TRANSPORTATION IMPROVEMENT PROJECT

IN

THE KINGDOM OF NEPAL

October, 1978

JAPAN INTERNATIONAL COOPERATION AGENCY

Preface

In response to a request of His Majesty's Government of Nepal, the Government of Japan decided to cooperate on the Transportation Improvement Project in the Kingdom of Nepal, and the Japan International Cooperation Agency (hereinafter referred to as "JICA") carried out a survey for the Project.

The JICA dispatched to the Kingdom of Nepal and India from April 15 to 30, 1978, the survey team which consisted of seven persons headed by Yoshinori Mizuta, Director of Highway Division, Road Transport Bureau, Ministry of Transport. The team conducted the survey with priority on the truck and bus transportation including conditions of the unloading at the port of Calcutta of cargo to be sent to Nepal, overland transportation between Calcutta and Kathmandu, passenger and cargo transportation mainly in Kathmandu, and the facilities related thereto.

Finally, I wish to express my deep appreciation to the officials concerned of His Majesty's Government of Nepal for their helpful cooperation extended to the survey team.

October, 1978

Shinsaku Hogen

President

of

Japan International Cooperation Agency

Table of Contents

		Page
1.	Purpose of the survey	1
2.	Plan for improving truck transportation capacity	1
3.	Plan for improving bus transportation capacity	4
4.	Survey period and members of the survey team	9

1. Purpose of the Survey

Transportation in the Kingdom of Nepal is handled by traditional porters and carts, in addition to automobiles, airplanes, railroad and ropeway, etc. In the future, however, as a result of the improvement of infrastructure such as trunk roads, airports, etc., as well as of the increase in automobiles, the modern transportation will grow to a large extent.

This survey team, based on the present conditions in the Kingdom of Nepal, conducted a preliminary survey principally of truck and bus transportation with a view to identifying the methods for improving the transportation capacity.

As a result of this survey, the present main problems and strategy for future development are described in this report.

2. Plan for improving truck transportation capacity

2-1 Present conditions of transportation

1) Two-thirds of the cargo flow in Nepal is handled by the traditional cart, porter, etc. Upon completion of the East-West highway, the volume of truck transportation is expected to increase.

2) Nepal Transport Corporation (hereinafter referred to as N.T.C.) transported goods of about 32,000 tons in 1975 ~ 76, however increase in the volume of tranportation following 1968 ~ 69 has shown little noticeable change.

3) The volume of cargo flow in the Kathmandu Corridor is estimated at about 250,000 to 300,000 tons, of which N.T.C. share is only about 10 per cent. The volume of yearly cargo transport between Calcutta and Kathmandu is only about 1,000 ~ 1,500 tons, of which Nepal Carriers handles a major part.

4) Birganj is now the central base for N.T.C. truck transportation. Its future development as a trucking center is possible due to its

favorable location.

5) N.T.C. transports transit cargo from Calcutta by the Leyland container truck, however, this transportation system is in need of improvement.

6) The road between Hetauda and Kathmandu is not good for transporting a large volume of cargo. The road requires improvement.

2-2 Advantages and the problems for the improvement of the truck transportation capacity

1) In order to reinforce the transportation capacity between Calcutta and Kathmandu, N.T.C. is considering the operation of trailer trucks or container trucks between these cities.

2) Advantages of trailer or container trucks are as follows:

i) Advantages for consigner:

a) Compared with railway

· Theft and damage to cargo are reduced

· Transportation time is halved

· Reliable operation is expected

· Liability for loss of cargo is clear

b) Compared with open truck

· Theft and damage to cargo are reduced

ii) Advantages for N.T.C.:

N.T.C.'s container transport will be expanded, resulting in higher efficiency and lesser cost.

3) On the other hand, the problems are as follows:

i) Because of the road condition between Birganj and Kathmandu, the size of vehicle restricted to a payload of under 8 tons and a wheelbase of 5.5 meter. Therefore, the cost reduction by introducing large size vehicle for this distance may not be possible.

ii) Regarding N.T.C.'s present truck operation, there are some points

which should be improved to develop demand and to provide safe, punctual and inexpensive transportation through efficient truck operation and marketing efforts.

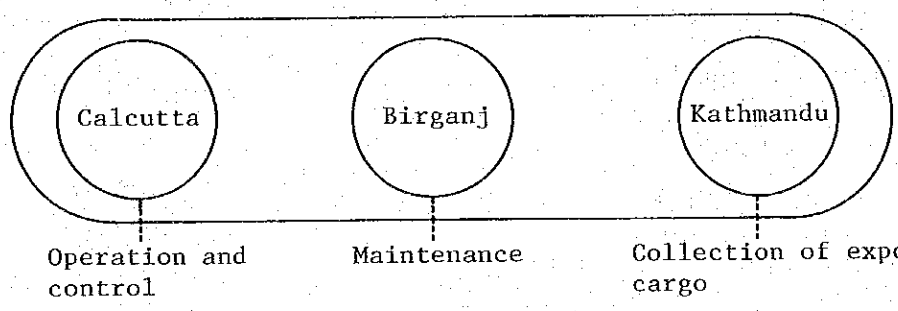
2-3 Improvement of the truck transportation capacity

1) With the completion of a road network, and with economic development, the demand for road transportation will increase. Therefore improvement of truck transportation facilities to cope with this demand is necessary.

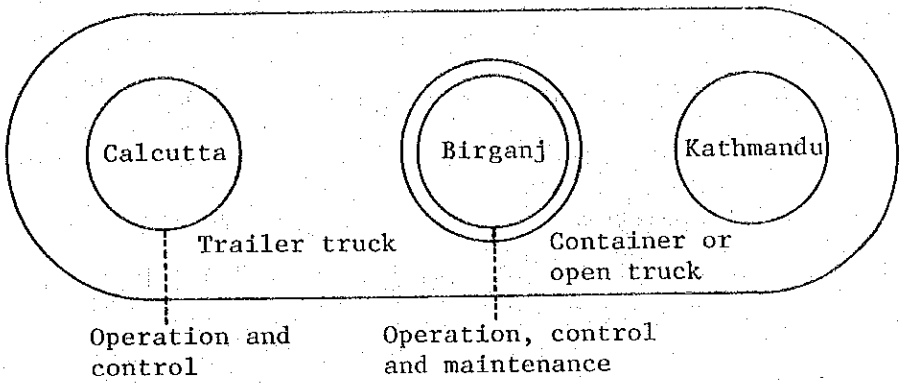
2) The capability of transit cargo transportation between Calcutta and Nepal should increased gradually, and in parallel with it, improved marketing is necessary.

3) Two ideas for improving the truck transportation system between Calcutta and Nepal

A. At present vehicles are dispatched to Calcutta only after the arrival there of cargo. More efficient operation of the system will become possible by establishing a center of operations.



B. Transportation by 10 ~ 12 ton trailer truck between Calcutta and Birganj, while using existing truck between Birganj and Kathmandu.



Advantages in this case are as follows:

- Without loss of time for loading, efficient operation of driver and truck is possible.
- By introducing large vehicle, the transportation capacity between Calcutta and Birganj is strengthened and made more efficient.
- Problem in this case is as follow: The transhipment of cargo is necessary at Birganj.

4) It is necessary to complete the trucking center at Birganj as a pivotal point for cargo transportation in the Kingdom of Nepal. Birganj is located at the juncture of the East-West Highway which is the national truck line and the Kathmandu Corridor, and has already maintenance facilities, warehouses and a truck yard.

5) With the introduction of a new type of vehicle, it is necessary to reinforce and more fully equip the present maintenance facilities with machinery, and to conduct training and study in equipment technology.

6) In order to ensure competitive transportation cost and to attract clients, improvement of management is necessary.

3. Plan for improving bus transportation capacity

Outline of the bus transportation system.

1) The primary means of passenger transportation in Nepal is the bus. The bus transportation system comprises intercity long-distance service on the nationwide trunk line, and intracity service.

2) In addition to N.T.C., the organizations which operate bus transportation are Sahja Yatayat which is semi-governmental, and small private companies almost which operate one vehicle.

(I) Plan for improving the transportation capacity of intercity long-distance bus

(I)-1 Present transportation conditions

1) The main routes are established along the trunk road network which links Kathmandu with Birganj, Janakpur, Pokhara and Kodari, etc.

2) Operations are especially frequent between Kathmandu and Birganj. Private companies hold more transportation share than N.T.C. and Sahja Yatayat on this route. Especially on the Kathmandu Corridor, they hold nearly 70 ~ 90%.

3) The long-distance bus has a fixed number of seats, and the main routes, such as between Kathmandu and Birganj, and between Kathmandu and Pokhara, have nearly 100% passenger efficiency. On the other routes, passenger efficiency is approximately 50%.

(I)-2 Advantages and problems for the improvement of the intercity long-distance bus transportation capacity

1) N.T.C. is considering to strengthen the presently operated routes for the long-distance bus and to develop local services by establishing new routes upon completion of the trunk road network.

2) Advantages of improving the intercity long-distance bus transportation capacity are as follows:

i) The living environment is improved by the consolidation of bus transportation system which is the primary transportation means for passengers.

ii) A substantial transportation system is secured which is less expensive than air travel and is not affected by the weather.

3) On the other hand, there will be the following problems:

i) Since the intercity long-distance bus service brings adequate returns, the private companies have an advantage in the market share even at the present time, and it is supposed that they will have more market share arising from future increase in demand.

ii) There remains several problems to be improved by N.T.C. in the fields of management and operation including intracity bus service.

(I)-3 Improvement of the intercity long-distance bus transportation capacity

1) Regarding the question whether or not the intercity long-distance bus system is to be strengthened, it is thought that, due to existing problems caused by competition from private companies, the allotment of duties and function to N.T.C. in relation to those to private companies should be clarified.

2) As a part of the strengthening of the intercity long-distance bus system, it is necessary to complete bus terminal facilities, bus stops and gasoline stations, etc.

(II) Plan for improving the transportation capacity of intracity bus

(II)-1 Present urban transportation conditions in Kathmandu Valley

1) The urban transportation in the Kathmandu Valley with a population of about 600,000 is done by the bus, mini-bus, temp (5 ~ 6 person capacity, small three-wheeled automobile), taxi

and tricycle.

2) Main urban transportation services are rendered by the auto bus operated by N.T.C., Sahja Yatayat and private companies, and by the trolley bus operated by N.T.C.. It appears that N.T.C. handles nearly half of all the means of transport the trolley bus, and Sahja Yatayat and private companies nearly one fourth respectively.

3) Bus routes extend radially to the suburbs of Kathmandu from Ratna Park which is the center of the city.
The trolley bus route links Teku with Badgaon.

4) The crowded bus is carrying passengers 250% of the capacity (about 125 passengers on a 50 seats bus) at peak time.
While the bus carries passengers 80% of the capacity at off-peak time, it runs fully seated in the central area of Kathmandu all through the day.

5) The mini-bus carries a good many passengers, mainly at peak time to make up for the inadequacy of the auto bus capacity. The temp is said to carry only one per cent of the total passengers.

(II)-2 Advantages and problems for the improvement of the intracity bus transportation capacity

1) Mention was not made by N.T.C. about the improvement of intracity bus transportation capacity, but this is one of the most talked about subjects in Nepal.

2) The advantages of improving intracity bus transportation capacity seem to be as follows:

i) The crowded passenger transportation arising from low capacity will be eased, regular bus time tables will become possible and service standards will be improved.

ii) By streamlining the complicated city traffic system in

Kathmandu with the bus as the primary means, the traffic situation in the city will be improved.

3) On the other hand, problems are as follows:

i) N.T.C. which is playing the leading role in the consolidation of city traffic system is in need of clarifying its policy for the intracity bus transportation service.

ii) In the light of Sahja Yatayat which runs mainly the intracity bus and is making a profit every year and of the operating conditions of the vehicles owned by N.T.C., there seem to be a good many points for future improvement of N.T.C.'s management.

iii) There also seems to be a good many points for future improvement of N.T.C.'s auto bus maintenance which is operated by the trolley bus center with insufficient use of machinery.

(II)-3 Improvement of the intracity bus transportation capacity

1) Improvement of the intracity bus capacity in Kathmandu is an urgent need in order to meet the demand for transportation and for the comprehensive city traffic system.

2) Sahja Yatayat is presently operating its intracity buses. Therefore, in order to strengthen N.T.C., it is necessary to clarify the responsibility of N.T.C. in the urban traffic system and the function to be assigned to Sahja Yatayat.

3) It leads to sound management of N.T.C. to reinforce the intracity bus transportation system which now shows a deficit. In the long run, the sound management brings larger profit to N.T.C. than the reinforcement of intercity long-distance bus transportation system which is profitable now.

4) It is necessary to carry out a survey to understand precisely the urban traffic demands in Kathmandu, and to rearrange the

city routes based on the result of the survey. It is necessary to improve the bus service by assigning buses predominantly to trunk routes.

5) It is necessary for N.T.C. to develop ideas for improving future management.

6) The present maintenance facility for N.T.C.'s auto bus is insufficient. It must be considerably strengthened. In addition, training and research in technology is necessary.

7) It is also necessary to complete bus stop facilities for passengers.

4. Survey period and members of the survey team

The survey was carried out between April 15 and 29, 1978.

April 15 ~ 19	Calcutta
April 19 ~ 29	Kathmandu and Birganj

The team members who participated in the survey are as follows:

Mr. Yoshinori MIZUTA (Leader)	Director, Highway Division, Transport Department, Road Transport Bureau, Ministry of Transport
Mr. Takashi INOSE	Deputy Director, Passenger Transport Division, Transport Department, Road Transport Bureau, Ministry of Transport
Mr. Masao OMATSU	Deputy Director, Engineering Division, Motor Vihicles Department, Road Transport Bureau, Ministry of Transport
Mr. Tomoo AOYAGI	Assistant Director, Second Economic Cooperation Division, Economic Cooperation Bureau, Ministry of Foreign Affairs

Mr. Hiroshi HOTTA	International Development Center of Japan
Mr. Haruhiko IMAI	International Development Center of Japan
Mr. Yushi SAITO	Development Survey Division, Social Development Cooperation Department, Japan International Cooperation Agency