good condition
- Reduction in vehicle operating cost
- Reduction in travel time
- National and regional potentials increased due to road network to help contributing poverty alleviation and economic development
- A database for road planning and management and a Master Plan to bring existing rural roads to a serviceable condition.
- Inter-regional accessibility improved
- Agriculture product transported to the major market centres.
- Jobs created
- Social dimension of deprived community improved
- Least damage to environment
- Low cost local technology promoted

**4.0 Institutional Capability and Physical Infrastructure -Roads**

At present, 25 divisions and 5 development regions under Maintenance branch are responsible for operation and maintenance of all roads under DOR beside certain new road construction; meanwhile major construction works are managed under special project offices. The DOR head office has four branches – maintenance, planning & design, foreign aid and mechanical. The DOR has some the technical capacity and expertise to efficiently carry out the projects but will require some orientation and training on development and liberalized economic policy concept, multi-disciplinary approach that includes value management, social engineering and resources management particularly on financial/public expenditure aspects.

**5.0 Stakeholders in the Development**

The major stakeholders in the road development sectors are as follows:

- Central Authority - NPC, Ministries, Departments and Division Offices
- Local Authorities -Municipalities, District Development Committees, Village Development Committees
- Social Org. - INGOs, NGOs, CBOs, Social mobilisers
- Civil Societies
- Private Sector - Federation of Chamber of Commerce and Industry, Financial Institute, Suppliers, Domestic Consulting and Contracting Firms
- Bi-lateral and Multi-lateral Agencies (development agencies)

Their roles and responsibilities should be clearly defined based on who is most capable in handling the program and should be provided with necessary authorities and support facilities. This needs further exercise for working out details.

## 6.0 Major Road Projects and Program

Under tenth plan, major road projects will be donor funded mainly the World Bank, ADB, DFID and JICA, SDC including China, India, South Korea & OPEC. In the tenth plan, WB funded Road Maintenance and Development Project (RMDP) that includes 450 km of new roads, 162 km of rehabilitation and 66 km of periodic maintenance works. Similarly, within the forthcoming Plan, ADB and DfID is funding Road Network Development Project (RNDP) for the construction of 89-km new road, 210-km road improvement and 140-km periodic maintenance. About 400 km will be constructed under HMGN fund. All together, over 1700 km of roads and 200 bridges will be constructed/upgraded/improved and rehabilitated under various road categories within the 10th plan. In addition to the plan, it has been estimated to carry out over 700-km periodic maintenance work, 5000-km recurrent maintenance.

## 7.0 Road Project Prioritization Criteria/ Screening

An attempt has been made to prioritize the project on the basis of the contribution that each project makes to the main element of the Poverty Reduction as outlined in PRSP and tenth plan. The other elements are accelerating economic growth, provision of social services and infrastructure, targeted program and good governance. As per the criteria advised on NPC and MTEF sectoral outline (rating of 0,1,2,3 for poor, satisfactory, good and very good respectively and in between rating for boarder line, refer **annex 1** for details) and PERC recommendations, including the comments/suggestions provided by the participants of the workshop on Sectoral Development Paper cum MTEF of MOPPW organized on 18<sup>th</sup> January 2002, Kathmandu, the following revised criteria with their percentage weightage in 100 scale (*subject to further refinement*) are considered for prioritization of projects for the on-going, new and future projects:

▪ Project of national strategic importance/ relevant to national	20
▪ Project of sectoral strategic importance/ relevant to sectoral objectives	15
▪ Project attractiveness – rate of return of investment/viability/ cost effectiveness	15
▪ Justification of continuity of the existing projects	10
▪ Project sustainability	10
▪ Geographic and Regional Balancing	10
▪ People's participation/local level and community participation	5
▪ Utilization of local resources and technology	5
▪ Project with local importance - DDCs/Municipalities and VDCs (reverse marking)	5
▪ Possibility of stage/ phase-wise construction	5
	100

Following criteria will be applied for the prioritization of construction of both the continuing and new bridges

- links to the road network of strategic importance
- construction of bridge without building road access
- social & economic importance - viability
- stage of construction and investment level (in the case of continuing ones) to decide whether to continue or drop or slowdown

The possibility of bringing private sector participation should also be assessed before seeking funds from government and other sources for any road and bridge projects of new and maintenance nature.

## 8.0 Rolling Program Budgeting - MTEF

### 8.1 MTEF Concept and Adoption

An attempt has been made to prepare MTEF based on the following references:

- Interim Poverty Reduction Strategy Paper (I- PRSP)
- Tenth Plan - Approach Paper (Draft)
- Ninth Five-year Plan
- Mid Term Evaluation of Ninth Five-year Plan
- Progress report of FY 057/058
- Report of Public Expenditure Review Commission (PERC)
- Donor's Strategy and Country Assistance Documents
- Foreign Aid Policy and
- Available Sub-sector Documents like Policy, Plan and Programs

Due to the problem of internal peace and security, country's economic growth is not as desired and suitable environment for development is hampered as a result, the government is forced to curtailed development expenditure. This will also reduce government's ability to provide counterpart fund for donor-funded projects and programs. This has in fact challenged the fiscal discipline/ public expenditure management of the country that has resource constraint even in normal circumstances. It is in this context, the MTEF concept on the need for three-year forward planning, programming and budgeting system can be a laudable step towards establishing better planning practice. The adoption of this approach will certainly result in the judicious utilization of limited and scarce resources in prioritized projects leading to optimal use of the available resources in the country and help meeting the national and sectoral objectives. Moreover, as the programmes and projects are well tied-up with resources, the element of uncertainty in the resource availability for the future is expected to be considerably minimized by this approach. This MTEF will help to translate the tenth plan into action program to achieve the target set. There is also a greater possibility of convincing donors directing their funds towards prioritized programs and projects to meet the national goals.

Despite all these positive side of the picture, institutionalization of MTEF can be a challenge particularly to replace the existing planning practices by this approach more or less abruptly. The other equally important issues to be resolved are related with poor and weak database for forward planning. The existing established planning practices probably might feel it difficult to internalized as quickly as desired by MTEF.

### 8.2 Three Years' Target (MTEF)

The expected output of the road sub-sector in the three-year rolling program and tenth plan are as follow:

#### Expected Output in MTEF (3 Yrs) and Tenth Five Year Plan (Tentative)

Road Sub-sector/description	3 yrs. (MTEF) target	Tenth five yrs. target (Total)
- New Road construction in Km	375	650
- Upgrading (in Km)	427	711
- Road improvement & Rehabilitation (in Km)	293	370
- Periodic maintenance (in Km)	466	710
- Motor able bridge construction- all type in no.	150	240
- Additional no. of Dist. Hqtrs linked by road access	5	7

### **8.3 Cost Estimate, Project Prioritization Assessment and Budget Allocation**

#### **Cost Estimate**

The average unit rates are taken from the DOR's road inventory survey of Eastern Development Region & other historical data of completed projects and are applicable only for projects with HMGN financed. The cost of the projects varies very much among donor's funded projects, even for projects of the same nature. The cost of earth, gravel and blacktop roads with single or double lane and also in different topography has different unit costs. *The details on unit cost estimates are prepared separately.*

#### **Project Prioritization Assessment**

Availability of limited resource necessitates the need for project prioritization and adoption of MTEF as a tool for efficient utilization of resources in the prioritized area/projects that will help achieve the target set.

The criteria mentioned above are applied for the assessment of projects ranking. During the initial assessment, all these criteria were given equal weightage and first round of prioritised list prepared. However, the different weightage has been worked out based on the feedback collected during the MOPPW –MTEF workshop held on 18<sup>th</sup> January 2002 for more realist exercise of project/program prioritization. The revised project scoring and ranking with categories of projects prioritized are presented in **Annex 1**.

The road projects are broken into Part I and II and further the Part I activities/projects are grouped as General comprising of regular expenditure items including regular maintenance of roads; bridge and machine Core and Rolling Projects with a total of 27 and 21 projects respectively and comprising of highways, feeder roads and other roads; Hulaking Roads; and bridges of different type and category. The projects listed under the heading -core and rolling projects have scoring in the range of 80 and above and hence all those projects are somehow needed to continue.

The Part II type of projects are grouped into other projects of priority 1, 2 and 3 with DOLIDAR roads and are needed to further look into detail before making any decision, since those projects are also based on 20 Years Road Plan (draft) which include projects of nature/phase like study, detail design and investigation and actual construction. Some of the projects may be possible to dropped or slow down or change the way of implementation after the acquisition of proper project information and prioritization. However, the majority of the projects listed is of supportive to national and sectoral goals and are needed to continue to help achieving the tenth plan outputs.

In case of bridge the number has been reduced from some 510 to 240 and further reduction exercise is still underway. Further, some of projects are on pipeline for financial support and some are under study. Hence, the final list of projects is subjected to change later.

#### **Budget Allocation**

Refer to the table below "3 years Rolling Budget" next year (Fy 2059/60) budget is allocated as per the budget ceiling provided at this stage to projects under Part I, Priority I (PI) and additional budget is requested for the same year for the same projects under Part I, Priority II (PII) as explained in Project Prioritization Assessment above. The total budget estimated for the next fiscal year is 8407 millions. The budget estimates of Fy 2060/61 and 2061/62, are in the range of 8906 and 9435 millions respectively. The total of three years comes out to be Rs. 26750 millions. Refer **Annex 2** for details on budget allocation

### 3 YEARS ROLLING BUDGET (MTEF) (Road Sector, MoPPW)

(In '000)

Project Name	Budget allocated in 2058/59	Rolling Year 1 FY-2059/060								Rolling Year 2 FY-2060/061	Rolling Year 3 FY-2061/062
		Priority I (PI) Part I A				Priority II (PII) Part I B					
		HMG	Grant	Loan	Total	HMG	Grant	Loan	Total		
<b>Part I total</b>	5401226	2510000	881000	885000	4276000	1934779	574980	858925	3368684	8090349	8568895
1. GENERAL	1436426	1053300	0	0	1053300	437000	0	0	437000	1572795	1700530
2. CORE PROJECTS	2800300	577556	653580	872925	2104061	412556	461180	850875	1724611	4266589	4177656
3. ROLLING PROJECTS	420500	298563	20700	12075	331338	298563	13800	8050	320413	602350	568780
4. HULAKI ROADS	100000	7000	0	0	7000	98000	0	0	98000	110000	112000
5. BRIDGES	644000	573581	206720	0	780301	688660	100000	0	788660	1538615	2009929

Project Name	Budget allocated in 2058/59	Rolling Year 1 FY-2059/060								Rolling Year 2 FY-2060/061	Rolling Year 3 FY-2061/062
		Priority III (PIII) Part II A				Priority IV (P IV) Part II B					
		HMG	Grant	Loan	Total	HMG	Grant	Loan	Total		
PART II Other roads with priority I, II and III including DoLIDAR roads	387500	381613	0	0	381613	381613	0	0	381613	815940	866604

<b>Grand Total (Part I + Part II)</b>	5788726	2891612	881000	885000	4657612	2316391	574980	858925	3750296	8906289	9435499
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<b>Regular Expenditure</b>	210635	242600	0	0	242600	0	0	0	0	260000	290000
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Note: General item above includes regular expenditure

## 9.0 Finding, Implication, Donor's Readjustment and Implementation

### Findings and Scenario

The integrated approach was missing while the planning process was underway in terms of data management and in the preparation of MTEF.

After the project prioritization by applying defined prioritization criteria as mentioned above, it is found that some of the on-going road and bridge projects are on non-strategic road network. Mainly due to the pressure from the political bodies that is heavier in roads and bridge sub-sector compared to other sectors and they are more of a local in nature/non-strategic roads. The locally funded projects are being implemented with very low budget allocation, which can not produce any significant physical progress within the reasonable project period,

Further, the substantial component of HMG/N fund has been used/ is required as a counterpart/matching fund. This situation will continue for whole of the tenth plan period as the major projects of WB, ADB and DfID are already in implementation.

The human resources and technical capacity built up through donor's assistance have not been sustained and institutionalized as regular activities.

Refinement of the unit costs would also be required for the given projects. The numbers of projects can be adjusted according to finalized budget ceiling by dropping/slowing down low priority projects or reducing the programmed length of projects and or reviewing phase/stage construction proposed for certain projects.

The government had already decided to hand over city roads to concerned Municipalities particularly the city/urban roads of Kathmandu Valley, which has not taken place. The DOR supposed to provide only the technical support until certain time.

Similarly, the district roads have not been handed over to MOLD until now, the decision of which was taken few years back. The DOLIDAR under MOLD is already established to provide technical backstopping to DDC who are supposed to look after those roads.

The DOR under MOPPW is responsible for National highways and feeder roads only, as per the decision made before. It is not possible to concentrate and achieve its objective and target without handing over urban and district roads to the relevant agencies.

The total list of projects are provided in Annex-2 and are covered under project prioritisation assessment and budget allocation, section 8.3 in details. The projects have been worked out based on the previous annual program and budget allocation and are prioritised as mentioned above. However, additional funding is required in road sub-sector as the budget ceiling provided is low even compared to previous years. Otherwise, the target set in the tenth plan will not be possible to achieve.

### **Implication**

Major policy and institutional changes will not require for the adoption of this approach. However, changes in the mode of operation and departure from the prevailing planning practices are required to enable MTEF to function effectively.

Although DOR is responsible for SRN roads, but the question is when the district roads and city roads will be handed over to respective authorities.

Special attention and consultation will be required while implementing the labor based and community based project.

### **Donor's Re-adjustment**

The necessities of donor's readjustment are not seen with significance except, in case of few projects of road network development. If donors are supportive in program level rather than in project level, it would be more helpful to achieve national and sector objectives.

### **MTEF - Implementation**

The Project Implementation Plan (PIP) providing a description of the project and all of the arrangements for project management, use of consultants, construction contracts, financial accounting, progress reporting, and monitoring and evaluation will be required to use as a guiding document by the executing agency, implementing agency, Project Manager and donor to plan, monitor and evaluate the project.

The PIP should be prepared in two stages:

- A preliminary PIP providing sufficient essential information to enable the sectoral agency, NPC and MOF to appraise and approve the project.

- An expanded PIP to use after project is approved and included in the sectoral agency's programme, containing details needed for implementation. For donor-funded projects and large scale HMGN projects, the PIP should be prepared following a prescribed format with require detailed descriptions of arrangements for project management, reporting, participation of stakeholders, etc.

The PIP should be divided into three major sections:

- Project description
- Implementation arrangements
- Implementation plan

### **Project Description**

This should include project's basic information, objectives and scope, activities with output of each components and ways to achieve them. Further the project description should also cover financial and economic analysis, assumptions and risks and financing plan including source of funding, expenditure and fund requirement and forecast.

### **Implementation Arrangements**

A clear-cut implementation arrangement will be required in terms of organization responsible for the Project. The project manager should be assigned with clearly designed delegation of authority and line of command and responsibilities of other concerned especially in complex projects. For example defining levels of authority for approval of design, cost estimates, shortlisting of consultants, preparation of terms of reference, proposal evaluation criteria and procurement of goods and works in conformance with the FAR etc.

Further the functions and responsibilities of consultants, contractors and equipment suppliers should be made clear especially where multiple consultants and contractors are involved. In conditions of contract for works or goods, the Employer, Employer's Representative, Engineer, Engineer's Representative, Contractor, Contractor's Agent etc. shall be identified. The powers of the Engineer and Engineer's Representative shall be clearly specified.

The PIP should identify key project stakeholders as well as agencies whose cooperation is necessary. This may include agencies at the central level (other line agencies, AGO, FCGO), district level (DDC, CDO, other line agencies) and the local level (VDCs, NGOs, users groups).

The PIP should describe the coordination arrangements, which will be established with these stakeholders to gain their cooperation in the design, implementation and operations/ maintenance stages of the project.

A Project system should be made for project financial accounting, disbursement and auditing. In domestic projects the procedures to be followed are defined by FAR 2056

In donor-funded projects, the executing agency / implementing agency should adopt project management and accounting procedures which conform to all the parties involved.

### **Implementation Plan**

Plan and Schedule should be prepared covering principal tasks or activities in each component and their planned start and completion dates. For example activities such as land acquisition, resettlement action plan and coordination with utilities including detailed plan and schedule covering all procurement actions for the appointment of consultants and contracting for works and goods.

Specific Actions should be prepared that include any specific actions which will be required to achieve the project's development impact objectives. Such actions may include a resettlement action plan (RAP), environmental management action plan (EMAP) and other plans to mitigate undesirable impacts on project affected groups.

#### **Implementation Measures**

In order to internalize MTEF as quickly as possible, the following implementation measures should be adopted simultaneously.

- Regular updating of data bases particularly relating to programmes, projects and budget.
- Training of manpower to familiarize with this new concept.
- Regular monitoring and supervision to observe whether or not the progress is moving in the right direction as per MTEF concept.
- Annual evaluation of performance to find out the real issues and challenges in the adoption of MTEF concept and lesson learned.

#### **Monitoring and Evaluation**

Project's Impact, progress and financial indicators should be defined for monitoring and evaluating the development impacts of the project with source of information and means of verification; performance indicators in terms of delivery of inputs and achievement of measurable outputs. It should clearly state the source of information and the frequency of monitoring; and indicators to assess the project's budgetary and financial health, indicating source of information and frequency of monitoring.

The possible ways to progress monitoring and evaluation of project work being done at different level and phases are:

- Regular quarterly progress monitoring and reporting
- On-site supervision and inspection of works
- Workshop

There is nothing new about prevailing regular quarterly progress reporting for all government agencies and are familiarized with this system. The second category of tools such as on-site supervision and inspection of works are carried out particularly in the major construction and planning related works as and when required. However, the third one, that is, workshop, is new approach being put into practice by the department since last few years and this has proved useful and effective to review and evaluate the works. The workshop brings into focus not only the progress of works as per regular annual programme but also discusses seriously the issues and problems (financial, administrative etc.), hindering the progress of the work. These efforts, however, calls for further refinement and strengthening in order to get desired result in the future.

**Project Public Auditing** system should be introduced as a part of audit activities, which includes auditing in total aspects of project.

**Post –Evaluation for Impact Assessment** – Project impact assessment should be carried after its completion to find out whether the project has provided impacts that were expected during the formulation. The lesson learnt from the project should be considered in the implementation of the future projects.

## 10.0 Conclusion and Recommendation

Data management is required for a good planning exercise. Hence, there should be a system for data acquisition, data entry and data management including information dissemination.

The clear-cut policies and legal frameworks should be brought to create conducive environment for private sector mobilization in the road infrastructural development. So that the government's financial gap can be reduced to a certain extend.

The well-formulated plans and programs have no meaning if its implementation part is weak. The past experience has clearly indicated that even the well-formulated plans and programs also suffer during the implementation phase due to a number of reasons including the lack of political commitment. These problems are further compounded by prevailing poor programming and budgetary practices ultimately leading to poor portfolio performances. Therefore there needs a full fledge commitment from the concerned sectoral agencies in the improvement of the sector portfolio performances through the establishment of an effective and efficient decentralized institutions and their capacity development to absorb the external resources. In this aspect, institutional strengthening of various units including, planning & program budgeting, M and E should be emphasized.

It is expected that the present MTEF (Medium Term Expenditure Framework) approach will resolve most of the problems at least in the programming and budgeting front as it will plan ahead both prioritized programs and projects on the one hand, and budget to implement them, on the other. The effectiveness of this approach, however, is highly dependent upon the ability of all planning units and project implementators operating at different levels of the government departments and ministries. MTEF presupposes advance planning and this in turn demands updated data and information at different levels. Equally important thing to bear in mind is the issue of plan and program formulation and budgeting method deeply rooted in the minds and hands of the people as if it is a universally established model. Which may be difficult to change overnight. Therefore, how effectively and quickly MTEF addresses these challenges and issues determine the ultimate success of this approach in our context.

### Recommendations:

- ☞ The process of adaptation should be gradual to enable the existing established planning system operating at various levels to absorb and digest it
- ☞ Develop and circulate booklet (in Nepali) dealing with MTEF concept and methodologies
- ☞ Inject in all offices the habit of collecting, processing, compiling, updating and publication of data and information required for MTEF exercise
- ☞ Make provisions in the framework to accommodate some unforeseen projects in the future.
- ☞ Advocate and encourage the need for advance and forward looking planning approach in all departments and ministries
- ☞ Analyze the MTEF tool in the light of political changes and political interference including internal security situation in our context
- ☞ Rebuilding of system for project identification and feasibility and environmental studies before proceeding for incorporation toward budget program
- ☞ Reorganizing program budgeting of three years rolling concept for resources optimization and output maximization to achieve national and sectoral objectives
- ☞ Integration of information and communication system for creating efficient working through sharing of resources, and information (paper less concept) through use of computer and networking
- ☞ Strengthening existing HIMS for continuous updating of information on roads and bridges
- ☞ Strengthening existing M and E unit for periodic progress monitoring and evaluation of projects
- ☞ Institutionalize project auditing system of major projects in all aspects by public
- ☞ Regular publication of road sub-sector information to public about plan and program