

Introduction

1. General

The Department of Roads (DoR), Ministry of Physical Infrastructure and Transport have been publishing 'NEPAL ROAD STATISTICS' (NRS) since 1998 in two years interval.

This document 'STATISTICS OF STRATEGIC ROAD NETWORK' is the continuation of previous publications, and contains data and maps for the year up to the end of fiscal year 2070/071 BS (2013/2014 AD) of the Strategic Road Network (SRN).

This document has been organized as follows:

- Foreword from the Director General
- Contents/Abbreviations
- Road Network Data
- Map of the country with SRN 2013/14 AD
- Data and Maps of Development Regions, Zones and Districts
- List of Main Bridges along SRN
- Road-wise District Coverage
- Schematic Diagram of SRN, 2013/14 AD

2. Geographic Information System (GIS)

This document is prepared based on Geographic Information System (GIS) utilizing ArcGIS system from ESRI.

GIS is a modern and highly efficient computer based tool and database management system which performs data accumulation, retrieval, updating, analysis and producing of spatial data defined in thematic layers. A well designed GIS permits the integration of data and has the ability to associate and manipulate diverse sets of spatially referenced data that have been geo-coded to a common referencing system.

The road GIS database has been prepared using calibrated route feature of the ArcGIS. The start and end chainages are provided to each of the routes and the intermediate chainages are determined through interpolation. This way each of the routes presents the true (measured) lengths rather than the "shape" lengths straight from the geometry. A customized ArcGIS, developed under the SWRP-PIP study has been used to prepare the statistics of the roads for the districts by automatically generating true lengths clipped by the districts. The zonal & regional databases are created using the sum of the district database.

Most of road network have been created from the topographical maps of Nepal (1:25,000 & 1:50,000 scale). Since the topographical maps were based on 1992 & 1994 aerial photographs, there are many roads which alignment could not be obtained from the topographical maps. In these cases, existing road alignment are prepared based on the actual survey data based on the national grid coordinate system and GPS survey works. Similarly the planned and under construction roads are mapped based on the various feasibility and design reports.

3. Data Tables and Maps of Road Network

Data tables and maps of each Development Region have been compiled and presented separately. Data tables and maps of corresponding districts falling under the Development Regions are also presented in detail.

The SRN having road reference are based on the recent cabinet decisions.

The road categories included are:

- Existing SRN
- Under Construction SRN
- Planned SRN
- Postal Highway
- Mid Hill Highway

A brief details of each category mentioned above are given in following sub-sections.

3.1 Existing SRN

Existing National Highways and Feeder Roads (2013/14) falling under Bituminous/Blacktop (BT), Gravelled (GR) and Earthen (ER) road categories have been thoroughly checked and incorporated in this document with their road reference number and link codes.

3.2 Under Construction SRN

All roads falling under SRN which are presently under construction have been included in this document. The total length, estimated by concerned agencies, has been adopted. The actual length which would be known only after the completion of the construction has to be adjusted in the next publication of the document.

3.3 Planned SRN

Department of Roads has planned to construct several roads having National Strategic Importance in coming years and they have been included here as Planned Roads. Further DoR is also planning and have put forward a proposal to include several existing roads of other categories into Strategic Road Network, and they are categorized as follows:

- Proposed National Highway from existing other road category
- Proposed Planned National highways
- Planned Feeder Roads
- Proposed Feeder Roads from Existing Other Road Category
- Proposed Planned Feeder Road

The estimated length of planned National Highways and Feeders Roads of above mentioned categories and maps have been included as Planned Roads in this document.

3.5 Postal Highway (PR)

The existing Postal Roads have been identified from the Topographical Maps (1:25000) and information also has been obtained from Divisional Road Offices (DROS) and the total length of road in each district and region have been included.

3.7 Mid Hill Highway (MH)

The existing road network, under construction and planned roads falling under the Mid-Hill Highway category have been separately included.

3.8 District Roads

Numerous village roads, agriculture roads and district roads have been constructed in the recent years through effort of various organizations which falls under the jurisdiction of different local bodies and departments. A systematic and reliable database, however, is not available in a consolidated form, hence these are excluded from the database and map. However, the DoLIDAR is preparing comprehensive District Road Network map updating works and soon will be available through web mapping portal along with this SRN.

4. Data of Bridges

The data of Bridges falling under SRN have been compiled from the recently completed Bridge Management Infrastructure System (BMIS).

5. Availability of Digital Data

The road network produced in hardcopy in the present document is also available in digital format in ESRI Shape file format in route feature class along with the attribute tables. The present document is also available in PDF format and can also be downloaded from the www.dor.gov.np. A web mapping portal is also available through the DoR website which provides interactive map viewing and data extraction.