

Report No. 13

**THE TRANS-ASIAN RAILWAY NETWORK (TAR):
SOUTHERN CORRIDOR**

Centre for Policy Dialogue

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The Centre for Policy Dialogue (CPD), established in 1993, is an innovative initiative to promote an ongoing process of dialogue between the principal partners in the decision making and implementing process. The dialogues are designed to address important policy issues and to seek constructive solutions to these problems. The Centre has already organised a series of such major dialogues at local, regional and national levels. These dialogues have brought together ministers, opposition front benchers, MPs, business leaders, NGOs, donors, professionals and other functional groups in civil society within a non-confrontational environment to promote focused discussions. The expectation of the CPD is to create a national policy consciousness where members of civil society will be made aware of critical policy issues affecting their lives and will come together in support of particular policy agendas which they feel are conducive to the well being of the country. The CPD has also organised a number of South Asian bilateral and regional dialogues as well as some international dialogues.

*In support of the dialogue process the Centre is engaged in research programmes which are both serviced by and are intended to serve as inputs for particular dialogues organised by the Centre throughout the year. Some of the major research programmes of CPD include **The Independent Review of Bangladesh's Development (IRBD), Governance and Development, Population and Sustainable Development, Trade Policy Analysis and Multilateral Trading System and Leadership Programme for the Youth**. The CPD also carries out periodic public perception surveys on policy issues and developmental concerns.*

*As part of CPD's publication activities, a CPD Dialogue Report series is brought out to widely disseminate the summary of the discussions organised by the Centre. The present report contains the highlights of the dialogue organised by the Centre for Policy Dialogue in association with UN-ESCAP on the theme of **The Trans-Asian Railway Network (TAR): Southern Corridor**. The dialogue was held at Hotel Sheraton on May 30, 1999.*

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Dialogue on
CPD-UNESCAP National Seminar on
The Trans-Asian Railway Network (TAR) : Southern Corridor

i) The Dialogue

The Center for Policy Dialogue (CPD) organised the seminar in collaboration with UN-ESCAP on *The Trans Asian Railway (TAR) Network, Southern Corridor* on 30th May 1999. It is to be noted that the TAR is an integral part of the *Asian Land Transportation Infrastructure Development (ALTID) Programme* which has been ongoing at ESCAP over the last 30 years. Finance Minister S.A.M.S. Kibria formally inaugurated the day long seminar that brought policy makers, bureaucrats, political leaders, experts and academicians together to discuss the project. A list of participants is annexed. During the dialogue presentations were made by Professor Rehman Sobhan, Chairman, CPD, Mr. Atiqul Hossain Khan, Director General, Bangladesh Railway and Dr. M. Rahmatullah, Director, Communications and Tourism Division, UN-ESCAP. An executive summary of the paper presented by Professor Rehman Sobhan is provided in Appendix 1. Paper presented by Mr. Atiqul Hossain Khan is given as Appendix 2. Transparencies presented by Mr. M. Rahmatullah is also annexed.

Address by S.A.M.S. Kibria

Finance Minister S.A.M.S. Kibria called for accelerating the process of linking the economies of Asia and Europe through such projects as the *Trans-Asian Railway (TAR)*. He observed that Bangladesh has the opportunity of serving as the link between South Asia as well as East Asia and that such a unique opportunity should be fully exploited. He said TAR will not only establish international railway links between the countries, but also help the land locked countries in Central Asia to expand trade and commerce.

The Minister said the *Bangabandhu Bridge (Jamuna Bridge)* was a crucial factor for the TAR. But with the completion of the bridge a new dimension has been added in establishing an international communications network in Asia where it will be possible to reach Istanbul from Dhaka by rail. Moreover, the transportation of goods will be faster and more cost effective. Kibria added the TAR would also help expand trade and commerce with the North Eastern states of India as well as with Myanmar and even beyond.

Mr. Kibria pointed out that the establishment of an international railway link is not a new idea. In the late 50's and early 60's the *United Nations Economic Commission for Asia and the Far East (ECAFC)* as ESCAP was the known had initiated work on the Asian Railway, but the proposal was stalled because of political problems and the armed conflicts prevailing in some Asian countries. He observed that the cloud of conflict started to clear in the late 80's and ESCAP was able to reactivate the TAR and ALTID programme. At that time he (Kibria) was the Executive Secretary of ESCAP and was

himself active in promoting this initiative. He pointed that neighbouring Myanmar, which had in the past rejected the proposal for letting the TAR pass through its territory has now fully associated itself with the ALTID Programme.

Mr. Kibria urged the organisers of the seminar to highlight the implications and impact of TAR so that the people could easily understand its importance. Mentioning the huge trade gap between Bangladesh and India he argued that Bangladesh will have to be cautious about estimating the costs and benefits of the TAR network and will have to exploit its potential for reducing its trade imbalance.

ii) Keynote Presentation

Presentation by Professor Rehman Sobhan

CPD Chairman, Professor Rehman Sobhan presented a study report on the impact of TAR on developing international communication links in the region that comprises Bangladesh, Yunnan province of China, India, Myanmar and Thailand which had the acronym of BYIMT and its implications for stimulating development as well as trade within the region. He observed that ALTID was designed to facilitate economic interaction across Asia. Professor Sobhan focused on the contribution of ALTID towards facilitating the further integration of the economies at the interface of South, South East and East Asia. The underlying logic of focusing on BYIMT derives from the fact that it is in this particular region, served by ALTID, that barriers to land communication within Asia remain most in evidence. It is this same region, ranging from Yunnan to Myanmar, extending upto the North Eastern region of India and into Bangladesh which remains one of the more underdeveloped regions of Asia.

He argued that the BYIMT economic region can emerge as a new and dynamic growth zone within Asia, through a process of greater economic integration. As part of this integration process the role of ALTID is likely to be crucial in facilitating the emergence of a unified growth zone and market where investment and production decisions can aspire to encompass the entire BYIMT region. He observed that the dissolution of trade barriers, reinforced by uninterrupted opportunities for physical access are likely to have a transformatory impact on the more backward and landlocked countries/regions within BYIMT, such as Bangladesh, Yunnan, the North Eastern states of India and Myanmar. He also argued that the gradual integration of these economies, with their adjacent regions and beyond to the larger more diversified economies of Thailand, China and India is expected to contribute to dynamising the process of investment growth, leading to economic diversification and sustained economic development of the underdeveloped areas within BYIMT. He was of the view that the physical integration of these marginalised countries/regions of eastern Asia with the more dynamic and larger economies of Asia, and through them with the global economy, adds up to more than the sum of its parts.

Professor Sobhan pointed out that the ALTID network has historical antecedents which have already put in place a transport infrastructure across BYIMT dating back to the colonial era. During the World War II the southern Silk route, also known as the Burma road, from Assam in North East India, through Myanmar to Yunnan province in South West China was reactivated for military reasons. In recent years China has upgraded the old Burma road between Kunming and Myanmar as part of its association with the Asian Highway.

Sobhan indicated that the actual physical investments to rebuild the ALTID network within BYIMT are small and are largely needed to upgrade the AH network in particular places rather than to build new highways. In the rail sector a few gaps remain within the rail network linking Myanmar with its neighbours, Thailand, Yunnan and the North Eastern states of India which will need to be bridged. Yunnan was now examining the feasibility of investing in linking its rail network with Myanmar and Thailand as part of the TAR system.

Professor Sobhan pointed out that the developmental impact of ALTID is grounded in the enormous resource potential of Myanmar, Yunnan Province and North East India, along with the strategic location of Myanmar and Bangladesh within the communication and market chain of the BYIMT region. He observed that trade levels within the region are growing but remain well below its potential. The limited export capacity and the growing import deficits of the less developed regions with their more developed neighbours within BYIMT needs urgent correction through expanding and diversifying their production base. He argued that such investments targeted to realise structural diversification of less developed regions remain predicated upon greater market access to the more developed economies of their larger neighbours and by improving the transport linkages in the region.

Professor Sobhan argued that ALTID is likely to play an important role in stimulating exports within BYIMT by integrating the physical infrastructure for trade as well as reducing transaction and delivery costs. He was of the view that the traffic generation potential from ALTID is likely to be significant for Yunnan, Myanmar, North East India and Bangladesh because of its role in opening up their natural resource frontiers and presenting new market opportunities for these economies.

Finally, he argued that the regeneration of these transport links will correspondingly have to address the political constraints which are likely to inhibit the process of transport integration, particularly in South Asia. He pointed out that the ALTID programme needs political parentage from an ongoing intergovernmental body, willing to invest its political capital in the integration of the transport infrastructure. The newly emerged grouping known by the acronym BIMST-EC may be a possible institutional parent to the ALTID process.

Presentation by Dr. M. Rahmatullah

Dr. M. Rahmatullah, Director, TCTIDD UN-ESCAP explained the concepts of ALTID and

TAR to the participants and also answered questions on this issue. He reminded the participants that the ALTID project comprises of the *Asian Highway* (AH) project, the *Trans-Asian Railway* (TAR) project, including measures for the facilitation of land transportation. He then also mentioned the route criteria for the ALTID project, which covered: (i) capital-to-capital links (for international transport) (ii) connection to main industrial and agricultural centres as well as "growth triangles/zones" (links to important origin and destination points), (iii) connections to major sea and river ports (integration of land and water transport), (iv) connections to major inland container terminals and depots, (integration of rail and road transport) (See Annexure A1, A2).

Dr. Rahmatullah observed that only 5 per cent of the trade in Asia is being carried by the railways and the major means of trade remained the maritime network, whereas in Europe the picture is just the reverse. He, therefore suggested that we learn some lessons from Europe. Dr. Rahmatullah pointed out the factors which, for long have inhibited the implementation of the ALTID project. At the end of World War II many countries of Asia decided to improve road and links among themselves but interstate political and international conditions were not favourable to this endeavour. In particular, the war in Vietnam and Cambodia made the whole project uncertain. Myanmar and Afghanistan also kept themselves out of this integration process. With the resolution of the conflicts in the Indo-China region, from around 1982 the situation became more prospective for reviving the ALTID programme. Today there is little disagreement among the concerned countries to revive road and rail links within the South East Asian region, including Myanmar.

Dr. Rahmatullah said that the preparation within the Southern Asian Corridor to operationalise the TAR is almost complete (See Annexure A3). He mentioned that there has been no disagreement about choosing the rail route between India and Myanmar, between India and Pakistan, between Iran and Pakistan, between Turkey and Iran, between India and Sri Lanka, and between Myanmar and Thailand. He said the controversy over the crossing point between Bangladesh and India has also been resolved and the TAR will now cross Bangladesh at the Shahbazpur point down to Kulaura in Sylhet and enter India at Moishashan point. Then the TAR will enter Myanmar at Tamu from the Indian state of Mizoram. The Asian Highway will also enter India at the Karimgonj point instead of the Tamabil point. It will then enter Myanmar also at Tamu. The Indian government, however had indicated that it wants to develop a regional highway system as part of the Asian Highway so as to link the four other Northeastern states with the main highway. Rahmatullah said that Pakistan has also agreed to allow the TAR through its territory to Iran on condition that a rail link could be established between Pakistan and Bangladesh through India. Nepal had also sought to be integrated into the TAR system at the point of its convenience from Rauxhall at the Nepal border to Rohanpur at the Bangladesh border which was the shortest and most direct link through India. This routing was preferred by the Nepal and Bangladesh over the Indian proposal to establish the TAR link between Nepal and Bangladesh through Calcutta and Darsana which was 300 miles longer than the Rauxhall- Rohanpur Route.

Dr. Rahmatullah pointed out that the issue could be settled amicably and that the meeting of officials of SAARC to address the issue of the TAR route had set up a sub-committee to establish an agreed route for TAR between Nepal and Bangladesh. If TAR links across South Asia are finally agreed then the last hurdle in the way of the TAR upto Iran, would be resolved.

Describing the outcome of the expert group meeting (EGM) Dr. Rahmatullah said the EGM adopted an action plan to follow up the various recommendation already put forward. It (EGM) also has been agreed amongst the concerned countries to pursue various action plans for the completion of the links. He said all countries expressed their willingness and interest to operationalise the routes wherever available.

Presentation by Mr. Atiqul Hossain Khan

Mr. Atiqul Hossain Khan, Chairman, Bangladesh Railway Board presented a paper on *Bangabandhu (Jamuna) Bridge : Opportunities Created by it in Promoting International Rail Transport*. He argued that Bangladesh inherited a railway network which existed at the time of independence in 1971 which again was no different from that which existed in 1947 when the Subcontinent was partitioned. The inherited railway network was hardly suitable to meet the requirements of independent Bangladesh. This was because the road network in this region was virtually non-existent in 1947. The subsequent rapid expansion of the road network in the region has served to change the profile of the transport system in Bangladesh.

Mr. A.H. Khan observed that after 1971 building a railway bridge across the Jamuna was given serious attention by successive governments and a number of studies on its feasibility were also carried out. The continuing emphasis of the Government of Bangladesh had however shifted to the expansion of the road network in order to meet the increasing traffic requirements. This, however, did not proceed very systematically according to any integrated surface transport policy so that investment in the railway sector was limited to the bare rehabilitation and replacement of existing assets. He argued that due to the imbalanced development of the transport system in favour of roads Bangladesh Railway (BR) lost its competitive advantage and gradually started losing its market share which turned it into a losing concern. This process persuaded aid donors to deny investible resources to the BR which further aggravated its problems. Mr. Khan noted that this growing disenchantment of donors with the BR was responsible for the initial decision of the World Bank to exclude any railway link over the Jamuna Bridge.

Mr. A.H. Khan said, meanwhile, some donors such as the Asian Development Bank (ADB) and Canadian International Development Agency (CIDA) had made considerable investment in the railway rehabilitation program of BR. Successful completion of this program styled the *Railway Recovery Program (RRP)*, ultimately led to a revival of support for inclusion of a railway line over the bridge.

Mr. Khan noted that with some time overrun the Jamuna bridge was actually opened to traffic on 23 June 1998. He said on the other hand, the contract for Jamuna Bridge Rail Link Project (JBRLP) could be signed only on 4th of December 1997. He thanked the incumbent GOB for taking a firm decision to have a railway link as of day-one of the opening of the bridge. As a result the 19 km link over the bridge could be completed in less than 7 months. This delayed construction of the rail link over the bridge has led to a situation where the extension of the west zone BG (Broad Gauge) link across the bridge has kept the line disconnected from meter gauge system east of the Jamuna. Mr. Khan mentioned that JBRLP is targeted for full completion by June 2001 which will permit for linking the two systems and permitting through traffic from the western region down to Chittagong port.

Mr. Khan observed that the inclusion of a railway track on the bridge was not the outcome of any careful thinking and planning process. He was of the view that the very decision to provide a railway link as well as provision of BG has opened up immense prospects for the BR system to play a major role in the national as well as international transport arena.

He argued that provision of BG on the bridge has virtually decided the future core network configuration of BR. He mentioned that BR is planning to extend the BG upto Dhaka and beyond to Chittagong parallel to the existing MG (Meter Gauge) (mostly single line). This will help develop the ultimate core network with the BG system in the west zone being connected by BG upto Dhaka and beyond to Chittagong. He said there will be no necessity of retaining any DG (Dual Gauge) over the bridge which is difficult to maintain and operate. This may facilitate further rationalization of the TAR route with a seamless unigauge operation all through the subcontinent. He hoped that Chittagong port will be able to cater to a substantial quantum of sub-regional traffic including that originating from Nepal and Bhutan without any trans-shipment enroute. He was of the view that Chittagong port, being connected to a TAR route of sub-regional importance can become a transport hub for the region.

Mr. A.H. Khan finally argued that notwithstanding the new opportunities some limitations on BG standard loading on the bridge, created due to underestimation of BR's potential role, have to be removed. Initial studies indicate that the rating of the bridge for carrying higher railway axle load can be substantially improved through reengineering, road load regulation and reviewing Jamuna bridge design specifications which are considered rather conservative.

iii) Dialogue Discussion

Dr. Toufiq Ali, Additional Secretary, Ministry of Foreign Affairs, said Bangladesh has some locational advantages and it should exploit those advantages. He cited the experiences of Netherlands who had unique locational advantage in Europe and successfully exploited those opportunities. He also stressed the importance of taking the right decisions for realising benefits in the future. He also argued that the successful operation of BYIMT depended to a great extent on the dynamic role of the private sector in the member countries.

Former Ambassador Rezaul Karim raised a question about the justification of allowing the entry of the TAR as also the Highway from Northeastern India instead of running direct from Bangladesh to Myanmar. Dr. Rahmatullah responded that Myanmar has no viable road at present in the regions bordering Bangladesh. So there is no alternative, at least at the initial stage, to routing both the Asian Highway and TAR from Bangladesh to the Northeastern Indian states to Myanmar. As and when Myanmar completes its link between Yangon and Akyab and can invest in road links to the Bangladesh border, this additional link to the Asia Highway could reinforce the present transport linkages.

Mr. Jamaluddin Ahmed, Former Deputy Prime Minister, GOB sought to ensure if the authorities have calculated the economic benefits that would accrue to the nation or are they only speaking on the basis of some estimates having no reliable basis. Dr. Rahmatullah said there are many estimates. The ESCAP is preparing to commission a new study to quantify the benefits and also recommend structural development of the region including new roads, ports and other facilities.

Mr. M.H. Rahman of Dhaka Chamber observed that as a representative of the private sector he supports TAR. He hoped that TAR will facilitate trade, open up new markets, ensure exposure and promotion of tourism in Bangladesh. He also observed that this will increase competitiveness and comparative advantage for Bangladesh.

Mr. Muniruzzaman, Former Secretary, ERD, mentioned some studies by World Bank and others who have shown that without Indian cargo the economic return from the Bangabandhu bridge will be less than 9 per cent, whereas with Indian cargo TAR will earn high profits and will get higher economic return from the bridge. Therefore, Bangladesh does have a positive interest in having TAR. He argued that two different rail systems in Bangladesh are detrimental for implementation of TAR. Mr. Muniruzzaman, thus, was in favour of a uniform rail system.

Mr. Hasanul Haq Inu, General Secretary, Jatiyo Shamajtantrik Dal, argued that several measures need to be undertaken in order to make the ALTID project viable. These measures include development of an inland container depot, development of container handling facilities, computerisation, tariff setting, upgrading Asian Highways, ensuring safety measures etc. He also noted that there are many socio-political problems which are to be handled effectively to ensure the successful implementation of this project.

Col. (Retd.) Shawkat Ali argued that more should be done to raise the public awareness about this project. He was of the view that economic consideration should override politics. Therefore, economic benefits out of this project should be figured out correctly.

Mr. Mubin, Chairman of Jamuna Bridge Authority said Jamuna bridge is a great achievement,

though many of the facilities are still left unutilised. He noted that monthly revenue from Jamuna Bridge has been more than projected as the number of vehicles crossing the bridge has been exceeding the projection.

Mr. Hadi, Former Secretary, Ministry of Civil Aviation of Tourism, argued that Chittagong and Khulna ports do have the natural advantage over Calcutta port for the land locked countries such as Nepal, Bhutan and the Northeastern Indian States. He noted that there are several problems in the Chittagong and Khulna ports which need to be addressed effectively and solved accordingly. These problems include management related problem, labour problems, lack of upgraded physical infrastructure etc. He, thus, argued for a master plan for the development of these two sea ports.

Professor Sobhan argued for a joint initiative by Bangladesh and Myanmar to approach ADB and other donor agencies for the development of infrastructure in Myanmar so that there could be direct road and rail links between Bangladesh and Myanmar. He said because of the issue of the repression of democracy in Myanmar it had been cut off from aid inflows for some time. This lack of aid as well as foreign investment would compromise the speed with which it could build up its land infrastructure linkages with Bangladesh.

Dr. Rahmatullah pointed out that member countries have argued to form a working group to handle various issues regarding the implementation of TAR and AH. There are several tasks ahead to sort out for the working group, he maintained. He said these tasks include setting up technical standards, setting up common tariff rates, setting up safety measures, signaling system, traffic rules, etc.

State Minister for Foreign Affairs, Abul Hassan Chowdhury urged that some outstanding problems should not be allowed to stall the progress of development of the regional rail and road network. He argued that problems need to be addressed within a wider context. He said that the BIMSTEC regional forum comprising of Bangladesh, India, Myanmar, Sri Lanka and Thailand which has been set up to promote economic cooperation had been keeping an eye on the ALTID programme and has recognised that the economic development of the region will receive a new boost from the integration of the rail and road network of the region. He observed that trade and other exchanges are already taking place between the countries of the region on a wider scale than it was anticipated and the integration of the communication system will create new possibilities for the common people and the private sector availing of its benefits. Tourism will develop and the governments would get more revenue by encouraging official trade to replace informal trade he maintained.

At the concluding part of the seminar Professor Sobhan gave a comprehensive account of the economic and business prospects which the South Asian countries would be able to exploit and benefit from their vast resources by more fully developing the BYIMT region through integrating the land transport infrastructure stretching from China in the east to Turkey and Iran in the West. He warned

that the tide of opportunity which promises to be opened up through integrating the transport system should not be missed on any pretext. To do so would only marginalise the countries such as Bangladesh from the mainstream communications network of the region and would compel it to lose out on the opportunities provided by its strategic location within the land transport network of Asia.

**IMPACT OF IMPROVING INTERNATIONAL TRANSIT LINKS AND
FACILITATION MEASURES IN BANGLADESH, INDIA,
MYANMAR, THAILAND AND YUNNAN PROVINCE OF CHINA***

Rehman Sobhan

Executive Summary

The coverage of the study

The principal objective of this study is to identify the development potential to be derived from integrating *Asia's Land Transportation Infrastructure* (ALTI). The ALTI process is itself part of an ongoing programme at the *United Nations Economic and Social Commission for the Asia and Pacific* (UNESCAP) known as the *Asia Land Transportation Infrastructure Development* (ALTID) programme. The ALTID programme is built around the establishment of an *Asian Highway* (AH) and *Trans Asian Railway* (TAR) system extending from South East Asia, through South Asia to Central Asia and beyond to Europe. The ALTI agenda thus involves the establishment of a seamless land transport communication network designed to permit uninterrupted travel from Singapore to London by road and rail.

The argument underlying the study

Whilst ALTID is designed to facilitate economic interaction across Asia the present study focuses on the contribution of ALTID towards the further integration of the economies at the interface of South, South East and East Asia. The territorial limits of the enquiry are thus reduced to Bangladesh, the Yunnan province of China, the seven North Eastern states of India (Arunachal Pardesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura), Myanmar and Thailand which have been loosely given the acronym of BYIMT. The underlying logic of focussing on BYIMT derives from the fact that it is in this particular region, served by ALTID, that barriers to land communication within Asia remain most in evidence. It is this same region, ranging from Yunnan to Myanmar, extending upto the North Eastern region of India and into Bangladesh which remains one of the more underdeveloped regions of Asia.

The study argues that the BYIMT economic region can emerge as a new and dynamic growth zone within Asia, through a process of greater economic integration. As part of this integration process the role of ALTID is likely to be crucial in facilitating the emergence of a unified

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growth zone and market where investment and production decisions can aspire to encompass the entire BYIMT region. The dissolution of trade barriers, reinforced by uninterrupted opportunities for physical access are likely to have a transformatory impact on the more backward and landlocked countries/regions within BYIMT, such as Bangladesh, Yunnan, the North Eastern states of India and Myanmar. The gradual integration of these economies, with their adjacent regions and beyond to the larger more diversified economies of Thailand, China and India is expected to contribute to dynamising the process of investment growth, leading to economic diversification and sustained economic development of the underdeveloped areas within BYIMT.

The issue of market access

Such a process of structural change and growth in the underdeveloped areas within BYIMT had hitherto been constrained by the limitations of their domestic market which restricted investment incentives and opportunities in these countries. The study thus seeks to establish the proposition that the physical integration of these marginalised countries/regions of eastern Asia with the more dynamic and larger economies of Asia, and through them with the global economy, adds up to more than the sum of its parts. Such a process of physically integrating less developed and more diversified economies is expected to unleash certain economic synergies which could have a transformatory impact on the fortunes of those countries/regions linked by the ALTID network. The development of the resource potential of the underdeveloped economies within BYIMT along with the widening of their market opportunities and the access of these countries to the capital and skills of its neighbours is expected to provide the basis for their structural transformation, export growth and diversification.

Assumptions underlying ALTID

The study seeks to establish that the ALTID network has historical antecedents which have already put in place a transport infrastructure across BYIMT dating back to the colonial era. This infrastructure has atrophied over the years due to the compulsions of politics. The ALTID process is thus designed to regenerate an extant infrastructure rather than build a new infrastructure within BYIMT. ALTID is thus designed to improve facilitation of transport links within BYIMT through removal of the invisible barriers to movement of goods and people across national boundaries. The study indicates that the actual physical investments to rebuild the ALTID network within BYIMT are largely needed to upgrade the AH network in places rather than to build new highways. In the rail sector a few gaps within the rail network linking Myanmar with its neighbours, Thailand, Yunnan and the North Eastern states of India, will need to be covered.

The study points out that the developmental impact of ALTID is grounded in the enormous resource potential of Myanmar, Yunnan Province and North East India, along with the strategic location of Myanmar and Bangladesh within the communication and market chain of the BYIMT

region. The underdevelopment and underutilisation of the resource potential of these three regions, in part originates from their physical isolation, along with the insular policy regimes of some of these countries. The economic isolation of the economies of Myanmar and the physical isolation of the North East states of India, was particularly important in limiting their development potential and has served to aggravate the economic stagnation and social instability prevailing within these resource rich regions. The corresponding impact of physical isolation was much less apparent in the landlocked area of Yunnan province because of its integration into the large and fast growing economy of China but its resource potential remains underutilised because of the lack of access to markets adjacent to its resource rich areas.

Promoting trade through ALTID

The study goes on to examine the trade profiles of the BYIMT regions countries and the prevailing level and composition of intra-BYIMT trade. The study observes that trade levels within the region are growing but remain well below its potential. Intra-BYIMT trade covers only a fraction of the trade of a large externally oriented economy such as Thailand or even large continental economies such as of India and China. In contrast, the less-developed regions within BYIMT such as Myanmar, North East India, Yunnan have their lower volumes of trade more substantively directed within the BYIMT region whilst even Bangladesh has a growing dependence on imports from India. The limited export capacity and the growing import deficits of the less developed regions with their more developed neighbours within BYIMT needs urgent correction through expanding and diversifying their production base. Such investments targetted to realise structural diversification of less developed regions remain predicated upon greater market access to the more developed economies of their larger neighbours.

Whilst market access remains crucially linked to the trade policies of the member countries of BYIMT, ALTID is like to play an important role in stimulating exports within BYIMT by providing the physical infrastructure for trade as well as reducing transaction and delivery costs. Prospective outside investors seeking opportunities within the less developed regions of BYIMT are likely to make investment decisions based on the prospect of access to such a larger physicaly integrated market within BYIMT.

The economics of ALTID

This study goes on to take stock of the state of the *Asian Highway* and TAR network as it extends across BYIMT. It identifies the gaps in the AH and TAR network, the areas needing upgradation, the problems arising from incompatibility in the rail systems within the BYIMT region and the areas where improved facilitation measures are required to promote the integration of the

transport network. The study goes on to evaluate the varying degrees of importance of the ALTID network to the different member countries of BYIMT in influencing the development prospects of the respective country/region.

The study evaluates the economics of the *Asian Highway* and *Railway*. The evaluation makes a distinction between traffic diversion and traffic generation arising out of investments in the ALTID system. It establish that some countries such as Yunnan and North East India, have fewer options outside of ALTID to develop their economies. However it to recognised that Yunnan has access to the sea through China's ports on the Pacific coast so that traffic diversion to the ALTID system is likely to be more useful in stimulating trade between Yunnan and its South Asia and ASEAN neighbours, Bangladesh, India Myanmar, and Thailand. Improved access to these markets in Asia around Yunnan are likely to open up investment opportunities in Yunnan. Thus, the traffic generation potential from ALTID is likely to be significant for Yunnan, Myanmar, North East India and Bangladesh because of its role in opening up their natural resource frontiers and presenting new market opportunities for these economies. ALTID is also expected to enhance opportunities for Myanmar and Bangladesh to establish themselves as entrepots for servicing the cross-Asian traffic made possible by the ALTID system and for providing access to landlocked regions, particularly in North East India, to integrate themselves into a larger market.

The study recognises that the process of economic integration must originate from the opportunities available for trade and the gradual elimination of barriers to such trade. To this end, the study explores the trade potential within BYIMT and the stimulus to this trade provided by the integration of the transport infrastructure of the region.

The study goes on to argue that the disruption in the established transport network of the BYIMT region originated in politics rather than economics. The regeneration of these transport links will correspondingly have to address the political constraints which are likely to inhibit the process of transport integration, particularly in South Asia. The study points out the significant economic costs imposed on the countries of South Asia from not being able to dissolve their political inhibitions to the point where they can reintegrate their transport networks with their neighbours and beyond with Myanmar, Thailand and Yunnan.

The institutional context

Finally, the study reviews the institutional context within which ALTID can be brought to fruition. It points out that the ALTID programme needs political parentage from an ongoing intergovernmental body willing to invest its political capital in the integration of the transport infrastructure. The study examines the role and limitations of SAARC and ASEAN in contributing

to the integration of the ALTID network within the BYIMT region. It argues that an interregional grouping such as BIMST-EC is ideally placed to give political support to any programme designed to integrate the transport network of its member countries. BIMST-EC could thus put its weight behind the completion of the AH and TAR programme including the application of facilitation measures needed in order to provide for uninterrupted traffic flows throughout the region. The study goes on to argue that it may be advantageous for BIMST-EC to take the initiative in exploring ways of associating Yunnan province with the ALTID network because of their proximity to the BIMST-EC and the externalities to be generated by the closer integration between the economies of Yunnan and BIMST-EC.

**BANGHA BANDHU (JAMUNA) BRIDGE:
OPPORTUNITIES CREATED BY IT IN
PROMOTING INTERNATIONAL RAIL TRANSPORT****

Atiqul Hossain Khan

Background

Bangladesh inherited a railway network which existed at the time of independence in 1971 which again was no different from what existed in 1947 when the Subcontinent was partitioned. This network evolved according to the requirements of the undivided Subcontinent.

A look at the network map (**BR map 1**) will show that the orientation was towards Calcutta and Assam region. The western side is dominated by 1676 mm Broad Gauge (BG) which used to connect Calcutta with Darjiling and the eastern side is entirely Meter Gauge (MG) connecting Chittagong Port with its natural hinterland, a major portion of which is now outside the geographical boundary of Bangladesh (north western states of India). Calcutta was connected with Chittagong by rail and river ferry (connecting Goalanda with Chandpur). A line from the main eastern MG corridor from Chittagong branched off at Akhaura to connect Dhaka and the riverport of Narayanganj. Calcutta to Dhaka journey used to be made by rail upto Goalanda and then by steamer service upto Narayanganj. There were two ferry points, one between Bahadurabad & Tistamukh Ghat (passenger as well as wagon ferry) and the other between Jagannath & Sirajganj Ghat (passenger only).

The above network orientation explains why the first major bridge building in the region was done at Paksey over the Padma (Hardinge Bridge) with a double line BG (opened in 1915) and the second was a bridge over the river Meghna at Bhairabbazar (opened in 1973). Construction of any bridge across the Jamuna was not contemplated.

The inherited railway network was hardly suitable to meet the requirements of independent Bangladesh. Average distance between Dhaka and the district headquarters connected both by rail and road is 53% longer in case of rail. This is because road network in this region was virtually non-existent in 1947 and thereafter it gradually developed according to the changed requirements.

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After 1947 some initiatives were taken to develop a plan for railway route and gauge rationalization and suitable river crossings. A project was undertaken to construct a second line between Chittagong and Laksam and between Dhaka and Tongi with BG sub-grade and bridges. Laksam was planned to be connected to Dhaka via Narayanganj through a short route called Chord Line. Further extension of BG would take place from Tongi towards Aricha to be connected with the west zone BG network by ferry. This would ultimately result in a seamless BG network from Chittagong right across the west zone. Unfortunately, the projects were not implemented except for two stretches of second track between Chittagong & Chinkiasana and between Dhaka & Tongi.

Building a railway bridge across the Jamuna was under consideration and a number of studies were also carried out. Meanwhile, emphasis of the government had shifted to the expansion of road network to meet the increasing traffic requirement. This, however, did not proceed very systematically according to any integrated surface transport policy. Investment in railway was limited to bare rehabilitation and replacement of existing assets. Due to lopsided development of the road system BR lost its competitive advantage and gradually started losing its market share. The result of underutilization of a capital intensive transport system like the railway is anybody's guess. BR turned out to be a losing concern. This consequented in the plea taken initially to exclude any railway link when fresh initiative started to construct a bridge over the Jamuna.

Meanwhile, some donors like Asian Development Bank (ADB) and Canadian International Development Agency (CIDA) had made considerable investment in the rehabilitation program of BR. They insisted on a study to be conducted regarding the feasibility of providing a railway link over the bridge before taking any final decision. Initial findings of the consultants showed a favourable rate of return on the incremental cost of providing the railway link. Then the issue of the viability of the railway as a system in the country was put to question. To meet the concern Government of Bangladesh (GOB) and ADB jointly developed a program for revamping the railway system in Bangladesh. Successful completion of this program styled Railway Recovery Program (RRP) ultimately secured a berth for the railway on the bridge.

Meanwhile, much water had flown down the Jamuna. Design and implementation of the main bridge went ahead without any final decision about railway track and the bridge was due to be completed by early 1998. In fact with some time overrun the bridge was actually opened on 23 June 1998. On the other hand, the contract for Jamuna Bridge Rail Link Project (JBRLP) could be signed only on 4th of December 1997. Thanks to the firm decision of the government to have a railway link on the day-one of the opening of the bridge, the 19 Km link over the bridge could be completed in less than 7 months. This however, only ensured the extension of the west zone BG link across the

bridge without any connection with the eastern system. JBRLP is targeted for completion by June 2001. This three year time lag will be a trying time for BR to hold on to its market share as it is heavily losing trans-Jamuna traffic to the road already operational over the bridge.

Rail link configuration on the bridge

The events leading to the final scenario of rail link configuration (**BR map 3**) on the bridge developed in the following sequence, the overlying consideration always being whether a railway link would at all be provided and if so it must be on least cost basis.

It was decided that the bridge design would continue based on no rail scenario, rail being considered after BR met a series of conditionalities and if incremental investment were found justified.

Provision of MG rail was made in the foundation only and subsequently accommodation of an MG track would be considered with suitable modification in the bridge superstructure design. Fortunately, the main contractor of the multipurpose bridge agreed to provide for railway link on the superstructure under a variation order as the additional cost was comparatively insignificant.

Bridge design had already been finalized with a width of 18.5 meter which is just adequate for 4 proper road lanes only. When rail track was added the bridge configuration became seriously restrictive especially for the railway, betraying the doubt in the minds of the decision makers about BR's ability to meet the difficult conditionalities set.

Initially a purely MG route was selected involving the least length of track construction, connecting the nearest MG stations on either side, upto Sarisabari in the east and Bogra in the west. This was a very circuitous route. Later on in consideration of operating cost, the shortest route on the east from Joydevpur (via Tangail) to the Jamuna Bridge was selected. The western MG link to Bogra was abandoned to avoid construction of a new link on the west involving land acquisition and resettlement and also on environmental considerations.

Initially dual gauging of track from the bridge via Ishurdi upto Santahar was considered. This would again create a new detour on the west zone to connect northwest MG sections. Most of the existing BG sections would also remain unconnected with the east zone network.

Subsequently on BR's request extension of DG beyond Santahar upto Parbatipur was considered and found to give a better rate of return.

The route thus selected prompted serious thinking about provision of BG on the bridge and extending the same upto Dhaka.

Ultimately the panel of experts, the co-financiers and GOB agreed to allow a Dual Gauge track on the bridge with certain restrictions especially for BG freight trains. These restrictions are the result on the initial decision to design the bridge for MG rail link. Fortunately, however, ISO containers will be able to move over the bridge inspite of the restrictions.

BR engineers and the consultants were fully convinced about the necessity and feasibility of providing BG over the bridge and they designed the track structure on the bridge in such a manner that no change at all was necessary when decision on Dual Gauge was taken. This was done simply by using BG and MG track rails to serve as guard rails for each other, an obligatory requirement for major bridges.

The above events led to the ultimate decision to construct a DG (BG-MG mixed) rail link from the bridge to Joydevpur on the east and Parbatipur via Ishurdi on the west. This will integrate the MG system on northwest with that on the east and connect the west zone BG network with Dhaka.

Opportunities Created

It will be evident from the above that the inclusion of a railway track on the bridge was not the outcome of any careful thinking and planning process. Fortunately, however, the very decision to provide a railway link as well as provision for BG has opened up immense prospect for BR system to play a major role in the national as well as international transport arena. In a SAARC Transport Study report, published as late as in July 1994 the missing Jamuna Bridge link was indicated as a major handicap. Inclusion of railway link on the Jamuna Bridge dramatically changed the scenario. The four day. Expert Group Meeting (EGM) on the Trans Asian Railway (TAR) Southern Corridor (SC) which concluded in Dhaka on 28 May 1999 could now decide on the main route (TAR S1) passing through Bangladesh (**TAR MAP 2**). This route originating at Kapikule in Bulgaria will pass through Turkey, Islamic Republic of Iran, Pakistan, India, Bangladesh, Mynmar and Kunming in the southern Yunnan province of China, a total length of 11,700 km. This will be further extended to West Europe via Romania, Hungary, and Austria. This route has entry/exit in Bangladesh at two border points. Darsana in the west and Shahbajpur in the east. When the Jamuna bridge rail link will be completed in 2001, there will be no missing link of the TAR route in Bangladesh. Using existing right of way and with no further major investment on infrastructure, BR will be able to carry international traffic. TAR study report of UNESCAP forecasts the highest, number of container (244000 TEUs annually by the year 2006 and 364000 TEUs by the year 2016) via Darsana/Gede among all the border crossings along the route. It is worth mentioning that the Jamuna Bridge feasibility did not consider this traffic. Incidentally, BR now carries only 35,000 containers annually.

Provision of BG on the bridge has virtually decided the future core network configuration of BR. BR is planning to extend the BG upto Dhaka and beyond to Chittagong parallel to existing MG (mostly single line). This will help develop the ultimate core network with all BG in west zone with connection by BG upto Dhaka to Chittagong. There will be no necessity of retaining any MG which is difficult to maintain and operate (**BR map 6**). This may facilitate further rationalization of TAR route with a seamless unigauge operation all through the subcontinent. Moreover, Chittagong port will be able to cater for a substantial quantum of sub regional traffic including that from Nepal and Bhutan without any trans-shipment enroute. Chittagong port, being connected to a TAR route of sub regional importance can become a transport hub for the region.

A project for doubling of track between Tongi and Bhairab Bazar with German financing was hanging in the balance for over a decade. As a consequence of BG link coming upto Dhaka over the Jamuna bridge and the prospect of TAR using this route substantially increased the chances of this project being implemented. A recent study by the German consultants has found an independent BG track from Tongi to Akhaura to be viable. The study forecasts 760,000 tons of traffic through the eastern border crossing point at Akhaura.

Existing Limitations on Railway Operation over Jamuna Bridge

Notwithstanding the new opportunities discussed above, some limitations on BG standard loading on the bridge, created due to under estimation of BR's potential role, have to be removed. Initial studies indicate that the rating of the bridge for carrying higher railway axle load can be substantially improved through reengineering, road load regulation and reviewing Jamuna bridge design specifications which are considered rather conservative. With the present situation ISO containers can move without any problem. Higher axle load rating will be necessary to carry break bulk cargo in the conventional wagons operating in the Sub-continent.

Lessons learnt

The lessons learnt during the development and construction of the Jamuna bridge should be kept in view in formulating the national transport policy. Railway is a fuel efficient, cost effective and environment friendly mode of transport which can hardly be ignored in the context of long haul transportation of transcontinental and sub regional traffic. The importance of extending BG track from Tongi to Akhaura and ultimately to Chittagong can not be over emphasized. It needs to be ensured that this link does not suffer from any restrictions as in the case of Jamuna bridge. Incidentally, five major bridges between Tongi and Akhaura are, at this moment, being considered for Dual Gauge use in the track doubling project. This is hardly a satisfactory proposition in view of the fact that these bridges fall on the TAR S1 route. It is worthwhile reviewing the plan for the road only bridge to be constructed only 110 meter north of existing railway bridge at Bhairab Bazar. Some additional investment can ensure provision of a BG railway track on it thus obviating the need for avoidable heavy investment in future.

Donor Conditionalities

The reform agenda developed for and executed by BR no doubt did immense benefit to the organization. But inflexible position taken to delay the decision to include railway track on the Jamuna Bridge caused considerable difficulties for BR. Although the bridge was completed in 1998, BR can not get the benefit of it until track linkages are completed by 2001. As mentioned earlier, the intervening period of 3 years will be the most trying time for BR to retain its market share. Fortunately, by certain extraordinary measures BR could ensure about 20% growth both in freight and passenger revenue so far during the current financial year. This has been done in spite of substantial diversion of trans Jamuna traffic.

It is, however, recommended with all emphasis that the proposed Tongi-Bhairab/Akhaura double line project should not be delayed on trivial issues like having any particular institutional setup for BR. After all BR has already achieved considerable progress in the field of institutional and organizational reforms like slashing of a third of its manpower, establishing a high powered Bangladesh Railway Authority vested with sufficient authority to operate BR on commercial basis with freedom to fix tariff, associate private sector with its activities, closing down redundant facilities etc. In general, good railway management/operation practices are being established. Reform efforts shall continue side by side with essential investments.

Conclusions

BR network with the rationalization proposals as discussed above will be ready for extensive use both for national & international traffic as and when policy decisions are taken.

Globalization of industries with value addition in different countries substantially increased the volume of intra-industrial trade. This has increased the demand for international transportation. The fast growing garment industry in Bangladesh is creating increasing demand for intercountry transportation of raw materials, intermediate products and finished goods. No country can live in isolation in this climate of global integration of trade, industry and transport. North American Free Trade Agreement (NAFTA) and South African Development Community (SADC) are good examples to follow and to be convinced of the fact that economic integration of even unequal countries can be on win-win- basis. USA's share of NAFTA GDP is over 89%. Still, contrary to general belief Canada's export to USA is not dominated by primary goods but by manufactured goods (over 70% in 1998). Similarly, Mexico's exports to USA is also dominated by manufactured goods (nearly 78% in 1997). Incidentally, this was 72% only in 1993 (pre-NAFTA).

The historical opportunity created should not be missed. Transport corridors are now a days treated as development corridors internationally which open up the opportunity for spatial development. In a multi-modal transport culture nobody will wait for someone hesitating to take

timely decision. If a country does not open up its frontier, alternatives will automatically come up. Political fragmentations are not standing on the way of economic integration. This explains why so many regional economic groupings are evolving. Changes are being noticed everywhere. The CIS states are coming upto participate in world trade outside of Russia. Iran is taking the opportunity of providing them exit to the sea. Bandar Abbas has been connected with a Railway link for this purpose. Iranian railway system is being linked via Zahedan with Pakistan Railways. Bangladesh has also a unique position in the TAR regional scenario. It can avail of the opportunity to shortest routes to international and inter-country destinations and hinterland of the region. We should rise to the occasion and play a pivotal role in developing proper understanding amongst the countries concerned to serve the best interest of the countries and their vast population.

The ALTID Project

Comprising of:

- | **The Asian Highway (AH) project**

- | **The Trans-Asian Railway (TAR) project**

- | **Facilitation of land transport**

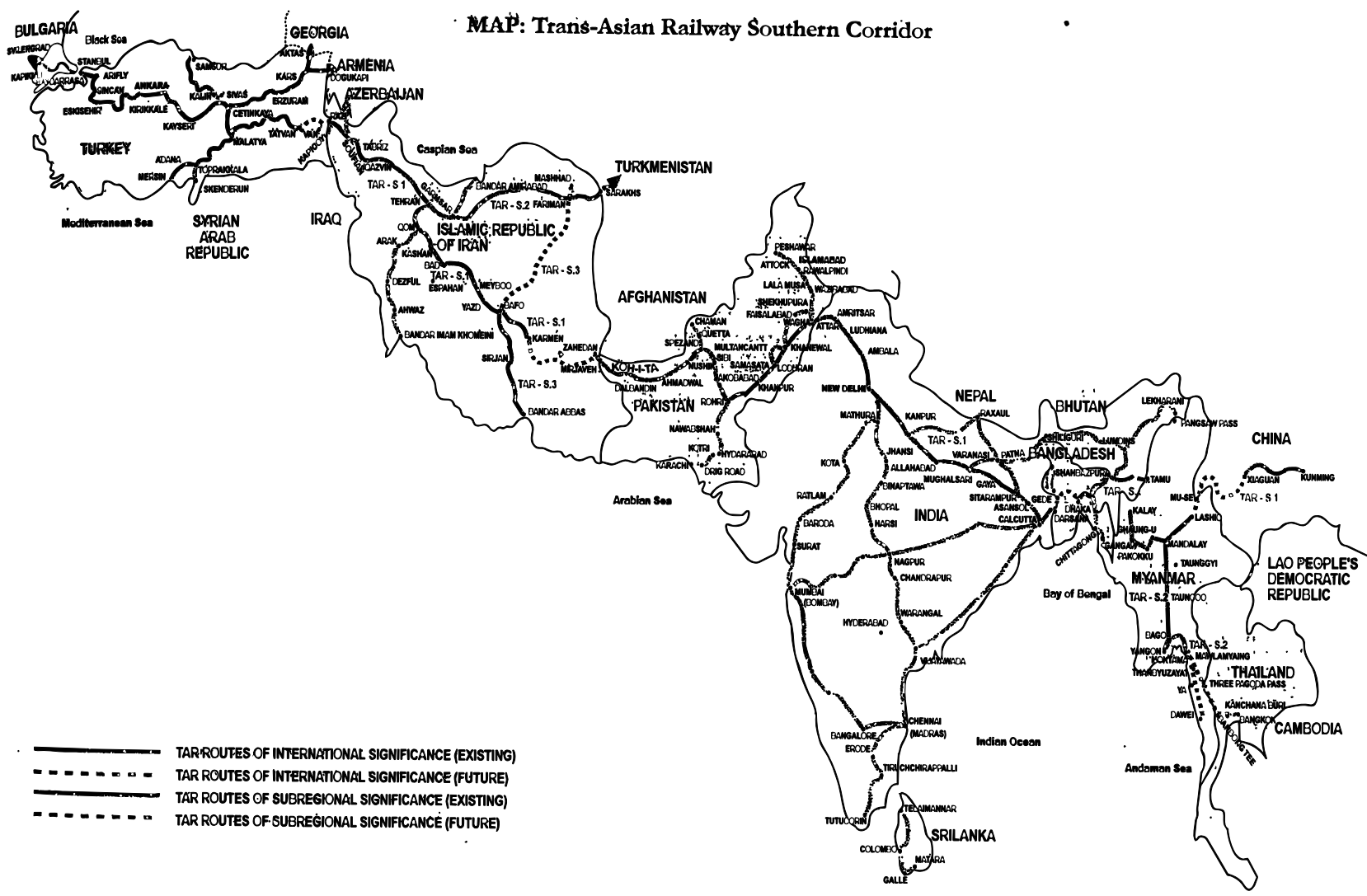
THE ALTID PROJECT **ROUTE CRITERIA**

- | **Capital-to-capital links**
(for international transport)

- | **Connections to main industrial and agricultural centers as well as “growth triangles/zones” (links to important origin and destination points)**

- | **Connections to major sea and river ports (integration of land and water transport)**

- | **Connections to major inland container terminals and depots (integration of rail and road transport)**



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