



MONGOLIAN LINKAGE TO ASIAN HIGHWAY NETWORK, ITS PRESENT AND FUTURE

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Asian Highway Network

- In 1959, United Nations Economy and Social Commission for Asia and Pacific region has initiated “Asian Highway” project to bring the world countries closer together and to promote trade, travel and better standards of life in larger freedom .
- In 1960s, 1970s and 1980s remarkable progress was achieved as developing the domestic road network and transit transport in some Asian countries with their active effort. A large scale of economic growth has been noted in the Asia and Pacific region since Asian highway project starts.
- From 1990, the implementation of “Asian Highway” project is intensified. Because political barriers which was separated world countries were reduced and the economic globalisation is getting active.

- The route selection to be joined to the Asian Highway Network has been made with consideration of UNO target such as:
 - to connect the regional centers for promotion of international transport and regional integration,
 - to connect the main industrial and agricultural centers for promotion links between places of economic activities
 - to connect main sea and river ports for integrate land and sea transport networks
 - to connect major tourist attraction for promotion of use of Asian Highway by travellers

Asian Highway Design Standard

Highway classification		Primary (4 or more lanes)				Class I (4 or more lanes)				Class II (2 lanes)				Class III (2 lanes)			
Terrain classification		L	R	M	S	L	R	M	S	L	R	M	S	L	R	M	S
Design speed (km/h)		120	100	80	60	100	80	50		80	60	50	40	60	50	40	30
Width (m)	Right of way	(50)				(40)				(40)				(30)			
	Lane	3,50				3,50				3,50				3,00 (2,25)			
	Shoulder	3,00		2,50		3,00		2,50		2,50		2,00		1,5 (2,0)		0,75 (1,5)	
Median strip		4,00		3,00		3,00		2,50		N/A		N/A		N/A		N/A	
Min. radii of horizontal curve (m)		520	350	210	115	350	210	80		210	115	80	50	115	80	50	30
Pavement slope (%)		2				2				2				2-5			
Shoulder slope (%)		3-6				3-6				3-6				3-6			
Type of pavement		Asphalt/cement concrete				Asphalt/cement concrete				Asphalt/cement concrete				Dbl. bituminous treatment			
Max. superelevation (%)		10				10				10				10			
Max. vertical grade (%)		4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7
Structure loading (min)		HS20-44				HS20-44				HS20-44				HS20-44			

Necessity to join to Asian Highway Network and Government Policy

- Mongolia is a landlocked country surrounded by mountain ranges and stretches in vast territory of 1.5 million km square between Russian Federation and People's Republic of China. International cooperation and development of efficient transport network reachable to the countries in the region and other continent is one of the important issues for further development of country.
- For the country surrounded by land, it is beneficial to have reliable connection of road transport link to the neighbouring countries and other third countries and to actively promote the international transit transport through the country.
- The Government of Mongolia promotes "Asian Highway" project from the beginning and actively participates in the activities organized by ESCAP for improvement of road transport.
- Between 1991-2004, the representatives of Mongolia have attended in approximately 10 seminars and meetings concerned on determination of Asian highway routes, development of uniform road design standard and discussion of Intergovernmental Agreement Draft etc. In Mongolia, we have organized the forum twice in presence of regional experts for Asian Highway.

The Government of Mongolia agreed to be connected to the Asian Highway Network with following links by Intergovernmental Agreement in 2004:

AH-3 route. It starts from Tanggu harbour in Tianjin, P.R.C passing Beijing – Ulaanbaatar – Ulaan Ud, Russian Federation. The section of AH-3 in Mongolia is 1041 km road from Russian Border – Altanbulag – Darkhan – Ulaanbaatar – Nalaikh – Choir – Sainshand – Zamiin Uud – P.R.C border and is a main vertical altitude road.

AH-4 route. The AH-4 route starts from Novosibirsk, Russia, Mongolian Border - Khovd – Ulgii - Yarantai continueing to Urumchi city of Shinjian Uigar province, P.R.C. The route section in Mongolia is 725 km in total starting from Yarantai – Khovd – Ulgii – Ulaanbaishint.

AH-32 route. Khovd – Uliastai – Tsetserleg – Kharkhorin – Lun – Ulaanbaatar - Undurkhaan – Choibalsan - Sumber /Dornod/ route is 2520 km and shall be a main horizontal road.

Mongolia shall be connected to Asian Highway Network with totaling **4286 km road.**

AH-3 route

The following projects were implemented by loan from Asian Development Bank and presently 586 km paved road or 56.3 % of AH-3 route have been constructed:

- In 1997-2000, 312 km existing paved road from Russian Border - Altanbulag-Darkhan-Ulaanbaatar has been rehabilitated under "First Road Development Project" .
- In 2002-2005, 200 km road from Nalaikh-Choir has been newly constructed under "Second Road Development Project".

“Regional Road Development Project”

- 432 km in Choir-Sainshand-Zamiin Uud road that is a missing link of AH-3 routes in Mongolia shall be constructed under Regional Road Development Project financed by Asian Development Bank and Economic Development Cooperation Fund, Korea.

Project purpose

- Intensify activities of trade, tourism and industry sectors as increase of the passenger and freight transports between Mongolia - Russia, and Mongolia-China
- Allow the international transit transport through Mongolian territory and use the economic return for touchy areas of the country.
- Intensify the cross border road transport, it will promote the economic growth not only in local area but also in nation
- Accelerate the socio-economy development of Gobi-sumber and Dornogobi provinces,
- Protect the environment as finalising the use of the multiple tracks which damages pastureland by traffic and preserving the grazing land,

Project components

- Construction of 432 km asphalt concrete roads in Choir-Sainshand-Zamiin Uud
- Implementation of Cross-Border Road Transport Facilitation Plan for smooth passage of vehicles through Mongolian territories from China to Russia
- Road Safety Improvement Project:
 - Installation of Road Safety Features on the Ulaanbaatar-Altanbulag road for road safety,
 - Road Safety Audit in Design Drawing,
 - Public awareness of road safety,
 - Procurement of patrol cars, speed measures, radio stations
 - Training for traffic police officer for improvement of road traffic safety

Project components

- Implementation of Area Development Programs:
 - Construction of 37 km length of 4 local roads connecting to the project main road,
 - Establishment of a pilot roadside station at the junction of local road from the project main roads to Erdene soum,
 - Training for the local laborers on road construction and maintenance,
 - Enhancement of stakeholder participation
- Technical Assistance for awareness and prevention of HIV/AIDS and human trafficking on the north-south road corridor

5.86 km road from State border –Zamiin Uud

- The project “5.861 km paved road from State Border to Zamiin-Uud and inside Zamiin-Uud town” implemented by grant fund of People’s Republic of China was one part of the Project. The construction work was completed in 2005 and opened for traffic. The completed road has 18 m wide carriageway and 4 lanes, and in compliance with international road standard. This road is the start point of Asian Highway Network in Mongolia.

Project implementation period

- The preparation work for project started from 2004 and the road construction work is planned to commence in 2006 and complete at the end of 2008.

Project importance

- Complete connection to AH-3 route with paved road.

As completion of the project road, a missing link of AH-3 route section in Mongolia is completely filled with paved roads. and open for the traffic between Russia and China.

- Possitives for the development of local areas along the road

As completion of the project road, the local households shall be reachable to the market and province centers with lower transport cost. It benefits for local households buying consumer product with cheaper prices and greater choices.

- Employment vacancy

During the project implementation, the employment of local citizens from two provinces of project area shall be maximise and pay attention on increase of their earnings. Skilled and unskilled workers shall be employed during the construction work and organise several trainings for locals to make them skilled. After completion of road construction, local citizens shall have permanent income as having mini service center like food shop, motel etc for passengers and can use possibility of minor trade and manufacture along the road. The locals can be employed at the Roadside Stations, petrol stations, hotels, restaurants, car workshops, art shops and mini supermarket to be constructed along the roads.

Project importance

- Environment protection

Project implementation area is semi-arid and has sparse plant layers. For protection of road against sand movement and snow cover, trees shall be planted for 15% of road alignment. The project road shall finalise the use of multiple tracks and restore the graze land.

- Cross border road transport facilitation

Normally, the cross border road transport is time consuming because of crowd traffic at the border. The project includes the Cross Border Road Transport Facilitation Plan. The training shall be organised for border staff for making quicker and quality service for passenger and freight transport and additional freight check equipment shall be installed.

Project importance

- Prevention and Public Awareness of HIV/AIDS and Human Trafficking

After completion of project road construction, it is certain the number of transport traffic increases. Some negatives could be arisen along the crowd transit transports. Therefore, activities of prevention and public awareness of HIV/AIDS and Human Trafficking were included in our project components.

- Increase in the road transport confort

The road evenness gives a remarkable decrease in traffic accidents. Average speed of vehicles on this road prior to construction is 27.4-34.6 km/hour, it will be 63.7-78.2 km/hour after construction completed, approxemately 2.2 times increase. Now average travel time is between 12.34 – 15.52 hour from UB – Zamiin Uud, it shall be 5.29 – 6.39 hours drive, approxemately 2.28 times faster.

AH-4 route

- The AH-4 route starts from Novosibirsk, Russia, Mongolian Border - Khovd – Ulgii - Yarantai continueing to Urumchi city of Shinjian Uigar province, P.R.C. The route section in Mongolia is 725 km in total starting from Yarantai – Khovd – Ulgii – Ulaanbaishint. 65 km paved road between Yarantai-Bulgan-Uench was newly constructed in 2005 with own fund.
- The feasibility study for this west vertical altitude road is planning to be done under Technical Assistance Project financed by ADB.

AH-32 route

- Khovd – Uliastai – Tsetserleg – Kharkhorin – Lun – Ulaanbaatar - Undurkhaan –Choibalsan - Sumber /Dornod/ route is 2520 km and shall be a main horizontal road.
- The Government of Mongolia is implementing ‘Millenium Road’ project, and most part of the project roads are same routes of Asian Highway Network. The road construction is remarkably increased.
- For AH-32 route, 403 km out of 2520 km road was paved, it is only 16 percent of total link. This percentage includes both existing paved roads and newly constructed roads in recent years.
- Lately, 115 km asphalt concrete road from Kherlen Bridge to Duutiin Davaa Mountain Pass that goes to east side from Ulaanbaatar was constructed by own fund of Mongolia.

Importance and benefits of Asian Highway Network

- When we completely connect with three routes to the Asian Highway Network, we will have the shortest road transport network to develop the trade and cooperation with neighbouring countries and Asian and European countries.
- It will be possible to pass the transit transport between Russia and China after conclusion of Transit Transport Agreement.
- Transit transport vehicle from our neighbouring countries to our country and from Russia to China shall be easier and reduce the driving time. The number of road transport shall be increased and positively affect to the economic growth of Mongolia.
- Mongolia shall have possibility to reach the sea port with paved road.

Importance and benefits of Asian Highway Network

- In connection of international transit transport passing through Mongolia, the complex roadside station shall be established in every 100 km. As result of establishment of roadside station, local citizens shall have employment and the living standard shall be improved.
- Remote west and east provinces of Mongolia shall be connected to each other and capital city, and reachable to the market and social services.
- The toll fee to be collected from transit transport shall be increased. It shall give amount of increase in the road maintenance fund.
- When local infrastructure improves, more tourist will target to Mongolia and tourism sector shall have great opportunity to come up to new phase of development.
- The movement from countryside to the capital city forms huge population density. The movement shall be reduced.



Thank you for your attention!