

I. Introduction to the Asian Highway



In centuries past, great explorers embarked by land and sea in search of new worlds and riches. Like today, the purpose of travel was to explore new horizons, learn from different cultures, trade, or simply to secure food, shelter and means of subsistence for families and communities. They returned with tales of exotic lands, strange animals and fascinating customs of peoples living in these lands. Today's modern explorers do not need to sit riveted to their chairs listening to the tales and marvelling at the richness of the cultures. The Asian Highway allows them to experience at first hand the accounts that were relayed by great explorers.

In 1959, the Asian Highway project was conceived partially to resurrect those dreams, of trade and travel and to bring the world closer together. In doing so the Asian Highway promotes social progress and better standards of life in larger freedom as laid down in the preamble to the Charter of the United Nations.

In the 1960s and 1970s, considerable progress was achieved in identifying a regional road network with active cooperation of member countries. In the late 1980s, the Asia-Pacific region as a whole emerged as a dynamic arena of economic growth. Demand increased for reliable and efficient road transport, which proved to be a versatile and cost-effective mode for moving large numbers of people and goods across borders.

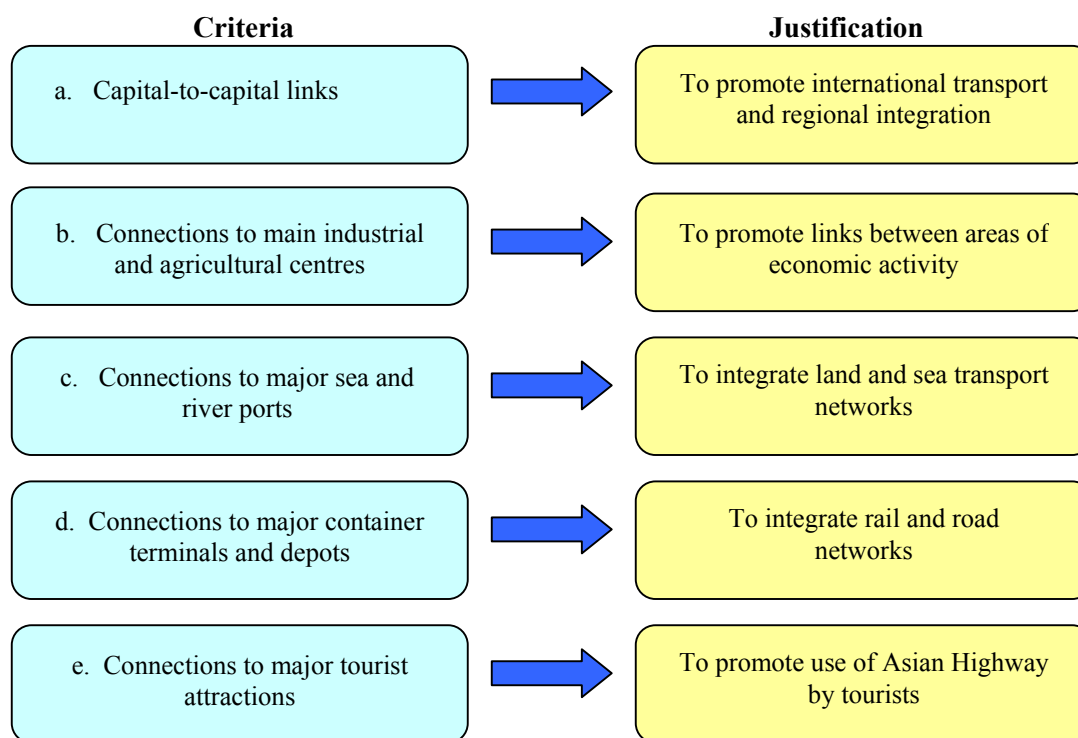
In 1992, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) endorsed the Asian Land Transport Infrastructure Development (ALTID) project comprising of the Asian Highway and the Trans-Asian Railway network as well as facilitation of land transport. The Asian Highway project is one of the cornerstones of ALTID. The formalization of the Asian Highway, through the Intergovernmental Agreement on Asian Highway Network adopted in November 2003, has brought the project to a new turning point in its history.

1. Concept of the Asian Highway Network

Developing an international highway network is a hugely expensive and time-consuming exercise. It involves building roads of common standards through vastly different kinds of terrain, ranging from mountains to deserts, crossing rivers and traversing forests. Because many ESCAP member countries cannot afford the high costs of building such a comprehensive network, it was agreed that the basic thrust of the Asian Highway project would be *to coordinate the development and upgrading of existing regional highways among member countries.*

In this regard, participating countries agreed that the basic underlying principles for the Asian Highway network would be to include only major national roads in the network and to make the maximum use of existing roads, avoiding the construction of new highways except in

cases where deemed necessary to complete “missing links”. Furthermore, the criteria used to select the road, rail and road-cum-rail routes should provide for:



2. Identifying the Network

The process of identifying the roads to be included in the Asian Highway network began in the late 1950s, but it was mainly after 1992, when the ALTID project was endorsed by ESCAP, that the network formulation process was taken up in earnest. The ESCAP secretariat was tasked with the complex task of coordinating the development of the Asian Highway network by facilitating discussion among member countries. With the financial assistance from the Government of Japan, it conducted a series of studies, the first of which was published in 1995. This study identified 29 Asian Highway routes, totaling 69,000 kilometres.

In 1996, a second study was completed on the Asian Highway network in Central Asia and the South Caucasus, leading to the inclusion of a further 13 routes totalling 21,000 kilometers. In 1999, the Asian Highway routes in Turkey were agreed upon, adding a further 3,200 kilometres to the network.

The ALTID implementation strategy stressed the importance of the formulation of the Asian Highway network to cover all of Asia. Building on this momentum, a third study was completed in 2001 and identified the Asian Highway routes in China, Kazakhstan, Mongolia, the Russian Federation and the Korean peninsula. These routes formed the Northern Corridor of the Asian Highway, effectively linking North-East Asia with Central Asia, the Caucasus and Europe. About 40,000 kilometers of road network were included in the network.

In 2001 and 2002, Asian Highway routes were identified in Georgia and Bhutan respectively. An Expert Group Meeting held in May 2002 amongst 30 member countries reviewed the entire network and extended it to towns and cities in 31 countries, covering a total of 140,000 kilometres. In November 2003, Japan joined the Asian Highway project by including the Tokyo-Fukuoka section in the network. Brunei Darussalam has also expressed a keen interest to join the network.

3. Current status of the Asian Highway

The Asian Highway Map (figure 1) shows the current network across all 32 member countries, as well as linkages to the European Road Network (E-road).

Further information on the current status of the Asian Highway network, by country and by route number, is summarized in tables 1 and 2.

Figure 1: The Asian Highway Network



Table 1: Status of Asian Highway by country (as of 2002)

Country	Length	Paved		Unpaved	Ferry	Missing link	Unknown	Common Section
		2 Lanes or more	1 Lane					
Afghanistan	4,247	2,330	10	1,906	1	0	0	472
Armenia	958	958	0	0	0	0	0	10
Azerbaijan	1,442	1,442	0	0	0	0	0	184
Bangladesh	1,804	1,188	584	2	9	21	0	487
Bhutan	1	1	0	0	0	0	0	0
Cambodia	1,339	1,337	0	0	2	0	0	0
China	25,579	25,047	0	532	0	0	0	1,692
DPRK	1,320	0	0	0	0	0	1,320	0
Georgia	1,154	1,154	0	0	0	0	0	206
India	11,432	11,389	43	0	0	0	0	1,174
Indonesia	3,989	3,955	0	0	34	0	0	0
Islamic Republic of Iran	11,152	11,152	0	0	0	0	0	566
Japan	1,200	1,200	0	0	0	0	0	0
Kazakhstan	13,189	12,080	214	895	0	0	0	2,075
Kyrgyzstan	1,695	1,317	0	378	0	0	0	34
Lao PDR	2,297	1,873	0	249	3	45	127	106
Malaysia	1,595	1,595	0	0	0	0	0	0
Mongolia	4,286	800	0	3,486	0	0	0	37
Myanmar	3,003	1,472	1,013	518	0	0	0	771
Nepal	1,321	1,304	0	17	0	0	0	107
Pakistan	5,377	5,377	0	0	0	0	0	1,275
Philippines	3,517	2,979	0	388	150	0	0	0
Republic of Korea	907	907	0	0	0	0	0	68
Russian Federation	16,869	14,945	0	1,924	0	0	0	422
Singapore	19	19	0	0	0	0	0	0
Sri Lanka	650	537	113	0	0	0	0	0
Tajikistan	1,925	1,671	0	220	1	33	0	0
Thailand	5,112	4,553	0	0	2	0	557	363
Turkey	5,254	5,254	0	0	0	0	0	538
Turkmenistan	2,204	2,180	0	24	0	0	0	358
Uzbekistan	2,966	2,722	0	244	0	0	0	379
Viet Nam	2,678	2,343	335	0	0	0	0	0
Total	140,479	125,081	2,312	10,783	200	99	2,004	11,324

Note: The length of route in Japan is estimated by ESCAP.

Table 2: Status of Asian Highway by route number (as of 2002)

Route No.	Length	Paved		Unpaved	Ferry	Missing link	Unknown	Common Section
		2 Lanes or more	1 Lane					
AH1	20,557	19,138	768	216	9	21	405	0
AH2	13,177	9,623	767	216	8	0	0	2,563
AH3	7,331	4,655	5	978	1	0	0	1,692
AH4	6,024	4,097	0	714	0	0	0	1,213
AH5	10,380	9,842	0	0	0	0	0	538
AH6	10,475	9,285	0	267	0	0	855	68
AH7	5,868	5,160	0	145	1	0	0	562
AH8	4,718	4,244	0	126	0	0	0	348
AH11	1,588	1,541	0	46	1	0	0	0
AH12	1,195	1,170	0	25	0	0	0	0
AH13	730	0	0	0	1	45	684	0
AH14	2,077	1,891	186	0	0	0	0	0
AH15	566	394	65	0	1	0	0	106
AH16	1,032	947	84	0	1	0	0	0
AH18	1,042	1,042	0	0	0	0	0	0
AH19	459	459	0	0	0	0	0	0
AH25	2,549	2,523	0	0	26	0	0	0
AH26	3,517	2,979	0	388	150	0	0	0
AH30	2,739	1,231	0	1,508	0	0	0	0
AH31	1,595	1,595	0	0	0	0	0	0
AH32	3,748	1,534	0	2,117	0	0	60	37
AH33	575	575	0	0	0	0	0	0
AH34	1,033	1,033	0	0	0	0	0	0
AH41	948	675	110	0	2	0	0	161
AH42	3,754	3,155	0	492	0	0	0	107
AH43	3,024	2,911	113	0	0	0	0	0
AH44	107	107	0	0	0	0	0	0
AH45	2,030	1,937	0	0	0	0	0	93
AH46	1,513	1,513	0	0	0	0	0	0
AH47	2,057	2,057	0	0	0	0	0	0
AH48	1	1	0	0	0	0	0	0
AH51	862	837	0	0	0	0	0	25
AH60	2,151	2,136	0	0	0	0	0	15
AH61	4,158	3,744	189	191	0	0	0	34
AH62	2,722	1,489	0	375	0	0	0	858
AH63	2,434	1,996	0	438	0	0	0	0
AH64	1,666	1,311	0	23	0	0	0	332

AH65	1,250	1,023	0	227	0	0	0	0
AH66	995	854	0	108	0	33	0	0
AH67	2,288	1,534	0	0	0	0	0	754
AH68	278	278	0	0	0	0	0	0
AH70	4,832	3,042	25	277	0	0	0	1,488
AH71	426	162	0	264	0	0	0	0
AH72	1,147	1,147	0	0	0	0	0	0
AH75	1,871	1,871	0	0	0	0	0	0
AH76	986	327	0	659	0	0	0	0
AH77	1,298	315	0	983	0	0	0	0
AH78	1,076	1,076	0	0	0	0	0	0
AH81	1,143	1,003	0	0	0	0	0	140
AH82	1,261	1,071	0	0	0	0	0	190
AH83	172	172	0	0	0	0	0	0
AH84	1,188	1,188	0	0	0	0	0	0
AH85	338	338	0	0	0	0	0	0
AH86	247	247	0	0	0	0	0	0
AH87	606	606	0	0	0	0	0	0
Total	151,803	125,081	2,312	10,783	200	99	2,004	11,324

4. Formalization of the Asian Highway Network

As the final step in the formalization of the Asian Highway Network, an Intergovernmental Agreement was adopted in November 2003. The main obligations of the Contracting Parties within the Agreement are to adopt the Asian Highway network as a coordinated plan for the development of highway routes of international importance; bring the network in conformity with the Asian Highway classification and design standards; and facilitate navigation along the routes through the placement of adequate signage along the Asian Highway routes.

The Agreement was prepared by a Working Group on Asian Highway set up by the fifty-eighth session of ESCAP on the recommendation of the Ministerial Conference on Infrastructure held in Seoul in 2001. It is based on the European Agreement of Main International Traffic Arteries.

A formal signing ceremony of the Agreement is scheduled to be held during the sixtieth session of the Commission in Shanghai, China, in April 2004.

(i) The Asian Highway routes

The formal definition of the Asian Highway routes is included as an annex to the Intergovernmental Agreement. These routes are reproduced in table 3. Provisions exist within the Agreement to convene a Working Group, one of the functions of which is to periodically review the routes.

(ii) Asian Highway Classification and Design Standards

Asian Highway routes are required to conform to minimum standards of classification and design in terms of construction, improvement and maintenance. This is intended to uphold quality standards and enhance recognition among users. Member countries have agreed to make every possible effort to conform to these provisions both in the construction of new routes and in modernizing existing ones. The provisions of these classification and design standards are summarized in table 4.

(iii) Numbering and signage

Like airline flights, Asian Highway routes have been assigned numbers to help make them easy to identify on maps as well as via signage along the routes themselves. The principles for assigning route numbers is as follows:

1. Route numbers begin with "AH", which stands for "Asian Highway", followed by one, two or three digits.
2. Single-digit route numbers from 1 to 9 are assigned to Asian Highway routes which substantially cross more than one subregion.
3. Sets of two- and three-digit route numbers are assigned to indicate the routes within subregions, including those connecting to a neighbouring subregion, and highway routes within member States as indicated below:

- (a) Route numbers 10-29 and 100-299 are allocated to South-East Asia which includes Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam;
- (b) Route numbers 30-39 and 300-399 are allocated to East and North-East Asia which includes China, the Democratic People's Republic of Korea, Japan, Mongolia, the Republic of Korea and the Russian Federation (Far East);¹
- (c) Route numbers 40-59 and 400-599 are allocated to South Asia which includes Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka;
- (d) Route numbers 60-89 and 600-899 are allocated to North, Central and South-West Asia which includes Afghanistan, Armenia, Azerbaijan, Georgia, the Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, the Russian Federation,¹ Tajikistan , Turkey, Turkmenistan and Uzbekistan.

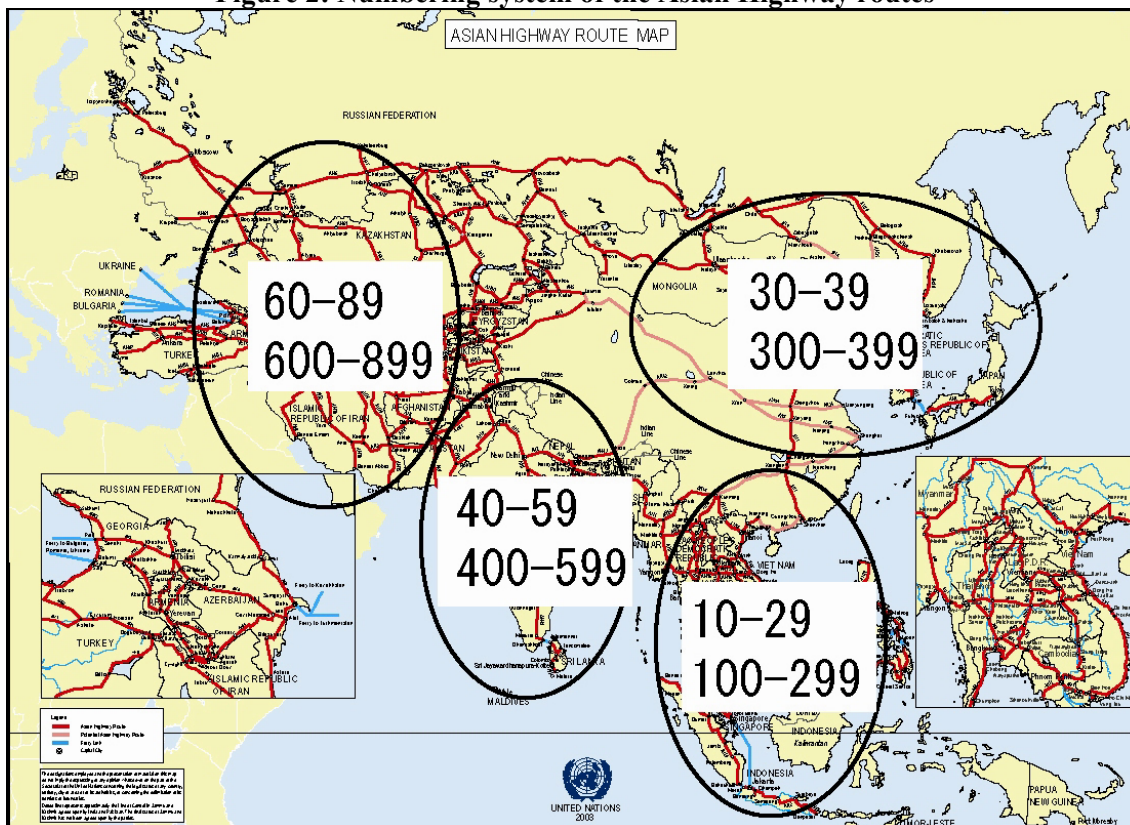
This numbering system is illustrated in figure 2.

The Asian Highway signage is rectangular in shape and consists of the letters AH followed by the route number in Arabic numerals with a white or black inscription affixed to or combined with other signs which can be easily identified and understood by drivers.



¹ The Russian Federation is included in two subregions for the purpose of assigning route numbers because of its geographic extent.

Figure 2: Numbering system of the Asian Highway routes



5. Promotion of the Asian Highway

ESCAP member countries have been working to develop and upgrade AH routes within their national plans and policies. Much still remains to be done in terms of constructing missing links such as bridges, upgrading of substandard sections and allocating adequate funding for maintenance of the AH routes.

It is now critical to promote a greater awareness amongst policy-makers and the general public of the contribution of the Asian Highway to regional economic and social progress. The ESCAP secretariat has been providing information to highway administrations, road developers, financing institutions, road users, tourists, the private sector and the general public to increase visibility and raise public awareness of the importance of the Asian Highway. Some past activities have included:

(a) Events

Several expert group meetings, seminars, a symposium and workshops for participating member countries, subregional and international organizations have been held to exchange ideas, share experiences and consider policy options and best practices. These activities generated a number of important suggestions for the development of the Asian Highway. For example, the ESCAP-Japan Symposium on the Asian Highway Development, held in Tokyo in 1996 ended with a strong recommendation to strengthen regional cooperation through development, formalization and promotion of the Asian Highway.

(b) Asian Highway Route Map

A series of maps entitled “A Practical Guide to Motorists - Asian Highway Route Map” were published between 1976 and 1988, sponsored by a tyre manufacturer. These publications were reprinted several times and enjoyed wide recognition amongst travelers.

(c) *Asian Highway Database*

An Asian Highway database, initiated in 1995, now encompasses details of the network within 31 countries. Some basic information has been posted on the Asian Highway web page. The database is currently being updated, with additional features being added using Geographic Information Systems (GIS) software.

(d) *Asian Highway web page*

The Asian Highway web page (<http://www.unescap.org/tctd/ah/index.htm>) contains some key information on the Asian Highway and the database. Internet users have increasingly visited it to access the database and download Asian Highway-related publications. Among the most frequently visited pages are those containing files related to the Highway, country data, tourism prospects and the Asian Highway study on the Northern Corridor.

(e) *Asian Highway Brochures*

An Asian Highway brochure was published in English and Japanese. Another brochure has been published on the database as a useful handout for distribution to interested users in the Asian Highway member countries.

(f) *Asian Highway Auto-Venture*

From 1978 to 1998 the “Asian Highway Auto-Venture”, an auto-rally was jointly organized by the Automobile Association of Singapore and the Tourism Authority of Thailand, under ESCAP sponsorship. This event took place annually along the Asian Highway Route Nos. 1 and 2 through Singapore, Malaysia and Thailand. Participants included families and ranged from children to grandparents, all of whom enjoyed the event and opportunity to explore major tourism attractions along the routes.

6. A Vision of the Future

The unanimous of adoption of the Intergovernmental Agreement on the Asian Highway Network by 32 member countries was a landmark event and the Asian Highway project has entered into a new phase. It will enhance the regional network by boosting the priority given by member countries to its development in accordance with the uniform design standards. More Asian Highway route signage will be installed to guide international travellers.

The flow of international traffic is steadily increasing through the Asian Highway network, and will grow further with improved infrastructure, as in Europe. Ways to ensure the sustained growth in cross-border flow of peoples and goods will continue to be discussed in the Working Group on the Asian Highway. At present, the Asian Highway network includes primarily trunk routes of international and domestic importance, but in the future, it is envisaged that secondary roads linking to the Asian Highway will become part of the network, providing important additional links to domestic and international networks.

It is envisaged that a day will soon come when products from Singapore, Shanghai or Bandar Abbas will be delivered to buyers in Central Asia or tourists and adventurers may drive to Europe from Tokyo or Bali. The benefits of this for the peoples of the ESCAP region are immense and unparalleled.

Table 3. List of Asian Highway Routes (as of November 2003)

AH route number	Itinerary
AH1	Tokyo – Fukuoka – ferry – Pusan – Kyongju – Taegu – Taejon – Seoul – Munsan – Gaesung – Pyongyang – Sinuiju – Dandong – <u>Shenyang</u> – <u>Beijing</u> – Shijiazhuang – Zhengzhou – Xinyang – Wuhan – Changsha – Xiangtan – <u>Guangzhou</u> (– Shenzhen) – <u>Nanning</u> – Youyiguan – Huu Nghi – Dong Dang – Ha Noi – Vinh – Dong Ha – Hue – Da Nang – Hoi An – Nha Trang – Bien Hoa (– Vung Tau) – Ho Chi Minh City – Moc Bai – Bavet – Phnom Penh – Poipet – Aranyaprathet – Kabin Buri – Hin Kong – Bang Pa-in (– Bangkok) – Nakhon Sawan – Tak – Mae Sot – Myawadi – Payagyi (– Yangon) – Meiktila – Mandalay – Tamu – Moreh – Imphal – Kohima – Dimapur – Nagaon – Jorabat (– Guwahati) – Shillong – Dawki – Tamabil – Sylhet – Katchpur – Dhaka – Jessore – Benapol – Bongaon – Kolkata – Barhi – Kanpur – Agra – New Delhi – Attari – Wahgah – Lahore – Rawalpindi (– Islamabad) – Hassanabdal – Peshawar – Torkham – Kabul – Kandahar – Dilaram – Herat – Islam Qala – Dogharun – Mashhad – Sabzevar – Damghan – Semnan – Tehran – Qazvin – Tabriz – Eyvoghli – Bazargan – Gurbulak – Dogubayazit – Askale – Refahiye – Sivas – Ankara – Gerede – Istanbul – Kapikule – Border of Bulgaria
AH2	Denpasar – Surabaya – Surakarta – Semarang – Cikampek (– Bandung) – Jakarta (– Merak) – ferry – Singapore – Senai Utara – Seremban – Kuala Lumpur – Butterworth – Bukit Kayu Hitam – Sa Dao – Hat Yai – Bangkok – Bang Pa-in – Nakhon Sawan – Tak – Chiang Rai – Mae Sai – Tachilek – Kyaing Tong – Meiktila – Mandalay – Tamu – Moreh – Imphal – Kohima – Dimapur – Nagaon – Jorabat (– Guwahati) – Shillong – Dawki – Tamabil – Sylhet – Katchpur – Dhaka – Hatikamrul – Banglabandha – Siliguri – Kakarbhitta – Pathlaiya – Narayanghat – Kohalpur – Mahendranagar – Bramhadev Mandi – Banbasa – Rampur – New Delhi – Attari – Wahgah – Lahore – Multan – Rohri – Quetta – Taftan – Mirjaveh – Zahedan – Kerman – Anar – Yazd – Salafchegan (– Tehran) – Saveh – Hamadan – Khosravi
AH3	Ulan-Ude – Kyahta – Altanbulag – Darkhan – Ulaanbaatar – Nalayh – Choir – Saynshand – Zamin-Uud – Erenhot – Beijing – Tanggu <u>Shanghai</u> – Hangzhou – Nanchang – Xiangtan – <u>Guiyang</u> – <u>Kunming</u> – Jinghong (– Daluo – Mongla – Kyaing Tong) – Mohan – Boten – Nateuy – Houayxay – Chiang Khong – Chiang Rai
AH4	Novosibirsk – Barnaul – Tashanta – Ulaanbaishint – Hovd – Yarantai Urumqi – Kashi – Honqiraf – Khunjerab – Hassanabdal – Rawalpindi (– Islamabad) – Lahore – Multan – Rohri – Hyderabad – Karachi
AH5	<u>Shanghai</u> – Nanjing – Xinyang – Xi’an – Lanzhou – Tulfan – Urumqi – Kuitun – Jinghe – Horgos – Almaty – Kaskelen – Kordai – Georgievka – Bishkek – Kara Balta – Chaldovar – Merke – Shymkent – Zhibek Zholy – Chernyavka – Tashkent – Syrdaria – Samarkand – Navoi – Bukhara – Alat – Farap – Turkmenabat – Mary – Tejen – Ashgabat – Serdar – Turkemenbashi – ferry – Baku – Alat – Gazi Mammed – Ganja – Kazakh – Red Bridge – Tbilisi – Mtskheta – Khashuri – Senaki – Poti (– ferry to Bulgaria, Romania, Ukraine) – Batumi (– ferry to Bulgaria, Romania, Ukraine) – Sarpi – Sarp – Trabzon – Samsun – Merzifon – Gerede – Istanbul – Kapikule – Border of Bulgaria
AH6	Pusan – Kyongju – Kangnung – Kansong – Kosong – Wonsan (– Pyongyang) – Chongjin – Sonbong – Khasan – Hasan – Razdolnoe (– Vladivostok – Nahodka) – Ussuriysk – Pogranichny – Suifenhe – <u>Harbin</u> – <u>Qiqihar</u> – <u>Manzhouli</u> – Zabaykalsk – Chita – Ulan-Ude – Irkutsk – Krasnoyarsk – Novosibirsk – Omsk – Isilkul – Karakuga – Petropavlovsk – Chistoe – Petuhovo – Chelyabinsk – Ufa – Samara – Moscow – Krasnoe – Border of Belarus
AH7	Yekaterinburg – Chelyabinsk – Troisk – Kaerak – Kostanai – Astana – Karaganda – Burubaital – Merke – Chaldovar – Kara Balta – Osh – Andijon – Tashkent – Syrdaria – Khavast – Khujand – Dushanbe – Nizhniy Panj – Shirkhan – Polekhumri – Djibulsarcj – Kabul – Kandahar – Speenboldak – Chaman – Quetta – Kalat – Karachi

AH8	Border of Finland – Torpynovka – Vyborg – St. Petersburg – Moscow – Tambov – Borysoglebsk – Volgograd – Astrakhan – Hasavjurt – Mahachkala – Kazmalyarskiy – Samur – Sumgayit – Baku – Alat – Bilasuvar – Astara – Rasht – Qazvin – Tehran – Saveh – Ahvaz – Bandar Emam
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South-East Asia	
AH11	Vientiane – Ban Lao – Thakhek – Seno – Pakse – Veunkham – Tranpeangkreal – Stung Treng – Kratie – Phnom Penh – Sihanoukville
AH12	Nateuy – Oudomxai – Pakmong – Louang Phrabang – Vientiane – Thanaleng – Nong Khai – Udon Thani – Khon Kaen – Nakhon Ratchasima – Hin Kong
AH13	Oudomxai – Muang Ngeun – Huai Kon – Uttaradit – Phitsanulok – Nakhon Sawan
AH14	Hai Phong – Ha Noi – Viet Tri – Lao Cai – Hekou – Kunming – Ruili – Muse – Lashio – Mandalay
AH15	Vinh – Cau Treo – Keoneau – Ban Lao – Thakhek – Nakhon Phanom – Udon Thani
AH16	Dong Ha – Lao Bao – Densavanh – Seno – Savannakhet – Mukdahan – Khon Kaen – Phitsanulok – Tak
AH18	Hat Yai – Sungai Kolok – Rantau Panjang – Kota Bahru – Kuantan – Johor Bahru – Johor Bahru Causeway
AH19	Nakhon Ratchasima – Kabin Buri – Laem Chabang – Chonburi – Bangkok
AH25	Banda Aceh – Medan – Tebingtinggi – Dumai – Pekanbaru – Jambi – Palembang – Tanjung Karang – Bakauheni – ferry – Merak
AH26	Laoag – Manila – Legazpi – Matnog – ferry – Allen – Tacloban (– Ormoc – ferry – Cebu) – Liloan – ferry – Surigao – Davao (– Cagayan de Oro) – General Santos – Zamboanga

East and North-East Asia	
AH30	Ussuriysk – Khabarovsk – Belogorsk – Chita
AH31	Belogorsk – Blagoveshchensk – Heihe – Harbin – Changchun – Shenyang – Dalian
AH32	Sonbong – Wonjong – Quanhe – Hunchun – Changchun – Arshan – Numrug – Sumber – Choybalsan – Ondorhaan – Nalayh – Ulaanbaatar – Uliastay – Hovd
AH33	<u>Harbin – Tongjiang</u>
AH34	<u>Lianyungang – Zhengzhou – Xi’an</u>

South Asia	
AH41	Border of Myanmar – Teknaf – Cox’s Bazar – Chittagong – Katchpur – Dhaka – Hatikamrul – Jessore – Mongla
AH42	<u>Lanzhou – Xining – Golmud – Lhasa – Zhangmu – Kodari – Kathmandu – Narayanghat – Pathlaiya – Birgunj – Raxaul – Piprakothi – Muzaffarpur – Barauni – Barhi</u>
AH43	Agra – Gwalior – Nagpur – Hyderabad – Bangalore – Krishnagiri – Madurai – Dhanushkodi – ferry – Tallaimannar – Anuradhapura – Dambulla – Kurunegala (– Kandy) – Colombo – Galle – Matara
AH44	Dambulla – Trincommalee
AH45	Kolkata – Kharagpur – Balasore – Bhubaneswar – Visakhapatnam – Vijayawada – Chennai – Krishnagiri – Bangalore
AH46	Kharagpur – Nagpur – Dhule
AH47	Gwalior – Dhule – Thane (– Mumbai) – Bangalore
AH48	Phuentsholing – Border of India
AH51	Peshawar – Dera Ismail Khan – Quetta

North, Central and South-West Asia	
AH60	Omsk – Cherlak – Pnirtyshskoe – Pavlodar – Semipalatinsk – Georgievka – Taskesken – Ucharal – Almaty – Kaskelen – Burubaital

AH61	Kashi – Turugart – Torougart – Naryn – Bishkek – Georgievka – Kordai – Merke – Shymkent – Kyzylorda – Aralsk – Karabutak – Aktyubinsk – Ural’sk – Kamenka – Ozinki – Saratov – Borysoglebsk – Voronezh – Kursk – Krupets – Border of Ukraine
AH62	Petropavlovsk – Arkalyk – Zhezkazgan – Kyzylorda – Shymkent – Zhibek Zholy – Chernyavka – Tashkent – Syrdaria – Samarkand – Guzar – Termez – Hairatan – Mazar-i-Sharif
AH63	Samara – Kurlin – Pogodaevo – Ural’sk – Atyrau – Beyneu – Oazis – Nukus – Bukhara – Guzar
AH64	Barnaul – Veseloyarskyj – Krasny Aul – Semipalatinsk – Pavlodar – Shiderty – Astana – Kokshetau – Petropavlovsk
AH65	Kashi – Arkaxtam – Irkeshtam – Sary-Tash (– Osh) – Karamyk – Vakhdat – Dushanbe – Tursunzade – Uzun – Termez
AH66	Border of China – Kulma Pass – Khorugh – Kulob – Vakhdat – Dushanbe
AH67	Kuitun – Baketu – Bakhty – Taskesken – Semipalatinsk – Pavlodar – Shiderty – Karaganda – Zhezkazgan
AH68	Jinghe – Alatawshankou – Dostyk – Ucharal
AH70	Border of Ukraine – Donetsk – Volgograd – Astrakhan – Kotyaevka – Atyrau – Beyneu – Zhetybai (– Aktau) – Bekdash – Turkemenbashi – Serdar – Guduroolum – Inche Boroun – Gorgan – Sari – Semnan – Damghan – Yazd – Anar – Bandar Abbas
AH71	Dilaram – Zarang – Milak – Zabol – Dashtak
AH72	Tehran – Qom – Esfahan – Shiraz – Bushehr
AH75	Tejen – Sarahs – Sarakhs – Mashhad – Birjand – Nehbandan – Dashtak – Zahedan – Chabahar
AH76	Polekhumri – Mazar-i-Sharif – Herat
AH77	Djbul sarej – Bamiyan – Herat – Tourghondi – Serkhetabat – Mary
AH78	Ashgabat – Chovdan Pass – Bajgiran – Qucham – Sabzevar – Kerman
AH81	Larsi – Mtskheta – Tbilisi – Sadakhlo – Bagratashen – Vanadjor – Ashtarak – Yerevan – Eraskh – Sadarak – Nakhchivan – Julfa (– Jolfa) – Ordubad – Agarak – Meghri – Aghband – Goradiz – Gazi Mammed – Alat – Baku – ferry – Aktau
AH82	Border of the Russian Federation – Leselidze – Sukhumi – Senaki – Khashuri – Akhaltsikhe (– Vale) – Zdanov – Bavra – Gumri (– Akurik) – Ashtarak – Yerevan – Eraskh – Goris – Kapan – Meghri – Agarak – Nour Douz – Jolfa – Iveoqlu
AH83	Kazakh – Uzungala – Paravakar – Yerevan
AH84	Dogubayazit – Diyarbakir – Gaziantep – Toprakkale (– Iskenderun) – Adana – Icel
AH85	Refahiye – Amasya – Merzifon
AH86	Askale – Bayburt – Trabzon
AH87	Ankara – Afyon – Usak – Izmir

Notes: Routes in parentheses identify branches from the place indicated immediately before the parentheses.

Underlined sections indicate potential Asian Highway routes.

The word “ferry” shall not be construed so as to impose any obligation on the Parties.

Table 4. Asian Highway design standards

Highway classification	Primary (4 or more lanes)					Class I (4 or more lanes)					Class II (2 lanes)					Class III (2 lanes)				
	L	R	M	S		L	R	M	S		L	R	M	S		L	R	M	S	
Terrain classification	120	100	80	60		100	80	50			80	60	50	40		60	50	40	30	
Design speed (km/h)	(50)					(40)					(40)					(30)				
Width (m)	3.50					3.50					3.50					3.00 (3.25)				
Lane	3.00					3.00					2.50					1.5 (2.0) 0.75 (1.5)				
Shoulder	4.00					3.00					N/A					N/A				
Median strip	3.00					2.50					2.50					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 (minimum)	HS20-44					HS20-44					HS20-44					HS20-44				

Notes: Figures in parentheses are desirable values.

Minimum radii of horizontal curve should be determined in conjunction with superelevation.

The recommended width of the median can be reduced with the proper type of guard fence.

The Parties should apply their national standards when constructing structures such as bridges, culverts and tunnels along the Asian Highway.