

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

**EVALUATION OF PROJECTS ON**

**PROMOTION, DEVELOPMENT AND FORMALIZATION OF  
THE TRANS-ASIAN RAILWAY**

**SUMMARY**

This document contains an internal qualitative assessment of the ESCAP series of projects on the Trans-Asian Railway, a flagship initiative aimed at helping members and associate members meet the challenges of globalization and reach a higher degree of regional economic integration. It assesses the outcomes of the projects and the impact of this work on the Asia-Pacific region, and considers how lessons learned could help to guide future project planning and implementation.

## I. PURPOSE OF EVALUATION

1. This report is an internal qualitative assessment ESCAP series of projects on the Trans-Asian Railway. As part of ESCAP's revitalization process, the organization is enhancing its monitoring and evaluation of programme activities.
2. This desk review considers the secretariat's experiences in carrying out its long-running flagship programme relating to the Trans-Asian Railway. It assesses the outcomes of ESCAP work on this subject, in particular, the outcomes of more recent activities since the 1990s, and considers lessons learned for future project planning and implementation.

## II. INTRODUCTION

### Summary

3. The Trans-Asian Railway programme aims to develop an effective network of railway lines across Asia and connecting Asia with Europe and Western Asia. Since 1992, it has been part of the Asian land transport infrastructure development (ALTID) programme, which also includes the Asian Highway and facilitation of land transport.
4. In addition to developing the physical infrastructure of the Trans-Asian Railway itself, the programme also promotes the operationalization of the network. The main target group for all of these activities comprises policy makers, in particular, transport planning officials in national Governments. Donor and lending institutions, transport operators, international freight forwarders as well as the general public, are also target groups for some activities.
5. Most recent activities under the Trans-Asian Railway programme have been funded by the Government of the Republic of Korea, through the Korea-ESCAP Cooperation Fund. The Ministry of Land, Transport and Maritime Affairs has also provided the services of an expert nearly continuously since the inception of the programme. The Republic of Korea has also funded two recent projects under the programme, while advisory missions to member States have been carried out under funding from the United Nations regular budget for technical cooperation (section 21).
6. The programme is planned and carried out in close cooperation with national government officials as well as the Economic Commission for Europe (ECE), which has developed a similar rail network for Europe (coinciding with the Trans-Asian Railway in Central Asia and the Caucasus and with overlaps in the western part of the Russian Federation). Other important partners include the Asian Development Bank (ADB), and subregional organizations like the Association of Southeast Asian Nations (ASEAN), the Economic Cooperation Organization (ECO), and the South Asian Association for Regional Cooperation (SAARC). Collaborative partnerships have also been established with technical organizations such as the Organization for Railways Cooperation (OSJD) and the International Union of Railways (UIC).

### III. BACKGROUND: THE PROBLEM

7. The establishment of an effective transport network within Asia and linking Europe and Asia has to be founded on international cooperation, coordination and planning. While national planners have traditionally afforded highest priority to national networks, the ever-increasing quantity and variety of goods being carried across the continent calls for policies that give greater significance to the international dimension of transport. International organizations like ESCAP are therefore of great value in analyzing trends, benchmarking related initiatives both within and outside the region and providing a forum for Governments to work together on these issues.

8. In particular, landlocked countries have no access to seaports without international highways or railways through neighbouring countries.

10. Building the missing links in the network to provide continuity of trackage along all selected international routes is a specific problem that the Trans-Asian Railway aims to address to enhance the relevance of the network in international trade and promote its operationalization.

11. Another potential problem is the existence of different technical standards and operational procedures applied by railway organizations in different countries, especially neighbouring ones. Different axle-loads, incompatible train assembly or payload practices, incompatible coupling or braking systems are major obstacles making transshipment a necessity even where there is continuity of track gauge. Discontinuity of track gauge, meanwhile, does not constitute a major technical impediment to the operationalization of the network provided concerned railway organizations establish proper transshipment facilities and procedures.

12. Another important issues for policy makers, engineers or transport operators is access to information pertaining to railway infrastructure and services. Many countries have national railway statistics units collecting data on line capacity, traffic units, infrastructure bottlenecks and existing services. However, the information is not commonly shared and there is a lack of synthesized analysis at the subregional and regional levels. This precludes a general understanding of overall operation across the network.

### IV. ACTIVITIES OF THE SECRETARIAT

#### A. *History*

13. In its 1960 annual report, the Economic Commission for Asia and the Far East (ECAFE), as ESCAP was then known, noted the recommendation of the railway subcommittee that “the railways of the region should study the problems of linking the railways network of neighbouring countries in order eventually to provide international connections not only between the countries of the region but

also with the Middle Eastern and European systems”<sup>1</sup>. This original concept of the Trans-Asian Railway was reiterated in 1967 when the Commission took note of the recommendation of the Inland Transport and Communications Committee that “a large railway network be created with the co-operation of all railway administrations in the region with the objective of eventually linking by a Trans-Asian Railway countries of the region with those served by the European and Western-Asian systems.”<sup>2</sup> The objective of the network was to greatly shorten distances and reduce transit times between countries and regions, while being a catalyst for the notion of international transport as a tool for trade expansion, economic growth and cultural exchanges.

14. The international events that punctuated the 1960s, 1970s and early 1980s influenced the momentum of the concept during these three decades and limited resources were allocated to push the Trans-Asian Railway agenda forward. However, in the 1980s and early 1990s, history started to reverse its course. Peace returned to South-East Asia, countries in the Caucasus region and Central Asia regained independence and China adopted more market-oriented economic practices. These changes led to unprecedented growth in trade to and from the ESCAP region. In addition, a salient feature of the region’s trade growth was the increasing significance of trade within the region itself.

15. Recognizing that these changes were putting pressure on the region’s existing transport infrastructure, the 48th session of the Commission (Shanghai, April 1992) launched the Asian Land Transport Infrastructure Development (ALTID) project, including a series of activities to be carried out under phase II (1992-1996) of the Transport and Communications Decade for Asia and the Pacific. From its inception the ALTID project was articulated around three components, namely: the Trans-Asian Railway, Asian Highway and facilitation of land transport, with the objective of improving intraregional and interregional transport links as part of the secretariat’s efforts to assist member countries in addressing the challenges of globalization by providing countries with a tool to access the world’s markets. This commitment had – and to this day still keeps – a particular resonance for land-locked countries.

### ***B. Strategy and activities***

16. The strategy for the implementation of the Trans-Asian Railway programme have included or includes the following: (i) identification of Trans-Asian Railway routes; (ii) formulation of these routes through expert group meetings; (iii) operationalization of the network; (iv) formalization of the network; and (v) integration of the network with other modes (e.g. road and shipping).

17. Through the ALTID programme (which integrates road, rail and shipping), member countries collaborating in activities relating to the Trans-Asian Railway agreed that the rail routes selected to be part of the network should be one of the following:

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<sup>1</sup> *Annual Report of the Economic Commission for Asia and the Far East, 1960.*

<sup>2</sup> *Annual Report of the Economic Commission for Asia and the Far East, 1967.*

- (a) Capital-to-capital links;
- (b) Connections to main industrial and agricultural centres;
- (c) Connections to major sea and river ports (“integration of land and water transport”);
- (d) Connections to major container terminals and depots (“integration of road and rail networks”).

This approach was adopted to (i) minimize the number of railway lines to be included in the network, (ii) emphasize the international nature of the network, and (iii) in view of limited resource, make maximum possible use of existing infrastructure.

18. The overall approach adopted by ESCAP and its member countries in identifying rail routes of international importance and formulating the Trans-Asian Railway network was through a series of corridor studies. Each study led to a publication prepared on the basis of data collected by ESCAP’s Transport Division as well as information provided by member countries through individual country reports. Missions to member countries were then organized to discuss the country reports with transport officials and railway managers in each of the concerned countries in a particular corridor. Once the cycle of discussions had been completed for a particular corridor, ESCAP prepared a draft study report, distributed to concerned countries in advance of an Expert Group Meeting to review the study findings and outcome. Subsequently, the ESCAP would finalize, publish and distribute the final report.

19. The corridor studies were carried out over the period 1996-2001 in the following sequence:

- (a) 1996 – Feasibility study on connecting the rail networks of China, Kazakhstan, Mongolia, the Korean Peninsula and the Russian Federation;
- (b) 1996 – Development of the Trans-Asian Railway in the Indo-China and ASEAN subregion; (countries concerned: Cambodia, China, Indonesia, Lao PDR, Malaysia, Singapore, Thailand, Viet Nam);
- (c) 1999 – Development of the Trans-Asian Railway, Trans-Asian Railway in the Southern Corridor of Asia-Europe Routes; (countries concerned: Bangladesh, China, India, Islamic Republic of Iran, Myanmar, Pakistan, Sri Lanka, Thailand, Turkey);
- (d) 2001 – Development of the Trans-Asian Railway, Trans-Asian Railway in the North-South Corridor Northern Europe to the Persian Gulf; (countries concerned: Armenia, Azerbaijan, Finland, Islamic Republic of Iran, Kazakhstan, Russian Federation, Turkmenistan).

20. The studies followed similar methodology and principles, namely: to (i) identify the links according to the ALTID criteria (para. 17 above), (ii) assess their conformity with a set of technical

requirements (e.g. loading gauges, axle-load, operating speed), and (iii) appraise the compatibility of operational practices on both sides of different national borders to evaluate the possibility of cross-border movements (e.g. couplers, length of trains). In addition, the “software” aspects of transport were reviewed with particular attention to tariff-related issues and the institutional framework pertaining to the passage of goods across borders. Finally, two crucial infrastructure-related elements were also considered, namely: (i) the existence of break-of-gauge points along specific linkages with an assessment of possible solutions to overcome this apparent technical incompatibility, and (ii) the existence of so-called ‘missing links’ making end-to-end movements impossible on some of the linkages.

21. In 2000, with the last corridor study under way and the identification of the Trans-Asian Railway nearing completion, ESCAP and its member countries decided to take concrete action to test the operational capability of the network through the implementation of demonstration runs of container block-trains. The continued growth in the movement of containers within Asia as well as between Asia and its main trading partners provided an ideal background to implement the idea. Railways along the Trans-Asian Railway Northern Corridor agreed to collaborate towards this objective and formalized their commitment in a draft Memorandum of Understanding (MOU) that was presented for signature at the Ministerial Conference on Infrastructure held in the Republic of Korea in November 2001. The railways concerned were: (i) for the ESCAP region, the railways of China, the Democratic People's Republic of Korea (DPRK), Kazakhstan, Mongolia, the Republic of Korea and the Russian Federation; and (ii) outside the ESCAP region, the railways of Belarus and Poland. The International Union of Railways and the Organization for Railways Cooperation also participated in the project. With the exception of DPRK, all countries and international organizations concerned by the project signed the document entitled “Memorandum of Understanding on the Planning and Implementation of Demonstration Runs of Container Block-trains along the Trans-Asian Railway Northern Corridor”. The MOU established a Steering Committee that met on ad hoc basis to guide the implementation of the project and ensure a smooth collaborative approach among railways. Their work resulted in the implementation of four demonstration runs along the corridor over the period November 2003 – July 2004.

22. In parallel with the above, the secretariat also undertook studies aimed at addressing two critical issues faced by railway operators in the region, namely: a lack of understanding of modern marketing principles in an increasingly competitive transport sector and the destruction of assets (and loss of revenues) caused by accidents at level-crossings. Analyses of these problems and action-oriented recommendations were detailed in the two following reports: (i) “Marketing the Railway Product in the Asia and Pacific Region” and (ii) “Evaluation of Cost-effective Systems for Railway Level-crossing Protection”. In conjunction with the study on marketing, ESCAP developed a computerized model to evaluate the economic and financial viability of railway investment projects. Subsequently, advisory mission and training courses were conducted in selected countries.

23. The Ministerial Conference on Infrastructure of November 2001 mandated the activities to be undertaken during Phase II (2002-2006) of the Regional Action Plan of the New Delhi Action Plan. In particular, it requested ESCAP to formalize the Trans-Asian Railway and Asian Highway networks, and promote the development of intermodal transport systems at the national, subregional and regional levels. Acting on this mandate, the secretariat initiated work on assisting Governments with the formalization of the Asian Highway and Trans-Asian Railway networks through related Intergovernmental Agreements.

24. A dedicated project entitled “Development of an Intergovernmental Agreement on the Trans-Asian Railway Network” developed a draft intergovernmental agreement in cooperation with the United Nations Office of Legal Affairs and based on the “Intergovernmental Agreement on the Asian Highway Network” which had previously been successfully negotiated among member countries. The draft Agreement was considered at three subregional seminars held in (i) New Delhi, India, for countries of South Asia, (ii) Moscow, Russian Federation, for countries of the Caucasus region, Central Asia, North-East Asia and North Asia. Meanwhile, the merits of the Agreement for countries in South-East Asia were highlighted through various forums such as the 1<sup>st</sup> AsiaRail Conference organized by the Government of Malaysia in April 2005 and the Conference of Chief Executive Officers of ASEAN Railways held in Yogyakarta, Indonesia, in July 2005. The Intergovernmental Agreement was finalized at an intergovernmental meeting held in Bangkok in November 2005. The Meeting was chaired by ESCAP and facilitated by a representative of the Office of Legal Affairs from UN headquarters. The finalized Agreement was adopted by the Commission at its 62<sup>nd</sup> Session (Jakarta, Indonesia) through resolution 62/4 of 12 April 2006.

25. The Intergovernmental Agreement opened for signature on 10 November 2006 during the Ministerial Conference on Transport held in Busan, Republic of Korea. On that occasion, 18 member States signed the Agreement. The signing of the Agreement received wide coverage in the international press. Subsequently four more countries signed the Agreement at UN headquarters in New York, namely: Bangladesh on 9 November 2007, Georgia on 18 December 2007, India on 29 June 2007, and Pakistan on 28 January 2008.

26. The Agreement entered into force on 11 June 2009, 90 days after the prerequisite number of eight States had ratified, approved or accepted it. This condition was met on 13 March 2009 when China deposited its approval of the agreement with the Secretary-General of the United Nations. To date a total of twelve member States have consented to be bound by the Agreement, namely: Cambodia on 27 April 2007, China on 13 March 2009, Georgia on 13 May 2009, India on 13 September 2007, the Islamic Republic of Iran on 3 November 2009, Mongolia on 4 September 2008, the Republic of Korea on 5 February 2008, the Russian Federation on 4 January 2008, Tajikistan on 19 February 2008, Thailand on 4 February 2008, Uzbekistan on 28 July 2009 and Viet Nam on 30 September 2009. Meanwhile, the legislative process of ratification, acceptance or approval has

reached an advanced stage in some other member States, e.g. Bangladesh. The current status of signatories and Parties to the Agreement is shown in the Annex.

27. A ceremony to mark the entry into force of the Agreement was held in Bangkok on 11 June 2009 at which representatives of resident missions and the media were present. During the ceremony, video messages from dignitaries from States Parties were shown. In their statements the dignitaries highlighted the importance of the Trans-Asian Railway network and acknowledged the work of the secretariat in facilitating the negotiation process of the Agreement. Messages were heard from: the Minister, Ministry of Public Works and Transport, Kingdom of Cambodia; the Minister, Ministry of Railways, People's Republic of China; the Chairman, Railway board of India; the Minister, Ministry of Roads, Transportation, Construction and Urban Development, Mongolia; the Vice-Minister, Ministry of Land, Transport and Maritime Affairs, Republic of Korea; the Minister, Ministry of Transport, Russian Federation; the Government of Tajikistan; the Minister, Ministry of Transport, Royal Government of Thailand. The news of the entry into force of the Agreement was widely covered by the international media, including TV coverage in Australia, China and Japan.

28. Following the entry into force of the Agreement and as per Article 6 of the Agreement, the secretariat will establish a Working Group on the Trans-Asian Railway network to "consider the implementation of the Agreement and consider any amendments proposed". The 1<sup>st</sup> meeting of the Working Group will take place in December 2009 in conjunction with the 1<sup>st</sup> session of the Forum of Asian Ministers of Transport and a Trans-Asian Railway investment forum. Important items on the agenda of the meeting are to consider any amendments proposed, and discuss policies and issues relating to the development of the Trans-Asian Railway network, such as defining a common vision for the future development of the network and priority investment projects.

29. The Ministerial Conference on Transport of November 2006 recognized the progress achieved in the implementation of the Trans-Asian Railway and Asian Highway programmes and, at the same time, acknowledged that efficient intermodal transport and related logistics activities were still at an emerging stage in most countries of the region. This situation had resulted over the years in a concentration of manufacturing activities and, therefore, economic growth in coastal areas, while trade to and from the landlocked countries and the more remote hinterland areas of coastal countries was trailing behind national averages. As a result, the Conference mandated ESCAP to use both programmes to infuse thrust in the development of intermodal transport and supporting infrastructure - in the form of freight modal interchange facilities and inland ports.

30. Facilitation activities are being carried out by ESCAP, as a component of ALTID, in parallel with activities under the Trans-Asian Railway and Asian Highway programme. Facilitation activities are aimed at making international transport easier, and include measures to make it easier for goods carried by rail and road to cross international borders (e.g. by simplifying and standardizing transport and Customs documentation). Among other things, ESCAP has organized a number of seminars

jointly with ADB, providing countries with information on seven international conventions, listed in Commission resolution 48/11 of 23 April 1992, that address facilitation issues. These include the International Convention on the Harmonization of Frontier Controls of Goods of 1982, which established a legal framework to harmonize border control measures in international transport, harmonize inspection requirements and, if possible, establish joint inspection locations.

31. The above activities, with the exception of facilitation activities, were organized within the framework of the following projects. Many multi-year projects were divided into annual phases according to the requirements of the donor for an annual planning cycle:

- Development of training curricula and programmes for computerized railway operations (1991)
- Development of training curricula and programmes for electrified railway systems (1991)
- Commercialization and nodes of involving private sector operations: proceedings of a seminar-cum-study tour on commercial aspects of railway modernization (1992)
- Singapore – Malaysia – Thailand – Lao PDR – Viet Nam, Corridor study (1994)
- Trans-Asian Railway route requirements: preliminary study on development of Trans-Asian Railway in the southern corridor of Asia-Europe routes (1996)
- Trans-Asian Railway route requirements: feasibility study on connecting rail networks of China, Kazakhstan, Mongolia, the Russian Federation and the Korean Peninsula (1996)
- Trans-Asian Railway route requirements: development of the Trans-Asian Railway in the Indo-China and ASEAN subregion (1996)
- The railway break-of-gauge problem and possible solutions in the ESCAP region (1996)
- Land transport corridors between Central Asia and Europe (1997)
- Marketing the railway product in the Asia and Pacific region – Guidelines for development of a marketing culture, systems and practices in the railway systems of the region (1997)
- “Traincost” Point-to-point rail traffic costing model (1997)
- Development of Asia-Europe rail container transport through block-trains (1999)
- Development of the Trans-Asian Railway – Trans-Asian Railway in the southern corridor of Asia-Europe routes (1999)
- Evaluation of cost-effective systems for level-crossing protection (2000)
- Development of the Trans-Asian Railway – Trans-Asian Railway in the north-south corridor Northern Europe to the Persian Gulf (2001)

- Development of Rail Container Transport through Block-trains – Trans-Asian Railway Northern Corridor – Planning and Implementation of Demonstration Runs of Container Blocks-trains (2001 - 2005)
- Development of an Intergovernmental Agreement on the Trans-Asian Railway Network (2004 - 2006)
- Promoting the role of the Asian Highway and Trans-Asian Railway: Intermodal interfaces as focus for development (2006 - 2008)
- Identifying investment needs and development priorities for the Trans-Asian Railway (2007 - present)

*C. Monitoring and evaluation of the Trans-Asian Railway programme*

32. The Trans-Asian Railway is a long-running programme, and ESCAP has already carried out a number of monitoring and evaluation activities to improve and focus the secretariat's work under the programme.

33. In 1996, an evaluation questionnaire on the ALTID programme was sent to 25 Asian countries. Replies from 16 countries indicated that ALTID has helped countries by providing them with practical guidelines on routes, networks, technical standards and requirements for the development of railway trunk lines as well as national highway of international importance. It also showed that Trans-Asian Railway routes were gradually being included in national and subregional transport plans and suggested that performance indicators be established for each project at the project concept stage to assist in measuring more clearly the effectiveness and relevance of projects.

34. In addition to the annual session of the Commission, senior officials of member countries assess and define the activities of ESCAP at specific sector-oriented events. In this regard, the work of ESCAP in the area of transport has received enhanced scrutiny and high-level endorsement at a series of ministerial conferences organized at five-year intervals.

35. The Ministerial Conference on Infrastructure held in New Delhi in October 1996 launched the New Delhi Action Plan that defined a set of activities to be implemented at the regional level and seeking to focus policy attention on promoting more efficient infrastructure and services taking into account economic, social and environmental considerations. Phase I activities (1997-2001) assisted member countries in enhancing their national capabilities and improving transport efficiency with significant progress made towards the formulation of intra and interregional linkages through the Trans-Asian Railway, the Asian Highway, facilitation and shipping-related programmes.

36. A second Ministerial Conference on Infrastructure held in Seoul, Republic of Korea, in November 2001, recognized the role of ESCAP in assisting its member countries in dealing with transport-related issues in a coherent manner at the regional and subregional levels. The Conference

adopted the Seoul Declaration on Infrastructure Development in Asia and the Pacific and mandated a new series of activities to be undertaken during Phase II (2002-2006) of the New Delhi Action Plan. The Declaration gave UNESCAP a renewed mandate to continue to pursue the development of the Trans-Asian Railway and Asian Highway networks with particular focus on formalizing the two networks and coordinating future work towards the identification of an integrated intermodal transport system, including linkages to and from the main ports and container terminals in the region.

37. A third Ministerial Conference on Transport held in Busan, Republic of Korea, in November 2006, acknowledged the work of ESCAP in formalizing the Asian Highway and Trans-Asian Railway networks through related intergovernmental agreements and advised that the two networks become the major building blocks for the realization of a vision of an international integrated intermodal transport and logistics system for the region. It mandated ESCAP to implement a Regional Action Programme (RAP) for Transport Development in Asia and the Pacific Phase I (2007-2011), thereby recognizing the role of the secretariat in promoting an integrated approach to transport planning with a view to facilitating the emergence of efficient logistic in the region.

#### ***D. Partners and target group***

38. The target group for most Trans-Asian Railway activities is comprised of policy makers, railway managers and transport operators in participating countries. Some outputs are also designed to help donors, international financial institutions and private sector investors with railway investment decisions. Finally, some activities are also of relevance to freight forwarders and logistics providers.

39. ESCAP has a coordinating role under the Trans-Asian Railway programme, which is developed and carried out in close cooperation with national Governments. Governments could therefore be considered both the programme's target group and partners in ESCAP activities under the Trans-Asian Railway programme.

40. Funding for the activities under the Trans-Asian Railway programme has come from the Governments of Japan and the Republic of Korea. The Korean Government has also provided experts to work at ESCAP on the programme continuously since its inception within the framework of the ALTID project. The Government of Germany has also supported some of the corridor studies. Meanwhile, advisory missions to a number of countries for activities relating to specific items under the programme, i.e. marketing railway services, have been provided under the United Nations regular budget for technical cooperation (section 21).

41. Since one of the original purposes of the programme was to develop international rail linkages with other regions, i.e. Europe, partnership with ECE, which has developed the European rail network, has been essential. Former Soviet republics in Central Asia and the Caucasus are members of both ECE and ESCAP. ESCAP and ECE have worked together in these countries through the Special Programme for the Economies in Central Asia to avoid duplication of effort and ensure that

the ECE- and ESCAP-developed rail networks are consistent. ESCAP also hold regular consultations with ECE, the Economic Commission for Africa (ECA) and the Economic and Social Commission for Western Asia (ESCWA) through a meeting held most years among the transport heads of the regional commissions. When budgetary resources or the scheduling of activities do not allow these meetings to take place, the various Commissions share intelligence on a regular basis. A similar collaborative approach exists with the international Union of Railways (UIC) based in Paris and the Organization for Railways Cooperation (OSJD) based in Warsaw. ESCAP has two working Memorandum of Understanding with these two organizations and share relevant information. The project on the planning and implementation of demonstration runs of container block-trains along the Trans-Asian Railway Northern Corridor was conducted jointly by ESCAP and OSJD.

42. Using a subregional approach, ESCAP has worked in partnership with subregional organizations such as ASEAN, ECO and SAARC. ESCAP regularly makes regular interventions at the Working Group meetings on the Singapore-Kunming Rail Link project driven by the ASEAN secretariat and the annual Conference of Chief executive Officers of ASEAN railways to ensure correspondence between the Trans-Asian Railway network and ASEAN trunk lines.

43. ESCAP works in close partnership with donor organizations, notably ADB with which it holds regular consultations.

## **V. FINDINGS AND RESULTS**

### **A. Relevance**

44. Relevance measures whether an activity addresses a real need or demand, as evidenced by situation analysis, stakeholder consultations, global and regional mandates and deliberations in intergovernmental bodies.

45. In general, the Trans-Asian Railway programme must be considered of great relevance. International land corridors are essential trade and transport conduits for many countries in the Asia-Pacific region and are of particular importance for one of the priority groups for ESCAP activities, landlocked developing countries.

46. A number of features speak in favour of a greater utilization of rail transport in Asia. (i) Twelve of the 30 landlocked countries of the world are located on the Asian continent with the nearest ports often several thousands of kilometres away, (ii) the distances linking the main origin and destination, both domestically and internationally, are of a scale on which railways find their full economic justification, (iii) the reliance on ports to connect national economies to the world's markets with the need to clear landside port areas quickly to avoid congestion, (iv) a number of countries are major exporters of mineral resources in the logistic of which rail transport plays a crucial role, and (v) the continuing surge in the volumes of goods being exchanged. These factors have generated among the region's transport planners a growing acceptance of the rail mode and recognition of the

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important role it can play in the national and international movements of goods and people. Consequently, Governments of the region have consistently supported the Trans-Asian Railway programme.

47. Since the inception of the ALTID project, the Commission, at its annual session, has regularly assessed the progress of the Trans-Asian Railway programme and oriented each new phase of activities to suit the region's development agenda. Commission reports have regularly included statements supporting the Trans-Asian Railway activities. For instance, in its resolution 52/9 of 24 April 1996 on Intra-Asia and Asia-Europe land bridges, the Commission urged members and associate members to lend full support and cooperation to the Executive Secretary in implementing activities under ALTID. This support was reiterated by the Ministerial Conference on Infrastructure held in 1996 through the launching of the New Delhi Action Plan on Infrastructure Development in Asia and the Pacific and it underpinned the drafting of the Seoul Declaration on Infrastructure Development in Asia and the Pacific (2001), the Almaty Programme of Actions for transit transport cooperation for landlocked and transit developing countries (2003) and Busan Declaration on Transport Development in Asia and the Pacific (2006). In addition, the Commission at its 62<sup>nd</sup> session (Jakarta, Indonesia, 2006) adopted resolution 62/2 in which it recognized that infrastructure is a key element for realizing sustained economic growth and sustained development to achieve the Millennium Development Goals adopted by the world's governments in September 2000.

48. Governments have a close involvement in the Trans-Asian Railway programme. The ministerial conferences were regularly attended at the highest levels in Governments and adopted a series of regional action plans transforming into a set of actions the spirit encompassed in the declarations. Day-to-day activities of the programme are also carried out in close cooperation with government focal points. Nearly all of the programme's major activities, such as the corridor studies, the study on safety at level-crossings, the implementation and monitoring of demonstration runs of container block-trains along the Trans-Asian Railway Northern Corridor, the drafting and review of the Intergovernmental Agreement on the Trans-Asian Railway Network, were preceded by questionnaires requesting Governments to provide their input in detailed country papers. Survey missions were also organized to selected countries and Expert Group Meetings were delocalized and conducted in different locations to reinforce the ownership of the programme by member countries. Governments have also regularly provided comments on the programme at Commission sessions and at sessions of the former "Committee on Transport, Communications, Tourism and Infrastructure Development" and "Committee on Managing Globalization". They continued to do so at the first session of the "Committee on Transport" held in Bangkok in 2008.

49. ESCAP has a number of features that make it an appropriate organization for this type of project, namely: (i) it covers the entire Asian region, (ii) is a multidisciplinary organization and (iii) is part of the United Nations system.

50. There is recognition that national development initiatives should be complemented by supportive global programmes, measures and policies aiming to expand the development opportunities of all countries, especially the developing ones. In this regard, covering the entire region of Asia (and the Pacific), ESCAP is the only existing organization in a position to coordinate a rail network covering the whole of Asia. ESCAP is also well placed to coordinate the development of the Trans-Asian Railway network with similar activities carried out by its sister regional commissions – ECE and ESCWA – to ensure consistency of approach and the adequate continuation of linkages from one region to the next.

51. Transport networks can affect many aspects of a country's economic and social condition. ESCAP is a multidisciplinary organization and has "in-house" expertise in many fields linked to or affected by transport networks, such as trade, investment, tourism, poverty, health and the environment. Activities on border-crossing facilitation that are crucial to the operationalization of the Trans-Asian Railway network are carried out in close cooperation between ESCAP's Transport and Tourism Division and its Trade and Investment Division.

52. Finally, some issues relating to rail networks can be of a sensitive nature in the diplomatic relations between States. In implementing the Trans-Asian Railway programme, ESCAP fulfils the core nature of the United Nations of providing a forum for policy dialogue and consensus-building at the regional level through an inclusive approach which guarantees that issues are dealt with in a fair and transparent manner.

53. In general, the Trans-Asian Railway programme appears to be highly relevant. There is clear evidence of demand from government stakeholders, who play a significant role in project development. In addition, the programme fits in well with ESCAP's role as a regional organization, a multidisciplinary organization and part of the United Nations Secretariat.

## **B. Efficiency**

54. Efficiency measures the success of the programme in delivering its "result". For formulation exercises, the end result would be the existence of an agreed network. The agreed Trans-Asian Railway network now encompasses 114,000 km of rail routes in 28 member countries across Asia. Formulation activities during the 1990s have therefore resulted in fulfilling the vision of the 1967 Commission session (para. 13 above) and expanded the original concept of a 14,000-km rail link between Singapore and Turkey, via South-East Asia, Bangladesh, India, Pakistan and the Islamic Republic of Iran to a full-blown network. Evaluation questionnaires distributed at the end of each workshop and/or meetings indicated that participants had a consistently high level of satisfaction with travel and conference arrangements as well the information imparted and knowledge gained. Many meetings under the Trans-Asian Railway programme adopted the cost-effective practice of making

use of the United Nations conference facilities at Bangkok. Meanwhile, delocalized meetings were organized and conducted on a least-cost basis.

55. The Trans-Asian Railway programme has consisted of a large collection of individual projects of various duration within the overall framework of ALTID. As a whole, however, the Trans-Asian Railway programme has a number of core, long-running activities, including formulation of the Trans-Asian Railway network, development of technical standards, operationalization of the network. In the past, essential activities like these (whether anticipated or based on ad hoc requests from members) have often been carried out within the framework of projects that primarily focused on specific issues identified by ALTID.

### **C. Effectiveness**

56. Effectiveness measures the success of a project in meeting its “outcome”. For the Trans-Asian Railway programme, the outcome would be a change in the behaviour of the target group, including policy makers, national transport planners, donors and lending institutions. One of the most important indicators of effectiveness would therefore be investment by countries, donors and lending institutions for the upgrading/development of routes that form the Trans-Asian Railway network, including investment aimed at putting in place the missing links, constructing new routes meeting the route criteria set out when the ALTID project was launched, or ensuring that the routes meet the required technical standards. Examples of Trans-Asian Railway development projects since the inception of the ALTID project include the following:

57. Using the 1995 ESCAP study on the development of the Trans-Asian Railway in the Indo-China and ASEAN subregion (publication dated 1996), the ASEAN secretariat launched the Singapore-Kunming Rail Link (SKRL) project aiming at rail-connecting countries of south-east Asia. A first concrete step since the inception of the project was the inauguration in March 2009 of the line section between Nongkhai (Thailand) and Thanaleng (Lao PDR) which is the 1<sup>st</sup> international rail connection for Lao PDR. The connection also gives landlocked Lao the possibility of future direct rail movement to/from the ports of Laem Chabang (Thailand) and Port Klang (Malaysia). The BBC and Singapore’s Straits Times, among other media, observed that the link was part of the Trans-Asian Railway.

58. Another missing link in the Trans-Asian Railway network was put in place when the railways of the Islamic Republic of Iran completed the line section between Faragh, east of Bam, and Zahedan at the border with Pakistan. The completion of the link not only connects the Iranian network with that of Pakistan, but also brings into reality a through rail route from Europe to India.

59. Currently construction work is being carried out on two more missing links in the Trans-Asian Railway network. (i) The 98-km line section between Akhalkalaki (Georgia) and Kars (Turkey) is being put in place with completion planned for August 2011. In May 2009, the head of

Azeri Railway stated that completion of the link together with the completion of the tunnel under the Bosphorus “*will combine the Trans-European and the Trans-Asian Railway networks and increase the region's transit capacity*”. (ii) Work is also progressing on building the 375-km section between Qazvin (Islamic Republic of Iran) and Astara (Azerbaijan). Commissioning of the line will complete the North-South Corridor along western shore of Caspian Sea. The project which will connect the Baltic Sea ports with the Persian Gulf is being promoted by a joint Agreement between the Governments of Azerbaijan, the Islamic Republic of Iran and the Russian Federation. In December 2008, Railway Gazette International observed that once in place the corridor will eliminate the need for shipping traffic down the Caspian Sea and attract international flows between Germany and India.

#### **D. Impact**

60. Impact measures the success of a project in meeting its “goal”. A project’s goal would be something achieved by the project’s target group, probably sometime after the end of a project. Possible goals for this long-running programme might encompass the very broad reasons why rail routes are developed, for instance to provide access, promote regional development cooperation, increase land-based trade or tourism between countries, widen the range of transport options for industry and assist policy-makers in addressing the environmental impact of the transport sector.

61. While the movement of containers in block-trains used to be fairly limited across the region, the demonstration runs implemented by ESCAP and railway organizations in the countries concerned have contributed to show-casing the technical and commercial capabilities of railways in the movement of time-sensitive cargo over long distances. They have given new confidence in railway managers in planning services in a competitive environment and enhanced the credibility of rail in the eyes of industry. For example, in 2007, China dispatched 889 container block-trains from its various ports to Kazakhstan. Meanwhile, 267 and 238 container block-trains were exchanged with Mongolia in the westbound and eastbound directions, respectively. Overall cross-border container volumes on Chinese Railways increased by 49.8 per cent over the previous year. In the Russian Federation, container traffic along the Trans-Siberian main line reached 621,000 TEU in 2007 out of which 206,000 moved between the Republic of Korea and the Russian Federation and 43,600 moved between Japan and the Russian Federation. Railway organizations and shipping lines are also collaborating to test new transcontinental services aiming to exploit the shorter transit times offered by rail over maritime shipping for the movement of high-value cargo between Asia and Europe. In 2007, 52 40ft containers of electronic products were dispatched from Shenzhen to their final destination in the Czech Republic. The train covered the 12,500 km in 17 days. In 2008 a similar demonstration run took place from Beijing to Hamburg when a single train of 98 containers covered the 9,780-km between the two cities in 15 days. Meanwhile, the railways of the Islamic Republic of Iran are running an increased number of services between the port of Bandar Abbas and the landlocked countries of Central Asia and the railways of Malaysia and Thailand are continuing the

operation of container block-train services between ICD and ports in Malaysia and locations in Thailand, primarily but not exclusively in the Bangkok area.

62. There is a resurgence of rail transport through the region with increased investment being channelled into the development of rail infrastructure. While China and India have always had ambitious forward-looking rail development policies, other countries such as Turkey and the Islamic Republic of Iran are allocating more budgetary resources to the development of their national networks with increased attention given to the international dimension of projects. In May 2009, the Government of Nepal which had hitherto focused on road transport to address the country's mobility requirements invited a representative of ESCAP as a key note speaker at a symposium on railway development.

63. Another possible indicator of impact is the level of attention that countries are giving to the programme. In this regard, the recent ceremony that was organized to mark the entry into force of the Intergovernmental Agreement on the Trans-Asian Railway Network (11 June 2009) may provide some indication. Dignitaries from the eight States that were Parties to the Agreement upon its entry into force provided video messages highlighting the importance of the Trans-Asian Railway for their respective countries. Out of these eight countries, messages were sent by 5 Ministers and 1 Vice-Minister. In addition, the ceremony was attended by diplomats from 18 countries, including 6 ambassadors.

58. Increasing attention given to the network by international financial institutions may also indicate the programme's impact. Already the World Bank, Asian Development Bank and Islamic Development Bank have informed ESCAP that special technical assistance funds over and above national allocations can be available for projects of regional importance and investments in Trans-Asian Railway development would qualify.

59. In general, this section considers several rather circumstantial indicators of the impact of the Trans-Asian Railway programme. Given the length of time the Trans-Asian Railway programme has been in existence (and may continue to be), and given the total resources that have been committed to the programme over the years, it might be worthwhile to measure the impact of the programme more systematically. One method that the programme might consider would be to incorporate periodic, external impact evaluations into the programme's planning and resource requests for donors. Comprehensive, systematic, well-designed evaluations of certain impacts of the project might attract further support and help to guide future project design.

#### **E. Sustainability**

61. Sustainability considers the likelihood that the beneficial effects of the programme will continue after it has ended.

62. Sustainability can be considered from a number of angles for the Trans-Asian Railway programme. The most obvious is from the perspective of infrastructure. Once countries build rail infrastructure corresponding to the Trans-Asian Railway routes, the formulation exercise becomes sustainable.

63. Some other aspects of the Trans-Asian Railway programme also appear to require long-term input. Examples of this include inclusion of new routes, realignment of existing routes, and revision of technical standards. As with any long-running programme, future attention should continue to be paid to the impact and effectiveness of ongoing activities. But although the Trans-Asian Railway programme is over 40 years old, activities have certainly accelerated in recent years, and circumstantial evidence points to an increasing level of relevance, impact and effectiveness in a world that needs to transport ever-increasing volumes of trade while facing the challenges posed by finite energy resources and global warming.

## VI. LESSONS LEARNED AND RECOMMENDATIONS

### *1. ESCAP has gradually developed partnerships with other organizations based on clearly defined roles*

64. ESCAP has a clearly defined role as the coordinator of the Trans-Asian Railway programme. Its work compliments that of other partner organizations and is used as a prime reference. National focal points for the programme participate in formulating the network and technical standards, provide relevant inputs to studies upon request and, most significantly, are the entities able to act on ESCAP's Trans-Asian Railway-related work in their countries. Organizations like ECE and ASEAN coordinate networks, and partnership with ESCAP has ensured that these networks are fully consistent. ESCAP is also increasing its interaction with ADB and other donors and lending institutions interested in financing the development of railway infrastructure.

### *2. Government support is essential for the programme's success*

65. The popularity of the ALTID project with governments in the ESCAP region cannot be denied and is due to a large extent to the fact that it has proven to be a flexible and adaptable tool for promoting international and transit traffic, as well as a mechanism to assist countries in defining their national transport policies. In this regard, governments have repeatedly expressed support for the programmes being implemented under ALTID, including the Trans-Asian Railway. This support has been channeled through the Commission sessions, at international intergovernmental conferences and in national media.

### *3. The programme is designed to meet the needs of landlocked developing countries*

66. International transport is essential for landlocked countries. 8 of the region's 10 landlocked countries that operate a railway system have signed the Intergovernmental Agreement on the Trans-

Asian Railway Network. ESCAP continues to place emphasis on programmes, such as the Trans-Asian Railway, to address the specific challenges faced by landlocked countries.

**4. *If possible, the programme might consider diversifying its funding sources***

67. In the past, although strong support for the Trans-Asian Railway programme has been expressed by many Governments and organizations, financial support has come from very few. During the early years of the programme, the United Nations Development Programme provided most of the programme's support, whereas recently most support has come from the Government of the Republic of Korea. A greater diversity of funding sources, if possible, would ensure greater financial security for the programme.

**5. *Multidisciplinary expertise can add another dimension to ESCAP's work***

68. ESCAP is unique in housing multidisciplinary expertise in a number of fields, such as poverty, statistics, the environment, trade and tourism, under one roof. ESCAP's core activities under the Trans-Asian Railway network relate solely to the transport sector, including regional infrastructure development, development and promotion of international policies and laws and acting as a "regional knowledge hub" on transport issues. Nevertheless, multidisciplinary projects add another dimension to ESCAP's work on the Trans-Asian Railway. This aspect is taking on new relevance, especially in view of growing concern about climate change and the search for environmentally-friendly transport solutions.

**6. *The programme should consider periodic, external impact evaluations***

69. The Trans-Asian Railway programme has been in existence for over 40 years. There is plenty of circumstantial evidence that the programme has had a significant impact, including evidence gathered during ESCAP evaluation missions. In future, periodic, external evaluations for this and other long-term programmes might provide information that can assist managers with future programme design.

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## Annex

## Intergovernmental Agreement on the Trans-Asian Railway network Signatories / Parties

To date 22 member States have signed the Intergovernmental Agreement on the Trans-Asian Railway Network and 12 have deposited their instrument of ratification/acceptance/approval/accession with the Secretary-General of the United Nations in New York.\*

The Intergovernmental Agreement on the Trans-Asian Railway Network entered into force on 11 June 2009.

Member States	Date of signature	Date of Ratification, Acceptance (A), Approval (AA), Accession (a)
Armenia	10 Nov 2006	
Azerbaijan	10 Nov 2006	
Bangladesh	9 Nov 2007	
Cambodia <sup>1</sup>	10 Nov 2006	27 April 2007 (A)
China	10 Nov 2006	13 March 2009 (AA)
Georgia	18 Dec 2007	13 May 2009 (AA)
India	29 Jun 2007	13 September 2007
Indonesia	10 Nov 2006	
Iran (Islamic Republic of)	10 Nov 2006	3 November 2009
Kazakhstan	10 Nov 2006	
Lao People's Democratic Republic	10 Nov 2006	
Mongolia	10 Nov 2006	4 September 2008
Nepal	10 Nov 2006	
Pakistan	28 Jan 2008	
Republic of Korea	10 Nov 2006	5 February 2008
Russian Federation	10 Nov 2006	4 January 2008 (A)
Sri Lanka	10 Nov 2006	
Tajikistan	10 Nov 2006	19 February 2008 (AA)
Thailand	10 Nov 2006	4 February 2008
Turkey	10 Nov 2006	
Uzbekistan	10 Nov 2006	28 July 2009
Viet Nam	10 Nov 2006	30 September 2009

\* As per Article 5 of the Agreement, for each State which deposits its instrument of ratification, acceptance, approval or accession after the date upon which the conditions for the entry into force of the Agreement have been met, the Agreement shall enter into force for that State ninety (90) days after the date of its deposit of the said instrument.