INTRODUCTION
This report presents the overall strategy that the participating Governments have determined
for development of the Tumen River Economic Development Area (TREDA) and its associated hinterland. The strategy has evolved over the duration of the Tumen River Area Development Programme (TRADP) which is now nearing the end of its first phase. Its evolution reflects the ideas and contributions that have been made by the National Teams that helped develop the strategy and it also reflects and supports the significant developments that have been taking place in the region over the past two years. The strategy is dynamic and will continue to evolve as the development in the region gathers pace.

The report builds on the Preliminary Draft Report "A Regional Development Strategy for the Tumen River Economic Development Area" in three ways. It seeks to summarize the findings from the work done by the Regional Development Strategy (RDS) team and to integrate these with the work that has been carried out by others on sectoral aspects of development in the region. Importantly, it attempts to integrate the environmental considerations that were raised by the recent "Preliminary Environmental Study";

It seeks to add some insights on the perspective of Mongolia since that country was unable to participate in the earlier work of the RDS team. This aspect has meant that the document also includes the broader North East Asia view whilst still placing major emphasis on TREDA;

It seeks to develop the basis for an Action Plan for future work in developing the region as discussed in the most recent Program Management Committee (PMC) in Moscow in July 1994 (PMC (IV)).

The report is presented in 11 sections as follows:
- An introduction to the report;
- Where the Tumen River is located and how it fits into the regional context;
- The vision and goal that Governments have set for development of the region;
- A description of the resources that are available in the region;
- The strategies for development of the key sectors in the region;
- The progress towards development of the region under TRADP;
- The Governments’ broad strategy designed to enable TREDA to compete successfully against other regions;
- The nature of the arrangements for cooperation amongst the participating
Governments in the region;  
The approach to implementation that has been chosen by Governments;  
The benefits expected from this approach;  
Overall summary and action plans.

The report seeks to achieve two purposes:
First, it aims to provide those agencies and potential investors outside the region with an appreciation of the potential of the region and to summarize the substantial progress that has been made in developing the region.  
Second, it seeks to provide those Governments and agencies involved in the continuing regional development with a summary of the agreed development strategy and a outline of the Action Plan that will deliver the benefits all Governments seek from the Programme in the future.  
These two purposes are closely linked—development of the region requires both the commitment of Governments to an agreed, realistic cooperative development strategy and the support of outside agencies and investors.

THE REGIONAL FOCUS
The geographical scope of the Tumen River Area Development Programme (TRADP) has been defined more by the actual and potential economic linkages amongst participants than by any strict geographical boundaries such as those of a river basin. As a result, TRADP has had two levels of geographic focus—TREDA and its broader hinterland in North East Asia (NEA).
As will become evident from this report, the strategy for development refers both to the narrowly defined TREDA and to the broader NEA hinterland. Nonetheless, TREDA is the principal target area for development and is seen as the generating the basis for the regional growth.
The major focus of TRADP has been on the development of the resources of TREDA which has been defined to include all of the major growth centres in the local administration areas adjacent to the Tumen River that forms part of the boundary between the Democratic People's Republic of Korea (DPRK), the People’s Republic of China (PRC or China) and the Russian Federation (RF or Russia). These local administration areas comprise North Hamgyong Province in DPRK, The Yanbian Autonomous Prefecture in Jilin Province in PRC and the
southern and central part of Primorsky Territory (or Krai) in RF. The growth centres within
these administrative areas comprise: The Rajin-Sonbong “Golden Triangle” and the port city of
Chongjin in DPRK; the Hunchun Border Economic Cooperation Zone and the cities of Yanji
and Longjing in PRC; The Nakhodka Free Economic Zone and the cities of Vostochny,
Ussuriyisk, Vladivostok and the Khasan district of Primorsky Krai. The development of the resources in TREDÁ will draw on and be closely integrated with
development elsewhere in the broader region of North East Asia. This integration particularly
involves the eastern part of Mongolia which has strongly developing trade and economic
linkages with North East China and the Far East of Russia. Similarly, although for different
reasons, the Republic of Korea (South Korea) has growing economic linkages with TREDÁ

THE VISION AND GOALS
THE VISION FOR DEVELOPMENT
The Vision shared by the participating Governments is that the welfare of people in TREDÁ
and in its North East Asia hinterland will improve rapidly as a result of development of
infrastructure, industry and trade in forms that are ecologically and economically sustainable
and equitable. This development will provide benefits for all participants, including those
outside TREDÁ, and will be made possible through varying forms of cooperation amongst
participating governments. More specifically, the Governments envision the future as one in which the people in the region
become part of a vibrant, rapidly developing region with closely integrated economies. The
sources of growth are expected to be twofold but inter-related: the expansion of industry and
trade as a result of increased investment and reduced impediments to trade; and the
expansion of transit trade as a result of improved transport capacity and access to new or expanded eastern ports.
There are some important implications arising from this vision:
    The Governments’ ultimate goal is to improve the welfare of the people in the region;
    The Governments have agreed that development must be ecologically sustainable and
must not adversely impact on the environment which would reduce its capacity to
provide benefits for future generations—this means that development projects
will need
to pass environmental impact assessments;

The development must be economically sustainable and so must be based
on sound
economic analysis—the projects must pass the benefit-cost test using world
prices;

Although the initial emphasis may be placed on the geographical
region known as
TREDA, the effects of such development will be felt beneficially outside
TREDA and
specifically in Mongolia and in the ROK. More generally, the beneficial
effects will be
felt throughout North East Asia (NEA).

THE GOAL AND OBJECTIVES
The goal of participating Governments is to accelerate the rate of economic
growth and
improvement in social welfare of the people in TREDA and therefore in North
East Asia by
working individually and cooperatively (both bilaterally and multilaterally)
to establish and
maintain a more attractive investment climate and by facilitating the growth
of intra-regional
and transit trade whilst conserving the environmental values of the region.

RESOURCES AVAILABLE

TREDA and its hinterland are particularly rich in a
wide range of resources. This resource base provides
a comparative advantage over other regions and will
prove to be one of the major attractions of the region
to potential investors. Although the region is rich in
resources, its Governments are conscious of the need
to manage those resources in a sustainable manner so
that they can provide benefits into the future.
This section briefly describes the resources available
in TREDA and the region overall and assesses their
strengths and weaknesses in comparison to those of
competing regions. It also outlines the environmental
considerations that Governments are likely to take into
account in planning for the future development of the
region.

INTRODUCTION
TREDA and its hinterland in NEA are resource rich in comparison with
neighbouring
development zones. The Governments participating in TRADP are concerned that
these
resources are used efficiently to provide the greatest possible long term
benefit: and they have agreed to cooperate in their utilization so as to ensure their sustainable and profitable use. The strategy that Governments are adopting has two major considerations. First, it judges that the resources would be used more efficiently and beneficially if the economies in the area were more closely integrated. This would allow resource use to reflect comparative advantage. Second, Governments judge that greater long term benefits would flow from these resources if their use were subject to some common environmental guidelines. This would reduce any adverse environmental impacts from development and avoid costly impact mitigation measures in the future. The sections below briefly outline the relevant considerations for the region’s resources from these two perspectives of comparative advantage and environmental sustainability.

**HUMAN RESOURCES**

The current population of TREDA is estimated to be around 3.5 million. TREDA is defined here as comprising: Yanbian Prefecture in China with 2,138,000 people; the part of Primorsky Krai in Russia which is south of Artem but including Vladivostok, Nakhodka and Vostochny with about 1,200,000 people; and the northern part of North Hamgyong Province in the DPRK with 140,000 people. The population of eastern Mongolia is some 137,000 and, within Mongolia, it is these people that are likely to benefit most from future development of TREDA.

The rate of population and economic growth within any part of TREDA will depend on the policies and resources that are in place in that part of the region. Based on information currently available, it is likely that the population growth in the period to 2000 will be in excess of 10% per annum in the growth zones such as Hunchun and Rajin-Sonbong and perhaps 5% per annum for the more densely settled and more developed parts such as Nakhodka and Khasansky.

Each of the Governments of the region has policies that support continued improvement in education and health services and current levels of these services are adequate to provide a basis for sustained economic growth in the region. The occupational distribution of the workforce varies considerably within TREDA and it is
changing as the area develops. Agriculture provides employment for about one third of the workforce in Yanbian Prefecture but less than 6% in Primorsky Krai although the fisheries are major employers in coastal towns and cities. The level of education, skills and incomes of the people of TREDA also varies considerably throughout the area. A high proportion of workers in Primorsky Krai have received high levels of technical training and there is generally a small but well-trained core of technically-skilled workers available throughout the region. In those parts of the region where such skills are more abundant, such as in Primorsky Krai, there is a comparative advantage for technology-intensive production. There are relatively large numbers of unskilled labourers available in the southern parts of TREDA and in eastern Mongolia. Wages for labourers are lower in these areas than in the more developed areas of southern China and this provides the region with a strong comparative advantage for labour-intensive manufacturing. In summary, in comparison to other economic development zones in Asia, the workforce in TREDA has a very strong comparative advantage in labour-intensive manufacture and assembly but it also includes an unusually high level of technically-skilled operators.

LAND RESOURCES
The land resources of TREDA have been outlined in the Preliminary Environmental Study. A high proportion of TREDA, certainly over half, is described as mountainous with the balance being coastal plains or river valleys. Agriculture is concentrated on the flatter land and the river valleys. The predominance of steep land coupled with a highly indented coastline provides attractive scenery with high landscape values. It also results in potential concerns with soil erosion and, when considered in association with the drainage patterns, gives rise to strong environmental interactions between different parts of the region. Consequently, erosion or pollution in the upper part of the area can have serious downstream effects, some of which may occur across national borders. The Preliminary Environmental Study recommends that an expert assessment of landscape values of the area is needed as one component of a regional identification of appropriate land uses. The land use within TREDA is not comprehensively documented. In Primorsky
Krai, which has the highest proportion of flatter land, the population is low and there is little land used for agriculture. In the past it is understood that the southern part of the area was used for cattle and rice production. There are several large scale fur farms and deer farms as well as several small aquaculture operations in the Khasan district. Within Yanbian Prefecture, agricultural land use is associated with the river valleys, predominately the Tumen but also its tributaries. Generally only about 10 -12% of the area is arable. There are reports of serious erosion problems in some catchments said to be associated with the clearing of steep lands. Sediment loads in the rivers are much higher than elsewhere in China. There is no information available on land use within DPRK but it is likely that all available arable land is used intensively since it is in relatively short supply. Part of the area has been designated as parks or reserves of various kinds. Within TREDA in Primorsky Krai, there are three reserves. The Kedrovaya Pad (18,000 ha) seeks to protects several endangered species and to provide a representative sample of one of the main Bioregions of North East Asia. The Barsoviy Zakaznik is a reserve used to build up and to protect the world’s last population of Amur Leopards. The third reserve is the Far Eastern State Marine Reserve (Dalnevostochny Reserve) which comprises three sections: an area along the coast and the sea adjacent to the Gamova Peninsula which is a Total Protection Area representing the ecosystems of Peter the Great Bay; an area along the coast and sea adjacent to the Tumen River Wetlands which is designated as a Scientific Research Zone; and a area around Popov Island in the North which includes the headquarters of the Reserve management. Within TREDA in Yanbian there are four nature reserves. The most significant is Laoyeling Reserve which is adjacent to Primorsky Krai’s Barsoviy reserve and seeks to protect the Siberian Tiger and the Amur Leopard. A major reserve is located outside TREDA to the south to protect part of the Changbai Shan Biosphere Reserve. Eastern Mongolia has vast resources of relatively fertile land (steppe) much of which is currently unused. Most of the land is natural grassland with only small areas
cropped. It was reported that Mongolia has capacity for livestock population of some 5 - 6 million head compared with a present population of some 2 million. Also, Mongolia is understood to have some 270,000 ha of fertile crop land and there have been some investigations of commercial rice production by a Japanese company.

WATER RESOURCES

Freshwater Resources

The freshwater resources associated with the Tumen River Basin have been studied reasonably thoroughly as part of the TRADP. In terms of comparative advantage, it would appear that TREDa is not well-endowed with water resources and that some areas within TREDa such as southern Primorsky Krai may face water supply constraints. Cooperation amongst the riparian countries could provide significant benefits both through possibilities for sharing water supplies and, more importantly, through possibilities for reducing effects of downstream pollution and stream erosion.

Parts of the area are reported to be flood-liable and there has been a suggestion of a need to take greater account of this in determining land use in the low-lying areas. Water quality is reported to be a problem both for domestic and industrial use in the lower reaches of the Tumen River. It is also reported to have declined to such a level that the lower reaches of the Tumen River are biologically dead in winter and its fisheries have been virtually wiped out. Some studies report that 90% of the pollution in the Tumen River results from four sources—an iron mine and three factories.

TREDa includes three linked areas of wetlands that are reported to provide internationally significant refuge for wildlife: the wetlands adjacent to the Tumen around Jingxin in Yanbian Prefecture; the coastal wetlands associated with the mouth of the Tumen; and the shallow coastal waters in Posiet Bay and around offshore islands. These wetlands are reported to be the most environmentally significant part of TREDa.

Marine Resources

The seas adjacent to TREDa are particular productive and fish products provide 75% of Primorsky Krai’s exports and a large share of DPRK’s exports. Nearly all of the fish come from offshore waters. Part of the high productivity of these offshore areas is the result of the mixing
of the warm northerly (‘Korean’) current with the cold nutrient-rich southerly (‘Primorsky’) current. These conditions provide the fishing industries in Primorsky Krai and DPRK with a comparative advantage in fisheries production. The long term productivity of these fisheries depends on avoidance of over-fishing (resource management) and of pollution of the area. Both aspects will require cooperation amongst the countries exploiting the resources and those potentially contributing to pollution in the area. The inshore fisheries adjacent to TRED have understood to have been over-fished and will require good management to allow recovery to take place.

In recognition of the importance of protecting the area, Russia established the Far East State Marine Reserve in this area in 1978 and has created several zones within this 630 sq km area.

FORESTRY AND OTHER VEGETATION RESOURCES

The forest resources of TRED and, more particularly those in the adjacent parts of the Russian Far East (Khabarovsk and Amursk), are regarded as offering the basis of one of the most promising sectors of industrial development in the region. The region has a comparative advantage over other areas as a result of its proximity to the major markets of USA, Japan and China. Russia’s Far East is regarded as one of the more important future world source of supply of softwoods and although the supply area lies outside TRED to the north and north-east of Vladivostok there would be strong economic benefits within TRED if these resources were managed on a sustainable basis. Within TRED, the forests have already been selectively logged and future commercial production would require clear felling and the establishment of plantations. The harvested low grade timber from the clear felling would be used for pulpwood production.

Studies carried out as part of TRADP have identified a range of options for phased development of the forest resources in association with sound environmental management. The Preliminary Environmental Study reported that fires and logging have had heavy impact on the vegetation in the Chinese and, to a lesser extent, in the Russian parts of TRED. The original coniferous forests have been replaced generally by deciduous forests of lesser value.
Logging practices have been poor. Although generally the natural (primary) forests are now found in mountainous areas, there are reported to be larger areas of remnant forests in the Changbai Mountains to the south. The Changbai Shan Nature and Biosphere Reserve is the largest remaining area of temperate forest in China. TREDA is reported to be within a region which is regarded as a globally important reservoir of bio-diversity and both China and Russia are currently developing bio-diversity action plans. There are reports of there being some 1,200 economic wild plant species in the Tumen River catchment.

MINERAL RESOURCES
The mineral resources within and adjacent to TREDA and Mongolia are extensive and there is widespread interest in the region amongst major international mining and processing companies. The economic potential of most of these resources have not been assessed and there is a need to help facilitate such assessments as quickly as possible. Until this is done, it is impossible to be definitive about the mineral potential and the comparative advantage that it will provide to the region. However, it is clear that there will be increased exploitation of these resources and this will help develop the region in three ways. First, it will generate a demand for infrastructure improvements and help justify investment in these improvements. Second, it will lead to increased export earnings. Third, it will help industrial development by providing raw materials.

There are extensive mineral resources in Mongolia, of which currently only the Erdenet copper reserves have been developed. The export of copper concentrates from this mine could be important in the development of alternative trade routes from Mongolia east through China to the TREDA region. These concentrates and other minerals could provide the "base load" for alternative transport links from Mongolia through TREDA. Apart from copper, the mineral potential in Mongolia includes: lead; zinc; silver; gold; selenium; tellurium and uranium. There are six polymetal deposits (silver/lead/zinc) that have been surveyed near Choybalsan by Japanese companies and US and Russian firms have shown interest in the uranium. There are four extensive coal deposits and some oil reserves and several US
companies are prospecting for oil. There are very extensive mineral reserves in Eastern Siberia. Exports of these minerals or metal produced from these minerals are already a major part of throughput of the TREDＡ ports and will continue to be important to the development of both rail and port facilities in Primorsky Krai. The quality iron ore reserves in DPRK, together with the coking coal reserves in Heilongjiang and reserves of many key minerals necessary for the production of ferrous alloys already form the basis of a significant ferrous metal industry in DPRK. They could provide the basis for an expanded industry either within TREDＡ or on the periphery of TREDＡ which could be a significant exporter in its own right as well as supporting the development of higher value added manufacturing industry in the TREDＡ region.

TOURISM RESOURCES
TREDＡ has considerable potential as a tourist destination both for local and international tourists. The major attractions of the region are its cultural richness, scenic beauty, ecological diversity and interest and its scope for water sports. It has particular potential for the development of eco-tourism given its unique bio-diversity and large numbers of rare plant and animal species. The mouth of the Tumen River has possibilities as a holiday resort, Yanbian Prefecture offers interesting examples of Korean culture, the Rajin-Sonbong area has potential as a maritime resort with mountain scenery and hot springs, and Primorsky Krai offers a beautiful coastal area suited to a range of leisure activities as well as hunting, fishing and cultural interest. The relatively warm waters of the southern part of Primorsky Krai including Posiet Bay make the region attractive for water sports. Outside TREDＡ, Mongolia offers unique scenery, rare animals and plants, interesting history and culture along with opportunities for fishing, hunting and camping.

SECTORAL CAPABILITIES AND STRATEGIES

Balanced development of TREDＡ and its hinterland including Mongolia requires that attention be given to the formulation of strategies for each of the major
sectors of the economy. Governments have agreed to develop such strategies in a co-operative manner to ensure that best use is made of the resources and potential of the region. The underlying theme for all strategies is that they must build on the comparative advantages of the region and help build a competitive edge that will attract investment and sustainable development to the region.

This section examines the capabilities of those sectors with potential for development and outlines the strategy that seems best suited to each sector. It takes the perspective of comparative advantage to indicate how TREDA might compete with other regions and establish a competitive advantage.

THE SERVICES SECTOR
Successful development of trade and industry in TREDA will require ongoing improvements in the services provided throughout the area. The participating Governments have made a strong commitment to ensuring that the services available in the region are world class and that they are provided efficiently and in response to demand. Under the TRADP, Governments have participated in the formulation of indicative masterplans for infrastructure development and telecommunications which are recognized as being of critical importance to the development of the region. These masterplans have the full support of the Governments and have identified priority actions based on assessments of likely future demand for the services. The Governments have commenced work to prepare the way for external investment in these projects by supporting designs and concepts that will avoid excessive and wasteful competition and by indicating a willingness to make their own commitments of resources both to the feasibility studies and to part of the investment requirements. Even more importantly, in order to boost investor confidence and help to ensure profitability of the investments, Governments have indicated a willingness to negotiate pricing and regulatory arrangements in relation to the services to be provided.

The Transport Sector
The work carried out under TRADP has confirmed the assessment of Governments that the
current transport capacity in TREDAA is inadequate to serve present demands and that future expansion of trade and industry requires significant expansion in transport capacity. Improvements in the transport sector are recognized as the most important step to accelerate development in TREDAA and eastern Mongolia. The participating Governments have agreed that the broad transport sector strategy will be to progressively develop an integrated modern transport network that has the capacity to meet two major transport tasks: to service the growth of industry and trade within TREDAA and between TREDAA and its hinterland including North East China and eastern Mongolia; and to capture part of the transit trade from North East China and central and eastern Europe so that it can be re-directed to a number of expanded TREDAA ports serving as gateways to and from the Pacific Rim markets. Sea Ports The region has a significant comparative advantage over other development zones in that it is strategically located in an area that can and already does provide gateways to the Pacific, and that it already has a number of excellent ports with good prospects for expansion. In contrast to the ports serving southern China, the TREDAA ports are under-utilized now and they also can be rapidly expanded to match the large increases expected in future demands. The initial improvements in capacity are expected to require only minimal investment since they will result from better management of the ports and their facilities. The broad threat that must be carefully assessed is that the ports outside the area may develop faster and reduce the volume that can be competitively handled through the TREDAA ports. This makes it important that the expansion plans for TREDAA ports are realistic and that they are implemented in a manner that leads to greater efficiency and lower handling costs. The broad strategy for the TREDAA ports that has been recommended as part of the Infrastructure Masterplan is as follows:

Vostochny—servicing transport associated with its role as eastern terminal of the Trans Siberian Railway and expecting expansion to handle more potash, oil and grain;

Nakhodka—servicing regional trades and expected to expand its oil handling capacity;
Vladivostok—servicing local industries and general export/import trades;
Zarubino—servicing part of the growing trade from within TREDA especially from Yanbian and part of the diverted transit trade from NE China (especially Heilongjiang and Jilin) and ultimately from Mongolia. (Development of the port at Zarubino will need to include appropriate safeguards to protect the fragile and economically and ecologically important marine ecosystems dependent on the Tumen River/Posiet Bay wetlands);
Other Russian ports—expected to develop in response to demands and include Sukhodol, Bolshoi Kamen, Chazhma near Dunai and Narva near Bezverkhovo;
Rajin—servicing part of the growing trade from within TREDA especially from Yanbian and part of the diverted transit trade from NE China and ultimately from Mongolia;
Chongjin—servicing regional trades and part of the growing trade from the southern part of Yanbian.
In order to build on the comparative advantage offered and turn this into a competitive advantage for the transport sector, the key recommendations for short term action in the Conceptual Infrastructure Masterplan are to:
use Inland Container Depots to allow transit through Russia and DPRK to China (and ultimately to Mongolia);
continue development of the Zarubino and Rajin ports by planning for the establishment of two PANAMAX container berths in each.
Railways
The railway network needed to serve TREDA and the transit trade is largely in place and thus offers a comparative advantage to the region since it is the preferred transport mode for most of the freight likely to be handled. The broad strategy for improvements within TREDA itself should be to: complete the missing links in the network; to improve the integration of the network by minimizing the need for gauge changes; and to improve capacity in the short term through improvements in management of the network.
The key recommendations for short term action in the Conceptual Infrastructure Masterplan are to:
complete the missing links i.e. Hunchun - Zarubino and Hunchun - Saebyol;
prepare market demand studies;
upgrade the network in TRED A eliminating the need for gauge changes where possible;
review all operating alternatives to defer the need for capital investments.
As part of the broader strategy for infrastructure development in the North East Asia region including TRED A, the Russian authorities at the Moscow Working Group Meeting stressed the need to integrate the rail network within TRED A with that linking TRED A to NE China (Harbin-Mudanjiang-Ussur i yisk and Harbin-Mudanjiang-Tumen). In addition, Russia has proposed that railway improvements should also include reconstruction and augmentation of existing rail links including: Ugolnaya-Vladivostok; Ugolnaya-Nakhodka; Ussur i yisk-Baranovskiy; Baranovskiy-Makh alino; Baranovskiy-Amursk Bay; Makh alino-Khanka; and Ussur i yisk-Grod e kovo. Russia plans to: re-develop a number of stations and junctions; to build new stations (Ussur i yisk-Sortirov ochnaya and Kamyshovaya); and to augment the rail links to ports and border crossings including: Sukhanovka-Zarubino; Yekaterinovka-Vostochny; Grodekovo-Suifenhe; and Makh alino-Hunchun. Russia also plans to investigate the feasibility of new rail links including: a By-pass of the city of Artem; and a section of rail linking the bridge at the Raz dolnaya River Mouth.
Mongolia’s development strategy is largely reliant on establishing improved rail links, initially to the Chinese network and ultimately to the TRED A ports. The preferred link that is under consideration by the Governments of both countries comprises a 470 km section linking Choybalsan with Yirshi in China. The critical issue will be the economic viability of such a link and this seems dependent on development of high value minerals that would justify such expenditures.
China has also accorded a high priority to the investigation of the feasibility of linking its railway network with Eastern Mongolia.
Roads and Highways
The roads and highway network within TRED A is limited and in poor condition and provides no comparative advantage to the region in comparison with other areas. This argues against TRED A attempting to develop industries that are dependent on good road networks i.e. those
needing to move goods or people quickly. The broad strategy recommended for the roads and highway sector is to: give priority to roads that enable better use to be made of sea ports; link the major cities to the major ports; and to introduce harmonized regulations for road design and specifications of load limits etc.

The key recommendations for short term action in the Conceptual Infrastructure Masterplan are to:

- complete the primary highway network linking major cities and ports as soon as is practical;
- monitor traffic and forecast demand to assist future planning;
- establish highway maintenance systems in each country.

The specific proposals for improvements proposed for inclusion in the Masterplan by Russia include:

- Reconstruction of A-188 Artem-Nakhodka; M-60 Artem-Ussuriyisk; A-189 Raznolnoye-Border; A-184 Ussuriyisk-Pogranichniy; A-198 Pokrovka-Poltavka; M-60 by-pass Artem-Nakhodka; connection of M-60 and A-189 with the bridge on Razdolnaya River; and construction of Sedanka-De-Friza Peninsulat-Nadezhdinskaya road out of Vladivostok.

**Air Transport**

TREDA is currently served by three airports located at its periphery and although there is no centrally located airport, all of the commercial centres within TREDA can be reached by road.

The location of TREDA straddling three national borders, the existence of "no-fly zones" and the limited access to international airways raises some difficulties with air services to TREDA.

The broad strategy recommended for air transport is to: make best use of the existing facilities in the short term by strategic improvements; to provide a mechanism for coordination of air transport development in the region; and to conduct an air transportation study that would lead to an overall development plan for the sector.

The key recommendations for short term action in the Conceptual Infrastructure Masterplan are to:

- complete the planned improvements to facilities and services at Vladivostok and Yanji as soon as is practical;
- establish a mechanism to coordinate air transport development;
- prepare a Development Plan.

Russian authorities note that the international air cargo facility at Zolotaya Dolina will be
available to serve the Nakhodka Free Economic Zone and they have proposed heli-pads in
Vladivostok, Nakhodka, Zarubino and at border crossings Khasan-Tumen-Ula, Kraskino-
Hunchun, Poltavka-Dunnin, and Pogranichniy-Suifenhe.

The Power Sector
TREDA has abundant sources of energy in the form of coal and lignite as well as access to
good sites for hydro-electricity generation. It also is strategically located within reasonable
distance of extensive oil and gas deposits outside TREDA. However, although these attributes
indicate that TREDA has a comparative advantage in power generation, realization of these
advantages will require concerted action. The Governments are giving consideration to a
range of issues in this regard including: the efficient transmission of power between new
potential power sources and demand sites; the reduction of pollution associated with the use
of lignite; the negotiation of agreement on cross-border transmission; and the problems
associated with the different operating frequency used in DPRK. Governments recognize that
in order to realize the comparative advantage, they would need to capitalize on economies of
scale and build a few large regional plants, rather than smaller city-based generating plants.
This will also mean that Governments will need to tackle the issue of pricing and to site the
power station(s) in locations that provided energy at the lowest delivered cost.
Scope exists for a number of larger scale hydro-electricity stations in the
Far East of Russia
including: Dalnerechensk (Primorsky Krai); Nizhenimansk of Urgalsk
(Khabarovsk);
Bureisk/Nizhnebureisk and Dagmarskaya/Giluyskaya (Amurskaya). Investigations
into the feasibility of using these stations is warranted along with other options for improvement in
telecommunications services in TREDA are currently limited but the
governments have been investigating the scope for improvements under TRADP. These improvements are
currently
being considered on a country-by-country basis.
In China, all improvements will be based on the existing public network which
is currently being
expanded according to a longer term plan. Local networks are being developed in Hunchun
and a new area is scheduled for development near Wonjon bridge on the DPRK border. A joint venture between Jilin Province and DPRK is establishing a fibre optic connection between Hunchun-Wonjon-Sonbong-Rajin-Chongjin-Pyongyang. A radio link is expected to become operational this year between Hunchun and Zarubino.
In Russia, there are plans to install a new international gateway-switch in Khabarovsk with connections to Niigata in Japan, Moscow, and Harbin-Beijing in 1995.
Agreement has been reached for local networks connecting Vladivostok-Zarubino-Kraskino-Hunchun, however, the timing and financing arrangements are still being determined.
In DPRK, except for the cross-border traffic with Jilin Province, all international telecommunications is to be handled by the Pyongyang international gateway with satellite links to Beijing, Hong Kong and Singapore.
The Telecommunication Masterplan has proposed a unified approach to the development of a regulatory regime as a means to enhance TREDAs’s competitive advantage over other development areas. Governments are broadly supportive of this approach but it will be some time before it could be implemented. The Masterplan has identified a number of measures that need to be addressed to facilitate the rapid improvement in services. These include the financing of improvements and the related question of cost recovery and tariffs. The Governments are investigating these matters and although at this stage they are precluding foreign investment in the public networks, scope may exist for other avenues for investment.
The Water Supply Sector
The total water available in TREDAs is expected to be adequate to meet projected needs but there may be a need to re-distribute the water to meet local needs. Overall, as mentioned elsewhere, TREDAs has no comparative advantage in water supply. The broad strategy proposed in the Conceptual Infrastructure Masterplan is to carry out studies to assess the feasibility of providing water and waste services to meet requirements as soon as these
requirements are defined. It is envisaged that the initial studies will need to be in development areas including the coastal cities in Primorsky Krai. The studies proposed by Russia include: a water reservoir on Tsukanovka River to supply Kraskino and Posiet; a reservoir on Gladkaya River to supply Zarubino; a water intake in Pushinsk subterranean aquifer to supply Vladivostok and Artem; development of the Vtoroluzhskiy hydrosystem to supply towns in the Vladivostok agglomeration; and water from the Olga River to supply the Nakhodka Free Economic Zone.

The Tourism Sector
TREDA and North East Asia have under-developed potential for tourism and the participating Governments have been supporting efforts within their own countries to develop the potential further. However, while much of the development will necessarily be planned and implemented at an individual country level, there is considerable scope for cooperation amongst the participating Governments to generate greater benefits from tourism. These benefits reflect three factors: the opportunity that joint action offers in terms of environmental protection especially with resources that extend over national borders; the greater marketing efficiency that could be obtained through joint promotion; and the increased attractiveness of tourist packages that make use of tourist services, resources and investments in several countries.

One element of the attraction of the region for tourists concerns its environmental values.
Given the fact that the environmental resources of the region are shared amongst the countries and that what happens to the resource in one country affects other countries in the region, Governments have recognized the need for collaboration amongst the countries to ensure that the environmental values of interest to tourists are maintained. Effective marketing is the most important part of the strategy for developing the tourist potential of the region and each country plans to prepare a marketing programme as part of a coordinated regional approach. The initial emphasis would be targeted on the East and Southeast Asian tourists.
Development of tourism will require significant investment in facilities and services throughout the area and Governments have acknowledged that it will prove easier to
attract such investment if it is clear that there is a degree of coordination in planning the expansion of the facilities so that investors are able to generate adequate returns. Similarly, there is a major need for training of staff and there is scope for cooperation in this field. Other Business Services Apart from the sub-sectors considered above, the tertiary or services sector also includes a large range of services aimed at supporting business. This business services sub-sector has not yet been carefully analyzed under TRADP but it is expected to have considerable development potential. TREDA is the natural entry point to a huge hinterland in Eastern Russia, North East China and Mongolia. As a geographical "gateway" to the region it has many of the characteristics of Singapore as a gateway to South East Asia. Potentially TREDA, especially the environs of Vladivostok, could serve a similar role as an agent and a principal for the delivery of tertiary services to this region of North East Asia, in just the same way that Singapore developed initially as a conduit for, and more recently as a principal for the supply of, many tertiary services to South East Asia. The potential for development of trade through TREDA has already received considerable attention and this has focused attention on the needs for investment in the physical infrastructure to handle this trade. However, in addition to the physical infrastructure, the range of services that will be needed is considerable. These include a full range of financial services, not only services connected with regional trade but with the flow of capital from developed North East Asian Countries and other regions into Russia, China, Mongolia and DPRK. These services will include not only currency services but insurance, broking and other financial intermediation services which are now emerging in the region following development of modern banking laws. There is also considerable scope for a wide range of marketing and market information services to be provided both to domestic and foreign firms looking to tap the large new markets of Russia and North East China. There will also be a wide range of tertiary institutes and technology-based industries, based on the educational and research institutions and human resources available in the region. Some
examples might include computer programming and support services, interpretation of satellite images and interpretation of a wide range of geological data.

Governments have recognized that these business services are essential to the rapid growth of the area and have taken the view that the growth of such services should not be restricted by unnecessary licensing or other restrictions. As a result of the demand and the favourable attitudes of Governments, there has been a rapid increase in the number of representative offices being opened in the region. This is one indication of the substantial potential for the development of the tertiary sector if it is allowed to develop competitively.

THE PRIMARY INDUSTRY SECTOR

This sector comprises a number of sub-sectors of which only forestry has been extensively studied under TRADP. The results of the analysis of the Forest Sector are summarized below along with some observations on the other Primary Industry Sub-sectors.

Forestry

The areas of Khabarovsk and north Primorsky Krai which are adjacent to TREDA have a comparative advantage in timber production through access to productive timber growing regions located relatively close to the major growth markets of Japan and China and, to a lesser extent, the ROK and Taiwan. Parts of TREDA itself are also potentially well-suited for timber production through plantations which could be established by re-planting low-grade secondary forests. The availability of skilled, low-cost labour with experience in timber harvesting in Russia’s Far East also provides some comparative advantage although it is likely that future operations will be increasingly mechanized.

The broad strategy that has been proposed for the forest sector is to: secure long term (20 - 50 years) concessions to forests in Primorsky Krai or alternatively, in Khabarovsk; develop a management plan to ensure that resources are used on an ecologically sustainable basis; and to establish a phased industrial programme to establish processing facilities near ports and to export wood chips and sawlogs in the first stage and to export sawn timber and plywood in the second stage.

The TRADP report on “Project Development and Environmental Strategy for the Forest Sector” sets out the projects and an environmental strategy in detail. It indicates
the scope for significant employment prospects and good long term returns provided that the industry is established on the basis of world-best practices including long term environmental and economic sustainability. A companion document "Project Presentation Report" gives detailed information about 19 specific industrial projects that could be set up in TRED A. Significant portions of this document have been incorporated into Report F in this publication.

Fisheries
The offshore fisheries accessed from the TRED A ports are reported to be the most productive in the East Sea (Sea of Japan) and this resource base provides the region with a comparative advantage in fish production. There have been no studies of the fisheries sector under TRADP and no specific strategy has been formulated for the sector. Governments in the region have been advised that some of the past practices may not be sustainable and they have been encouraged to manage the fishery in a manner that allows sustainable harvests in future. Suggestions have been made that there is scope for considerable improvement in the marketing of fish and fish products based on the recognition of quality within the catch. The need for marketing improvements is likely to generate significant investment opportunities for suitably qualified companies: already there are a number of joint ventures being developed with Vietnamese companies amongst others.

Mining
Whilst the mineral resources of TRED A are known to be extensive, the Governments recognize that there is a need to carry out economic assessments of the potential before further development plans can be finalized. Currently Mongolia is exporting copper concentrates from the Erdenet mine in Northern Mongolia, and smaller quantities of uranium from Dornod, as well as producing significant quantities of coal for local power generation. Given the remoteness of Mongolia from world markets, the Government acknowledges that the development of bulk minerals for export is problematical, though it is possible their development for export to regional markets in North China or Siberia could be viable. Eastern Mongolia, however, possesses some significant deposits of higher
value minerals including significant Silver/Lead/Zinc deposits containing reasonable grades of silver, tungsten deposits and some gold (placer) deposits. The development of some of these deposits are potentially more economically promising. Indeed the Japanese are currently carrying out a feasibility study for the development of a high grade silver/lead/zinc deposit at Tsav near an existing rail line which provides a link to the Trans-Siberian railway. This deposit has produced assays of over 250 g/tonne of silver and good grades of lead and zinc. The Government of Mongolia plans to link the major mining developments with the development of rail infrastructure. Both existing rail links (the main north south link through Ulaanbaatar linking the Trans Siberian Railway to China, and the separate link from the Trans-Siberian south to Choybalsan are Russian Gauge. (1524 mm). The Government is investigating the feasibility of establishing new links to the east through NE China. Mining developments in Eastern Mongolia may well provide the justification for providing a rail link from the existing Eren - Choybalsan line to China. This would link Eastern Mongolia TREDA. This may need to be associated with some upgrading of sections of the line in Northern China to provide a cost effective route for mineral exports. There are several alternatives, but the all up cost including necessary upgrading in China is likely to be of the order of half a billion dollars or more. Given the importance of the mineral trade to the development of these links, Government is seeking private sector investors interested in the mineral developments to participate in the rail development. In the awarding of prospecting and development licenses, major mining groups are being encouraged not only to investigate the geological potential but also to carry out feasibility studies on the development of the rail infrastructure in Mongolia and China (or Russia) to allow the economic development of these Mongolian resources. The Governments involved are not only seeking private sector equity in the development of such rail links, they are also considering joint approaches to the multilateral development banks for the provision of official development assistance in association with private sector partners. Planning for development of such links is being coordinated with the development of
mining activities to provide the economic justification for their
development.
Agriculture
The agriculture sector in TREDAs is dominated by the production in China which
is in surplus to
local demand. In NE China the agriculture sector is accorded the highest
priority as an engine
for growth by both the national and regional planning authorities. NE China
accounts for
almost 35% of the nation’s maize production and 42% of its soybean output.
The grain surplus
(maize, rice, other coarse grains and soybeans) is about 19 million tonnes
although it still
needs to import some 3 million tonnes of wheat. This grain surplus is
critically important to the
development of TREDAs transport network because it is expected to provide
part of the base
load for transport improvements. The World Bank is assisting China in
developing improved
grain handling facilities in the region and in the southern ports. In
addition, however, there is
scope for at least one third of the surplus to be shipped out through TREDAs
ports.
Assessments made by others indicate that this grain surplus will be sustained
at least in the
medium term.
At present it would appear that NE China at least has a comparative advantage
in grain
production and, given current investments in grain storage and handling, it
seems likely that
the region will continue to have a comparative advantage in grain exports for
some time. Just
how long will presumably depend on the rate of population growth and whether
the present
levels of production are ecologically and economically sustainable. The World
Bank has
projected that grain exports from NE China will be 40% greater in 2000 than
they were in 1990.
Whether that comparative advantage can be translated into freight volumes for
TREDAs ports
will depend on the comparative costs of exporting grain south through Dalian.
With massive
investments planned to improve efficiencies by converting to bulk handling on the
main
southern line to Dalian, TREDAs ports will need to offer bulk facilities to
attract grain from the
Northeast.
Apart from grain, the NE of China also generates surpluses of vegetables and
fruit that are
mainly traded with Primorsky Krai. Although we have no statistics for
Primorsky Krai or North
Hamgyong Province, we understand that these areas have requirements for food imports.

THE SECONDARY INDUSTRY SECTOR

Resource-Based Heavy Industries

There is already an extensive heavy industry base in TRED A and in adjacent regions. Although the existing industries are generally in need of investment, new technology and a greater market orientation, the base for growth already exists. The heavy industries have an important role to play in providing inputs and producer and intermediate goods for the "infant" light industries. In recognizing this role, Government policies in all TRED A countries are seeking to provide conditions that will encourage the appropriate re-vitalization and re-development of the heavy industry sector. In the past, Governments have imposed price controls on many of the products from heavy industry with the result that resource allocation in this sector and other sectors of the economy were distorted. Governments of all the countries within TRED A are addressing the need to hasten the reform of markets within their domestic economies and each are developing concrete plans and timetables to remove any remaining distortions. Although sales within the domestic markets will continue to account for an important part of output from these heavy industries, much of the future growth will depend on exports. Export markets will include the domestic markets in the economies of the TRED A partners as well as more distant markets in the NEA region. In order to serve these markets the enterprises are seeking foreign joint venturers to inject technology and capital as well as to provide access to (and information about) new markets. There is every indication that the current efforts of Governments to provide the appropriate investment climate in TRED A will attract joint venture partners from industries in Japan, Korea and Taiwan who are feeling the pressures on to relocate to other countries. Labour-Intensive Light Industries

The real strength of the TRED A region lies in its enormous potential for expansion of its labour-intensive light industries. Although the light industry sector is still very limited within the region, it is expanding rapidly, particularly in Yanbian. Experience in other regions of China shows that the availability of low cost labour together with confidence by
outsiders in the investment climate will lead to an explosive growth in this sector in the TREDAl region. The region has an unusually well-trained and skilled labour force for a low wage cost region and this makes it particularly attractive to light industry. Wages in both Yanbian and DPRK are low even by comparison with other industrializing coastal regions of China. Wage rates in Primorsky Krai are higher, but still low given the level of training and skills available. The region also provides considerable industrial support for the basic assembly-oriented light industries. This support will allow the diversification of light industry into more complex, higher-value products far more rapidly than in newly-industrializing regions. These higher value-adding industries would not normally develop in a newly-industrializing area until there was a large agglomeration of light industry. The support comes from two features of the region. Firstly, there is a large work force already experienced in industrial work, unlike many newly-industrializing areas where the work force initially is almost entirely rural. In addition to the fact that the workforce is already experienced, it is also more culturally adapted to industrial development than workforces elsewhere. This cultural adaptation is the result of the high proportion of workers with ties to the Korean culture which reduce concerns of cultural problems when introducing new management techniques along with new production technology. Secondly, some of the associated industries needed by more specialized light industries are already in existence, though in many cases they need modernization. For example the electronics assembly industries is supported by extensive electronics design and chip manufacture capabilities particularly in Primorsky Krai. The textile industry is supported by considerable capability in the production of basic fibres, both cellulose based (rayon, viscose etc.) and man-made (acrylics nylons etc.). Plastics and chemical industries like butyl rubber production can also support more specialized light industries, and extensive experience particularly in ferrous alloy production will allow light engineering manufacturers/assemblers to move into higher quality value-added products more quickly. These somewhat unusual capabilities provide the region with a comparative
advantage over
other new regions because they will enable more rapid horizontal and vertical
integration within
light industry in the region. Governments are tailoring their industrial
development policies to
ensure that such integration is attractive through general support for
improvements in the
business climate but also through specific measures to encourage
modernization of supporting
heavy industries such as steel, chemicals, plastics etc. through joint
ventures or other
technology transfer options.

High-Technology Industries
Whereas the first wave of development in the region will be largely focused
on the labour-
intensive light industries, the second wave will involve the high-technology
industries. Again,
TREDA has particular and unusual features that will enable the region to
develop its high-
technology industries faster than other regions. The region includes parts of
Primorsky Krai
and NE China that have a highly trained workforce and a history of emphasis on education and
research. This provides excellent potential for rapid growth of high-
technology industry.
Governments recognize that such growth will only occur if they are successful in creating an
attractive business climate and they are therefore striving to do this quickly while at the same
time encouraging investment in the existing industries including the former defense industries
of Primorsky Krai.
The extensive high technology base in Primorsky Krai associated with the Russian defense
industry includes significant aeronautical, materials, electronics and machining skills. The
Russian Federation is already reviewing options for the conversion of many of these facilities
to civilian production. To do this they are seeking joint venture partners from countries
including ROK, Japan, Taiwan, US, and others who could introduce capital, civilian goods
technology and market access and combining these inputs with the technological skills in
Primorsky Krai and the light engineering/assembly skills in Yanbian and DPRK. Governments are also planning to identify and subsequently remove any un-
competitive restrictions on technology transfer that may serve to discourage foreign direct investment in
these industries.
RECENT ACHIEVEMENTS

The participating countries have already made substantial progress towards their common goal of development through closer integration of their economies based on mutual co-operation. This section summarizes the recent achievements of Governments and the private sector in setting the basis for co-operation and in initiating the changes needed to provide the foundations for long term growth.

THE STARTING POINT

In 1991, when the participating Governments met at a UNDP-sponsored meeting in Ulaanbaatar to consider the concept of a Tumen River Area Development Program, the economies of the participants were almost completely independent and there were no procedures or venues available to start the process of opening up trade and other exchanges between the countries. In the past, the relationships amongst the participants had been defined by the political environment operating in each country and this environment encouraged an inwards orientation for trade and development. What little trade there was amongst the riparian countries was entirely based on barter arrangements. At that stage ROK traded only with Japan, China traded mainly with Japan and USSR apart from small volumes with DPRK, Mongolia traded only with the USSR, and DPRK traded mainly with USSR but also with China and Japan. The UNDP-sponsored Ulaanbaatar meeting led to a reconnaissance mission in 1991 that recommended development of the area as a centre for global trade to and from North East Asia. It also identified the likely infrastructure requirements for such development over the next 20 years in broad terms. This reconnaissance mission proposed that UNDP sponsor the establishment of a regional commission and carry out a regional development study. Following requests from the participating Governments at a meeting in Pyongyang, UNDP commenced the TRADP and established the Programme Management Committee (PMC) which was the first inter-governmental organization in NE Asia committed to economic and
technical cooperation. Since that time there has been considerable progress both in reaching agreement on the principles of cooperation for mutual benefit and in actual development on the ground. THE MAJOR ACHIEVEMENTS Agreements in Principle As a result of the meetings, discussions and joint planning exercises carried out under TRADP Phase 1, the participating Governments have been able to reach agreements in principle on a number of critical issues that will guide and greatly facilitate the future development of the area. These agreements in principle are outlined briefly below. Complementarity exists There is an under-developed scope in resource complementarity in NE Asia and particularly in TREDA with special opportunities to achieve greater benefits through inter-country cooperation. In essence, each country recognizes and acknowledges that it would be better off by cooperating than by going it alone. Cooperation is to be based on common interests The participating Governments agreed to cooperate to achieve mutual benefits, strengthen economic and technical cooperation and to attain greater sustainable development for the people of the TRA and Northeast Asia. The principles governing cooperation include mutual respect for the sovereignty of each country, equality and good neighbourliness. Institutional arrangements and International Agreements The participating Governments have agreed on the need for appropriate institutional arrangements and are in the process of defining those arrangements through International Agreements. The institutions established would aim to maximize the attractiveness of TREDA to the world investment community and would include professional management. One of the institutions to be established would be a facilitating entity that would, amongst other functions, support investment and trade promotion activities and help to organize the finance and management of major infrastructure projects. The International Agreements would help establish an agency or commission that would help to establish a coherent and facilitating environment for trade development in Northeast Asia. It would provide a venue to reach
agreement on coordination and harmonization of trade policies and infrastructure
development. The participating countries have indicated a desire to consult and coordinate
actions in future on matters concerning telecommunications, transportation, trade and industry,
minerals and natural resources, environment and financing.
Integrating local initiatives
The content and strategies for development in TREDAs will incorporate and integrate the plans
and strategies of the participants so that they will be compatible.
The Role of UNDP
Governments have sought the continued involvement of UNDP as a facilitator to assist and encourage on-going development.
Geographic Definition
The area targeted for development includes the economic development zones that have been established in each riparian country and is to be referred to as the Tumen River Economic Development Area which is broadly defined as the triangle extending from Chongjin in DPRK to Yanji in PRC and to Vostochny in RF. In addition, Governments have agreed that the development will also extend to the hinterland of TREDAs and in particular will impact on eastern Mongolia. Thus, TREDAs is not a strictly defined geographical zone comparable to the free trade zones in East Asia. The intention rather is to foster a variety of economic activities, or “growth poles”, within reasonable reach of the Tumen River valley, through appropriate infrastructure developments and enabling institutional arrangements. The latter would also need to be accompanied by measures ensuring the protection of the physical environment.
The development of TREDAs needs also to be seen in the context of economic pursuits in the wider geographical area of North East Asia.
Progressive harmonization amongst zones
Rules, regulation and management of the zones will initially be national but the Governments plan to progressively move towards harmonization of these arrangements.
Need for infrastructure improvements
Certain key infrastructure development projects need to be commenced prior to the establishment of market demand as a means of improving the attractiveness of the area to investors. This infrastructure may be developed as a national or cooperative multi-lateral initiative.
Opportunities for investment should be maximized. The facilitating entity will ensure that well-prepared and coordinated feasibility studies are made available to potential investors and the Governments plan to provide an attractive “enabling environment” for investors by progressively harmonizing taxes, fees, licensing, pricing policies, currency transactions and by liberalizing trade in services and goods.

Emphasis on environmentally sound and sustainable projects
The facilitating entity will help ensure that all projects are environmentally sound and sustainable by conducting environmental impact assessments for all projects so as to ensure longer term attractiveness for international investors. Environment Management Plans will be integrated into implementation of all TRADP activities. Participants have also agreed to develop recommendations to enable harmonization of key national, bilateral and multilateral environmental laws and agreements.

Development strategy to focus on priority sectors
Light industries, agriculture, services, hydrocarbon, forestry and processing industries should be priorities for short to medium term consideration. Longer term strategy may be to develop heavy industries using environmentally advanced technologies to utilize the rich raw materials and energy resources of NE Asia.

Planning Studies
In addition to the important agreements in principle that have been reached, the first phase of TRADP has laid the groundwork for the development that is expected in the future. Part of this effort has been directed to planning studies that have been carried out in conjunction with the experts in each country. As a result of this joint planning and participation under UNDP’s support, the studies have not only provided a sound basis for detailed feasibility studies in the future, they have helped improve the level of cooperation and understanding amongst the participating Governments, particularly at the operational level. The major studies are listed below.

Programme Document for the Tumen River Area Development Programme (TRADP)
12/91;

Promotion of Industry in Tumen River Economic Development Area (TREDA): Industry Sector Profile, Development Opportunities and Constraints. UNIDO June 1994;
Implementation

The development on the ground in TREDA and its hinterland has been gathering pace over the past three years. This development reflects the growing confidence of the private sector in the region and the strong commitment that has been made by Governments to support development. Some of the most obvious signs of development and growth are reported below.

Development of Economic Zones

Each of the three riparian countries have created special development zones within TREDA and these zones are serving as focal points for development in DPRK and in Yanbian Prefecture. In Primorsky Krai, although it has established a special zone, the planned development extends well beyond the zone.

The Development Zones in DPRK

The focus of DPRK’s development efforts for TREDA is the Rajin-Sonbong “Golden Triangle” Zone which was created in 1991. This area of 786 sq km has been designated as the Rajin-Sonbong Free Economic and Trade Zone (RSFETZ). The nearby port of Chongjin has been
designated as a Free Trade Port. The initial allocation of land (621 sq km) formed a triangle from Rajin port in the south to the mouth of the Tumen River in the north east and upstream on the Tumen to Tumengang district in the north. An additional area of 125 sq km included the land further upstream adjacent to river opposite the Jingxin Plain in China. The Government is developing RSFETZ as an international cargo transit point and an export processing zone while at the same time developing the tourism potential of the area. The RSFETZ now includes 59 factories which DPRK want to see modernized and upgraded via foreign investment. Government completed its Masterplan for RSFETZ in March 1993 and has planned to develop the zone in three phases. The first phase (1993-1995) aims to create a favourable investment climate by enacting all necessary laws and regulations and by upgrading the existing infrastructure including the railways, roads and ports. The second phase to the year 2000 aims to promote investment into export-oriented manufacturing. The third phase to 2010 aims to continue the process so that the zone becomes a centre for international trade, export processing, financial services and tourism. There are nine designated “industrial parks” within the RSFETZ and Government has recently placed priority on two of these. The Development Zones in Yanbian Prefecture in China China has indicated a desire for balanced development and has therefore made efforts to accelerate development of the three provinces in NE China that were lagging behind the strong growth elsewhere in the country. Government designated the city of Hunchun as one of the first Open Border Cities and created the Hunchun Border Economic Cooperation Zone (HBECZ) in 1992. Since that time it has invested heavily to attract investment to the area. Its broad strategy is to commence development by creating an inland port city connected to the East Sea (Sea of Japan) through transport corridors to the ports of Chongjin and Rajin in DPRK and the port of Zarubino in Russia. It also plans to develop a river port at Fanchuan on the Tumen River so as to re-establish the direct access to the East Sea (Sea of Japan) that it enjoyed prior to 1938. The HBECZ comprises an area of 88 sq km adjacent to the city of Hunchun and about 6 km
from the Sino-Russian border crossing at Changlingzi and 14 km from the Sino-DPRK border crossing at Shatouzi. It is 63 km from Zarubino port and 93 km from Rajin port. The initial development has involved a 2.28 sq km area within the HBECZ which includes: a bonded warehouse; factories; administrative building; hospital; school; and some residential buildings. The area is well serviced with roads, power supply, telecommunications, water, drainage and heating supplies. Connections with the railway networks of Russia and DPRK are nearing completion.

The development strategy for the HBECZ involves three broad phases. The first phase, which is already well advanced, calls for the provision of infrastructure, energy and urban planning. The second phase of actual development has also started and aims to make best use of local resources while giving emphasis to export production. It was envisaged that initial emphasis will be on labour-intensive manufacture with progressive movement towards technology-intensive industries. In addition to the industrial development, China plans to promote tourism and agriculture and to accelerate economic cooperation across the borders. The third phase would lead to more high technology industries. The long term vision is that Hunchun would emerge as the central industrial city of Jilin Province.

In addition to the HBECZ, the cities of Longjin and Yanji in Jilin Province, both of which are considerably larger than Hunchun, have substantial plans for development of their areas. These plans include closer linkages with DPRK, the attraction of foreign investment and some important infrastructure developments including expansion of the airport at Yanji. The development plans for these cities are considered to be supportive of the development at HBECZ rather than competitive and it is clear that the Central Government places greatest priority on HBECZ.

Already some 370 joint ventures have been approved with a total value of $400 million of which some 48% is foreign direct investment. Investors from ROK have been most active and have pledged some 43% of the investment to date. More than 77% of the investment is aimed at manufacturing.
The concept of creating a special economic zone such as those of China had been under discussion for many years in the Former Soviet Union but it was only in 1990 that a decision was made to create the first two zones in Kaliningrad and at Nakhodka. The Nakhodka Free Trade Economic Zone (NFTEZ) began operating in August 1991 and has an area of 4,580 sq km and a population of 224,000. It includes the ports of Nakhodka and Vostochny and has so far attracted some 230 enterprises including 110 foreign-owned and 97 joint ventures. The strategy underpinning the NFTEZ is based on the promotion of trade by the opening of an Asia-Pacific gateway. Consequently, the NFTEZ has concentrated its promotion efforts on its transport potential to serve as part of a transport hub and on the exploitation of the resources in its area and hinterland in particular, fish and seafood, timber, minerals and agricultural products. The NFTEZ forms part of the northern section of Russia’s portion of TRED. In addition, there are a number of industrial centres including Vostochny, Ussuriyisk, Vladivostok and the Khasan district of Primorsky Krai. The development plans call for a degree of balance in the development of Primorsky Krai such that it would include development in the NFTEZ, in and around Vladivostok and also in the southern district of Khasanskiy which extends from near Vladivostok to the Tumen River.

Expansion of Trade
Trade in the region has already started to grow strongly as indicated in the figure below that shows exports (X) and imports (I) out of and into Yanbian Prefecture in NE China from its neighbouring countries. The total trade has grown from 129 Million Yuan in 1990 to 1,767 Million Yuan in 1992. Whilst such growth in trade reflects a variety of forces, it is clear that the confidence of investors and business people has been boosted by the clear commitment of participating Governments as evidenced by their involvement in TRADP. There have been numerous positive measures taken by Governments to encourage trade. One example is the opening of Chongjin Port to allow ROK flag carriers. Another is the decision to allow Chinese construction workers to operate in Primorsky Krai under contract arrangements.
There are a number of projects already underway in TREDA that involve cooperation across national borders. In addition, there are numerous projects that are at an advanced stage of planning. These developments have been described in some detail in the UNIDO report (RAS/92/01D) and are only briefly mentioned below.

The most advanced projects are those involving rail and road linkages between China and Russia and China and DPRK. The China Northeast Asia Railway and Port Group Co. Limited is a private sector joint venture company that has developed plans for extensive rail and road developments in TREDA. Work is already well advanced on a railroad linking Hunchun in Jilin Province in China to Kraskino in Primorsky Krai in Russia. This will then provide a direct connection from the Russian port of Zarubino to the Chinese city of Hunchun. The company is at an advanced stage in reaching agreements with DPRK to link the rail system in Jilin Province to the system in North Hamgyong Province at Xinyong. This latter link will provide a direct connection from the DPRK port of Rajin to the Chinese city of Hunchun. The company also has longer term plans to link the rail system in NE China with the system in Eastern Mongolia. The development plans of this company include work on expanding and modernizing port facilities in both Russia and DPRK.

Road links between China and DPRK are already being improved. Linkages from Yanji to Longjin have been completed and connection to Sanhé (DPRK) is underway. On the DPRK side, work is well advanced on a toll road to link Sanhé to Chongjin via Haeryong. This road is being funded by the Yanbian Gonggyo Trading Company. A dual highway road link from Hunchun to the Russian border at Chenglingze has already been completed and work is proceeding on the Russian side to connect with Zarubino.

Port facilities are being improved in both Primorsky Krai and DPRK with the result that port capacity is adequate to handle foreseeable cargoes for some years. Border crossing facilities are being rapidly improved both in terms of physical facilities and services. A new facility has been established at Chenglingze and some existing facilities will soon be re-opened on the China-DPRK border.
Specific Commercial Developments
There have been growing numbers of commercial joint ventures between parties across the
national borders. The Russian company Dalco has established several
operations in DPRK
and is involved in the upgrading of the Rajin port. At least four Sino-
Russian joint ventures
have been established in Primorsky Krai and there are numerous joint ventures
between ROK
firms and Chinese, Russian and DPRK enterprises. Although the trade is still small, there are
numerous tourist operators seeking to establish joint ventures in the region. These and many
other ventures are detailed in the UNIDO report.

HOW TREDAA PLANS TO COMPETE

The participating countries or regions that comprise TREDAA and its hinterland have extensive resources
and their Governments have developed sectoral
strategies that seek to make best use of those resources. However, in addition to the sectoral
strategies that are needed, each country or region has sought to define the broader economy-wide strategies
that are needed to accelerate development by
attracting investment and facilitating trade. In the
process of preparing these individual country strategies, they have recognized a high level of mutual
dependence. Many of the development objectives of individual regions within the area are mutually
beneficial but require co-operation to succeed. Many of the attractions of the area to outside investors are
reliant on a high degree of integration and co-
operation amongst the participating regions. In
summary, two points have become clear:
The ability of this area to compete with other potential development areas depends very much on the
willingness of its Governments to co-operate to create a competitive edge.
The mutual benefits that will come from co-operation both bi-laterally and multi-laterally will be large.
This recognition has shifted the focus from efforts to develop each part of the region separately to efforts to
develop it as a whole. As a consequence, Governments have sought to identify the broad strategies that will be
appropriate for this task.
This section summarizes the broad strategic thrusts that Governments have decided to take to enable
TREDAA to compete successfully with other development zones.
Growth Projections for TREDA

INTRODUCTION
TREDA has the potential to compete successfully with other trade development zones and to capture a significant share of the foreign investment and industrial development and trade that will follow. This potential arises as a result of several factors: the region’s resource base; the sectoral strengths of the sub-regions comprising TREDA and those of Mongolia; and the complementary capital and technology available from ROK and other countries including Japan.

In order to realize that potential, Governments have recognized the need to take various measures. Some of these measures are internal and are needed to improve the climate for investment and for trade and industry development within each country. They will include measures to ensure that development is ecologically and economically sustainable. Other measures are external and are needed to enable the countries to cooperate more effectively to facilitate trade and to protect their common environmental resources. All of the measures have been carefully analyzed and have received high level endorsement and support. As will be discussed later in this report, implementation arrangements for these measures will vary in scope and timing amongst the participating Governments but the broad basis for agreement has been reached.

This section outlines the broad measures discussed by Governments and indicates why Governments have decided they are necessary. It also reveals the need to establish new multi-national institutions so that these cooperative measures can be agreed and implemented.

The four key measures that the participating Governments have decided are needed to establish a sustainable competitive position for TREDA and Mongolia are outlined below. Taken together, these measures form the basis of the development strategy that will make it possible to exploit the comparative advantage that the region offers.

The Broad Strategy
1. Create an "Enabling" Environment
2. Improve the Services Available in the Region
3. Facilitate Expansion of Trade
4. Attract Investment and new Technology and Improve Access to Markets

The Governments believe that exploitation of combined comparative advantage of the region will be the major force driving growth and development in TREDA and in the whole NE Asia region. The opportunity arises because in the past the economies in the region (DPRK, Japan, Mongolia, PRC, ROK and Russia) have been poorly integrated with the result that there has been insufficient or inappropriate specialization of economic activity. This has been particularly marked in the sub-regions within TREDA and in Mongolia. Business growth in all sub-regions has been restricted by the limited access to the desired balance of capital, labour, production inputs and markets within that sub-region. The Governments have decided that businesses would grow faster, trade would expand and the welfare of the people would improve if steps were taken to widen access to these factors of production and markets beyond the sub-region to include the whole of the North East Asia region.

Governments have agreed that the key to tapping the potential for exploitation of comparative advantage is to reduce the restrictions on trade amongst partners within the region. They recognize that it will not be possible to remove the restrictions altogether because many of them reflect national policies and cannot be removed just in one region.

Similarly, they agree that while it would be desirable if all countries could agree to act quickly and uniformly, in practice it is neither likely nor necessary that the restrictions be removed immediately or even simultaneously in all sub-regions.

The four measures or steps that comprise the broad development strategy are discussed below. These measures require action to be taken by the participating Governments and by the private sector to exploit the combined comparative advantage and to turn it into a competitive advantage for the participating countries in the region. The Governments plan that they should be carried out concurrently.

THE BROAD STRATEGY
First Step: Create an Enabling Environment
Governments in the region are in the process of creating an environment or business climate that enables industry to develop, businesses to prosper and trade to expand. This environment will also be one that encourages investment from both the private and public sector. Governments have also indicated that the environment they want to create will lead to improvement in the welfare of the population in the region and will not lead to loss of environmental values. There are three groups of measures that Governments are taking or plan to take to create the enabling environment: They are starting to put in place the new regional institutions needed to implement development; they are continuing to put in place the trade and other policies needed to guide the development; and they are progressively reaching agreement on the changes needed to their own national or local regulations to remove restrictions on development. Although it is clear that improved services are also a part of the enabling environment needed to conduct business and to improve welfare, we have treated it as a separate measure to make it clear that the provision of such services will not be solely the responsibility of government. The three areas that are the sole responsibility of Governments are outlined below.

Institutions
In order to carry out the functions needed to exploit the comparative advantage of the region, Governments have agreed that they will need to establish new institutions and to modify the functions of existing institutions. The nature of the new institutions and the changes needed to existing institutions have been extensively discussed under TRADP and the draft agreements for the international institutions have now been developed to the point that they are ready for implementation after final high level approval by participating Governments. Now that these international institutions are in virtually in place, it is expected that there will be rapid and substantive progress made with cooperative multi-lateral measures.

Trade Policy
The participating Governments have been examining their own country’s trade policy to identify how they can best support the expansion of trade in the TREDAN.
Asia region. It now seems likely that all participating countries will align their trade policy with the GATT rules which will mean that all parties will have compatible rules that will boost trade quickly and sustainable. It is expected that further discussions amongst the countries on a bi-lateral basis will clarify the implications of the national trade policy at the regional level and deal with the important issues of border trade and the practicalities of streamlining transactions across the borders. Governments are in the process of establishing the appropriate sub-committees to accelerate these discussions and to sort out implementation details. UNDP has indicated that Phase 2 of TRADP will assist the Governments to reach agreement and implement these critical policies.

Regulations
Having established the appropriate policies, Governments have agreed to meet to identify those regulations that are discouraging trade and investment at present. Subsequently, they plan to negotiate changes in those regulations taking into account the varied concerns of all parties as well as their common commitment to expanded trade and investment. Regulations to control trade will be dealt with as part of the changes in trade policy. Regulations to control the specification of goods used in trading contracts will be jointly discussed with the objective of moving towards common standards for traded goods and services. Regulations to control transport, including matters such as maximum axle loads and licensing arrangements, will be the subject of discussions amongst local authorities in neighbouring sub-regions. Through practical cooperative measures in these areas, Governments are confident that they will be able to put in place a much improved business and trading environment.

Governments have agreed on the need to collaborate in reviewing the regulations needed to implement national and regional environmental policies. Owing to the close proximity of the sub-regions and the fact that activities in one region can have an impact on neighbouring sub-regions, it was recognized as important that a mechanism was developed for discussing environmental regulations and moving towards a degree of harmonization. In order to avoid situations where industry may be attracted to regions with lax environmental
controls only to
cause pollution in other areas, Governments are consulting to agree on
procedures to limit and
control pollution. More generally, Governments are meeting to agree on
measures to protect
their common environment—most of these measures will be internal but some
will require
inter-governmental cooperation.
Second Step: Improve Services
With assistance from UNDP under the TRADP, Governments have been planning how to
improve the full range of services needed by business. By improving these services,
Governments expect to attract investment and new industries and ultimately
this will lead to
improved welfare of the people in the region. Clearly all the services cannot
be improved
simultaneously throughout the region but they are being improved
progressively and cost-
effectively by ensuring that the improvements are in response to anticipated
demand. The
basis for setting priorities for service improvement has been set out in the
various sector
studies on Infrastructure, Telecommunications, Power and Water Supply.
Governments are seeking outside investment to supplement their own budgetary
allocations to
improve services. In order to attract private investment or Official
Development Assistance
(ODA), Governments are collaborating to demonstrate that the investments are
technically,
socially, environmentally, financially and economically sound. Under Phase 2
of TRADP, it is
envisaged that further studies will be carried out as needed to demonstrate
the feasibility of
the projects and to meet the particular requirements of the lending or
investment agency.
In those projects involving more than one country and where public investment is
contemplated, or where there is to be a mix of public and private investment,
Governments are
working to reach agreement on priorities in advance rather than competing
with each other.
They have agreed to joint participation in feasibility studies of specific
proposals or projects as
a means to determine priorities and to clarify their respective roles. This
provides all parties
with an understanding of the needs of the investors and it will also indicate
that some
rationalization will be needed to make sure that the returns on investment
are reasonable and
competitive with what investors would expect to receive elsewhere.
Business Service Centres
The strategy that Governments plan to implement to provide business people with the "soft" or supporting services they need to conduct business is to encourage these services to be provided in a number of centres associated with the development. Services such as banking, hotels, restaurants, secretarial and translation agencies, printing, business equipment servicing etc. will expand in response to anticipated demand. This is expected to lead to the development of a number of growth centres within the region. However, although it is envisaged that growth will be distributed around a number of existing growth centres or poles, the longer term spatial planning of the Governments is leaving scope for the development of new growth centres within TREDAl (an International City perhaps) should the demand arise in the future.

Third Step: Facilitate Trade
The participating Governments believe that although both of the two preceding steps will help build trade, there are some specific measures that need to be taken to boost trade more rapidly. Even though ultimately trade depends on business decisions based on mutual advantage, Governments recognize that they can assist expansion of trade in a number of ways as indicated in the UNIDO report "(TREDAl Industry Sector Profile, Development Opportunities and Constraints". Governments are discussing three main measures as outlined below and plan to establish a Trade Facilitation Group as part of the inter-governmental institutional arrangements to advance these issues.

Streamline Customs and Visa Issue
Governments have indicated an intention to respond to the issues raised in the UNIDO report and at the RDS Workshop in Beijing concerning customs and visa issue. Border crossing procedures will be progressively simplified so that it is easier and less expensive to trade within the region. Efforts will be made to negotiate arrangements that will permit people and goods to transit to and from China and Mongolia through DPRK and Primorsky Krai with less difficulties and cost. Governments plan to identify the changes that are needed and to start with the simple measures such as standardization of custom forms and then to progress to more
complex measures such as the development of joint customs facilities and procedures. Governments will also review visa issue procedures aiming to simplify and accelerate the process so that genuine business people need not be delayed or discouraged from travelling within the region. They have agreed that while it is not necessary that all countries have the same procedures; all countries will strive to make it easier to travel in the region. In order to implement such changes Governments are planning to establish a Working Group to review customs and visa issue procedures and to recommend changes in Government policies as needed.

Encourage Exchange of Information
Governments are planning to encourage the exchange of information in a variety of ways. They recognize that trade amongst the sub-regions would be greater if there were greater knowledge of the resources and markets available in neighbouring sub-regions. Interchange of information will assist this process and would be further facilitated by reduced controls on visa issue. Formal exchange programmes with universities, business organizations and local government agencies are also under consideration since it is clear that there will be mutual benefits if business people become better informed on the laws and regulations that govern business in adjacent sub-regions. UNDP plans to assist this process as part of TRADP Phase 2.

Rationalize Pricing and Incentives
In most of the countries in the region there is still a number of goods and services whose prices are determined by government actions. Trade between the sub-regions and with international markets has been distorted in the past as a result and Governments acknowledge that such trade will not be sustained if it is not based on real (market-determined) prices for goods and services. Governments are therefore progressively examining the existing price controls, quotas, and import or export restrictions with the intention to remove such distortions as quickly as is practical. Barter trade is already being phased out in all countries and will be terminated as soon as is practical. In line with experience elsewhere in East Asia in particular, in those situations where
Governments choose to give incentives to particular industries or to exporters, they will consider making them "contestable". They will also closely monitor their impact monitored so that only the most efficient receive the incentives. While recognizing that these are internal matters with little scope for cooperation, the participating Governments will investigate whether it may be useful to have a forum to discuss such issues. Such a forum would mean that each country can be aware of possible changes in the pricing arrangements for goods and services in neighbouring sub-regions. A good example of this relates to charges for transport—these are of major significance in determining the feasibility of transport improvements that rely on freight from neighbouring sub-regions.

Step Four: Attract Investment and New Technology and Improve Market Access

Although the region has a comparative advantage as a result of its location, its resources and its complementarities, it requires access to outside capital, technology and wider markets to turn this into a competitive advantage. The participating Governments plan to cooperate to improve access to such capital as indicated below.

Building Investor Confidence and Reducing Risks

Governments are already helping build the confidence of investors by providing tangible evidence of their own commitment and confidence in further growth in the region. One element of such efforts is the declared intention of Governments to make a joint commitment to the International Agreements that have been proposed as a basis for implementation of the TRADP. Those agreements will enable the establishment of an agency whose functions will include investment promotion.

Another element is the willingness of Governments to commit funds to providing part of the infrastructure and support services. All Governments have indicated their preparedness to guarantee finance for a significant part of the priority investments. Governments are also building investor confidence through their active participation in the examination of the feasibility of joint projects and through their agreement on the roles and responsibilities of all parties. Beyond these Government initiatives, however, it is recognized that the most persuasive argument from an investor’s perspective will be the proven performance of similar development
initiatives in the region. For this reason alone, the Governments have started to closely monitor the development efforts of private groups and are assisting in whatever ways possible to accelerate progress and to resolve problems, particularly in the early stages. UNDP will continue to assist this effort under Phase 2 of TRADP. Whereas the measures above are aimed directly at the investor’s confidence and his or her perception of risk, there are various measures that Governments plan to take to actually reduce the risks to outside investors. One measure might be that the Investment Promotion Agency (in whatever form it takes under the International Agreement) might seek to persuade countries within the region to provide some sort of insurance fund to protect the investments of its own (private sector) nationals against political risk. It would be particularly helpful if Governments such as those of ROK and Japan were willing to provide such protection to its own companies investing in the region. Again the Phase 2 of TRADP will help Governments investigate the need for and feasibility of such measures.

Investment promotion
Governments are taking steps to make it easier for investors to invest in TREDA. One of the proposed measures will create TREDA Investment Promotion Centre (TIPC) which is planned to comprise branches in Rajin, Hunchun and Vladivostok and local offices in Chongjin, Yanji and Nakhodka or Zarubino. The TIPC will be assisted under Phase 2 of TRADP and will streamline the process that investors need to go through to make investments in TREDA. It will operate as a “one-stop shop” providing information on business opportunities and investment regulations while also handling all aspects of the investment application and approval process. The TIPC offices will provide facilities for potential investors including translation and interpreters, facilities for meetings and seminars and will help arrange trade missions. In addition, the TIPC will handle all investment promotion activities including regional advertising, publication of investment guides and videos and trade missions. Under Phase 2 of TRADP, the participating Governments will be assisted in making full use of the various forms of assistance for investment promotion available from the relevant UN agencies. In particular, Governments will be assisted in accessing the UNIDO
support which includes: investment monitoring; preparation of Industrial Development Reviews; identification and preparation of investment projects; institutional support for investment promotion activities; support for Investment Forums; and follow-up support to help finalize business negotiations. In addition, if considered appropriate by the participating Governments and provided suitable sources of funding are available, the second phase of TRADP will help in the conduct of detailed investment opportunity and feasibility studies for high priority projects.

Facilitate Financing Arrangements
Development will require large amounts of capital: even with modest growth investment requirements are likely to exceed US$5 billion in the period to 2000 and perhaps US$30 to 40 billion in the period 2000 to 2010. At least half of that investment is expected to come from the private sector and Governments have therefore set out to attract such finance by establishing a favourable climate for business as discussed previously. Governments have agreed to fund part of the balance from within their own budget and they are identifying their own priorities so that they can allocate their own resources to these projects. However, beyond those contributions, Governments are also assisting in attracting other sources of finance in two other ways.
First, they are helping attract Official Development Assistance (ODA). This will come in various forms: as direct bi-lateral grants from other donors: as soft loans from agencies such as the World Bank and the Asian Development Bank; and as equity or commercial loans from the International Finance Corporation (IFC) and the private sector “window” of ADB. The key to accessing such funds will be the preparation of comprehensive feasibility studies that meet the lender’s requirements. Most ODA will only be provided on a bi-lateral basis and will therefore only be accessible to those countries that have operating arrangements with the agencies providing the finance. In addition, it will generally only be available for expenditures within the country borrowing the funds. Second, Governments are assisting by establishing the necessary implementing agencies as part of the International Agreements for the implementation of TRADP.
(Governments have not yet determined the form of these agencies but are considering options ranging from a Secretariat to a Development Corporation). The agencies will investigate the scope for linking ODA so as to support investment in projects extending across national boundaries. It will also need to seek funding from the major international commercial banks and sources of venture capital. It is likely that these financial institutions will need to see some progress with other projects before making any investments themselves. It is also possible that the agency could help mobilize domestic savings into investments in the region.

THE COOPERATIVE ARRANGEMENTS

The previous section set out the broad strategy that Governments have determined is most appropriate for their future development. This strategy implies a level of co-operation amongst the countries and sub-regions in order to improve the competitive position of TREDAR and its hinterland. This section examines the main options for cooperation that are available to the participating Governments in the North East Asia region generally and in TREDAR specifically. It concludes that the participating Governments would each be better off if a relationship were established amongst them that allows them to co-operate on both a bi-lateral and a multi-lateral basis according to the specific task or objective being pursued. This relationship would still leave scope for individual efforts to develop industry and trade where no benefits could come from co-operation.

INTRODUCTION

The Governments of DPRK, Mongolia, PRC, Russia and ROK have agreed that inter-regional competitive development would severely limit growth in all countries and would mean that all countries lose. It would lead to duplication of infrastructure, inefficient allocation of resources and it would mean foregoing the benefits from the very significant resource complementarities that exist in the region. Governments have therefore decided that it is not an option worth considering.
However, Governments have considered a range of strategic options for inter-regional cooperative development and these are outlined below.

Strategic Options for Inter-Regional Cooperative Development

The participating Governments have made a commitment to inter-regional cooperation in North East Asia and in TREDAN in particular. It was this commitment that brought them together for the TRADP. In determining how they can cooperate most effectively, Governments have considered three strategic options. The first is the geographical basis for cooperation—what will constitute the boundaries of the region where cooperation is to take place? The second is a management question—what forms of cooperation are desired, what agency will oversee this cooperation and how will the cooperative measures be implemented? The third is a political question—what agreement amongst Governments is needed to create this region and allow it to function?

These three questions are discussed below.

What is the Geographical Basis for Cooperation?

Common Market

The most radical option would have been to create a common single market in which goods, people and services could move freely. Given the relatively small size of the sub-regions in relation to the economies they operated under, this idea could never be contemplated as a practical option since it required the entire country to become part of the common market.

Free Trade Area or Single Special Economic Zone

In the early stages of planning consideration was given to creation of a single economic or free trade zone referred to as the Tumen River Economic Zone or TREZ. This zone was to have comprised land leased from the three riparian countries and was to have been managed by an independent business corporation. The TREZ concept raised a large number of practical problems and it was clear that it would delay development if these had to be solved before implementation could start. The participating Governments through the Project Management Committee (PMC) consequently decided to postpone further consideration of the concept while not ruling it out as a future possibility.

Tumen River Economic Development Area (TREDAN) with Mongolia and ROK

With the postponement of any further consideration of the TREZ concept, attention has shifted...
to TREDA. It has been identified as the triangle of land contained between the cities of Chongjin in DPRK, Yanji in China and Nakhodka/Vostochny in Russia. It can be defined as comprising: the North Hamgyong Province of DPRK, the Yanbian Autonomous Korean Prefecture of Jilin Province in NE China and the southern and central part of Primorsky Krai in Russia. So defined, TREDA occupies some 75,000 sq km and supports a population of 3.5 million people. Each of the three riparian countries have created special development zones within TREDA and these zones are envisaged as growth poles or focal points for development. Although Mongolia is not riparian to the Tumen River and thus lies outside TREDA, the concept that has been advanced in developing the Regional Development Strategy is that Eastern Mongolia would form a fourth development growth pole within NE Asia. Similarly, although ROK is not riparian to the Tumen River and thus lies outside TREDA, the concept is that it would form the fifth development growth pole in NE Asia. This concept of the geographical basis for development underlies the Regional Development Strategy and has been accepted as the preferred basis by the participating Governments. How Participants Plan to Cooperate? The participating Governments have decided that they favour the idea of moving progressively towards greater uniformity or harmonization of their business climates whilst recognizing each country’s right to do things a little differently—a policy of "progressive harmonization with mutual recognition". This option, in contrast to a more rapid form of harmonization, means that the number of issues that need immediate attention on a multilateral or bilateral basis will not be as great. The multilateral issues are at the heart of the whole concept for development of the region. Governments have agreed to put mechanisms in place to resolve any such issues so that the goal of accelerated development for the region can be achieved. Foremost amongst these issues that Governments plan to address through multi-lateral and bi-lateral action are the following:

- Streamlining of customs and visa issue;
- Enabling bonded transit trade;
- Rationalizing transport services and infrastructure;
- Recognizing environmental inter-dependence;
Eliminating barter trade;
Providing joint or cross guarantees for joint projects;
Providing joint Governmental investment in multi-national projects;
Supporting joint efforts to promote the region;
Supporting joint efforts to attract ODA, private sector and other forms of investment.
The institutional arrangements that are needed to deal with these issues are now being finalized by the participating Governments and UNDP. It is envisaged that there may need to be a Commission comprising all participating Governments and a Committee consisting of representatives of the riparian countries.
The Governments have agreed that the form of cooperation that is required and appropriate will vary according to the particular purpose to be served. None of the Governments want to see a situation where they are all obliged to sit down together to discuss every issue of development in the region. However, all of the Governments want access to a venue or procedure that will allow each to discuss issues that have implications for other participants. Hence it is clear that there will be a range of issues that will be dealt with on a bilateral basis and others that will be dealt with on a multi-lateral basis. The bilateral issues will be self-identifying and need not be elaborated here. Mechanisms already exist for dealing with these issues although they could be improved in various ways.

IMPLEMENTATION ARRANGEMENTS- GOVERNMENTS’ PREFERRED APPROACH

Having identified the potential benefits from joint efforts to develop the region, the Governments have shifted their attention to the means of implementing the development strategy. They have considered a number of alternative approaches and this section describes their chosen approach to implement the development strategy.

INTRODUCTION
The Governments participating in TRADP considered three alternative approaches to cooperative development of TREDAla and its hinterland. The first was a so-called Masterplan approach which relied heavily on joint decisions by Governments concerning
how the region should develop. Its weakness was that it was not demand-driven and it would not be attractive
to outside investors. The second was a so-called Rapid Harmonization approach which
concentrated attention solely on establishing an attractive and uniform investment climate
throughout the region and then relied entirely on the market to determine what investments
were warranted. Its weakness was that it would be difficult to implement because it required all
Governments to simultaneously agree to identical conditions for investors, businesses and the workforce. The third approach was a so-called Progressive Harmonization approach which included the best aspects of the first two approaches. It is this approach that is preferred by Governments and it is outlined below.
THE PROGRESSIVE HARMONIZATION APPROACH
General Principles
The approach that the Governments prefer is a hybrid which builds on the best aspects of the two main alternatives: it focuses on getting the business environment right to encourage trade and investment but it also provides for a degree of planning and control when it comes to infrastructure development.
In relation to trade and investment, the approach recognizes both the longer term benefits of harmonization of the investment climate as well as the implementation difficulties of achieving harmonization quickly. It aims to move towards a "harmonized" business environment throughout the region at a pace that is acceptable to all Governments but it accepts that some countries or sub-regions will "harmonize" more rapidly than others. Hence, while it will lead to "balanced" development over time, in the short run it accepts that development and resource allocation will reflect both comparative advantage and the attractiveness of the business climate in any one location.
In relation to infrastructure development, the approach would provide an indicative plan coupled with procedures to encourage joint planning and joint financing of shared infrastructure.
Requirements for Successful Implementation
Under a progressive harmonization approach, the requirements would be flexible. In the trade and investment area, Governments plan to develop a basic statement of intent
and a broad timetable for major reforms, however, it would not be unreasonable for this timetable to extend up to 10 years for some of the more far-reaching or contentious changes to the investment and business climate. The Governments recognize that progressive harmonization of the business climate will require on-going consultation and review of policies for development, environment protection, trade, industry and investment. They plan to carefully monitor and actively encourage this process since they recognize that without a single plan or a comprehensive near-term timetable, there is a risk that progress will be slow. Governments plan to establish an institution operating as part of or under the Commission and/or the Committee with the mandate to negotiate the harmonization process and to monitor its implementation.

In the case of infrastructure development, Governments have agreed that the indicative or conceptual masterplans that were prepared under Phase 1 of TRADP would serve as the basis or starting point for development planning but they are to be progressively refined and the timeframe for the plan will be progressively extended. In the early years, the plan will deal only with immediate issues—projects already nearing implementation and policies that are needed to guide future planning. Subsequently, the planning would move on to medium- and longer-term regional issues. Another critical feature of the approach to infrastructure planning is that it should be based on joint participation in planning studies by all involved.

Advantages
The major advantage of this approach is that it can be quickly initiated and its implementation would not require difficult negotiations nor high costs. It would be based on the principle of "mutual recognition" that has guided much of the development of the European Common Market. By avoiding setting of absolute priorities and by concentrating on doing the easier things first, this approach would minimize political difficulties and provide early benefits. Since it will be based on practical outcomes, it is expected to receive support from business as well as diverting attention away from the political consequences of change. Over time it will enable
greater exploitation of comparative advantages and greater integration of economies than continuation of the present competitive situation. This will mean that actual improvements in welfare, trade and investment will be quickly realized.

INDICATIVE BENEFITS

The participating Governments expect that development of the region will provide direct and indirect benefits which will lead to improved welfare of the people. The direct benefits will take the form of expanded employment opportunities and increased productivity and earnings. The indirect benefits will flow from the improved services that will become available both to business operators and private citizens. The magnitude of the benefits will depend on the speed with which Governments are able to act to establish an attractive investment and business climate since this in turn will determine the likely rate of investment in the region. It is expected that investment in the region will total at least US $34 billion over the period to 2010 and that the Gross Regional Domestic Product would grow at a rate of 8 to 16% per year. This would mean that per capita GDP would increase almost threefold over the period.

THE BENEFITS EXPECTED
The benefits that are expected to flow from the development of TREDA and its hinterland will take many forms but all will lead to an improvement in the welfare of the people in the region as well as an improvement in the competitiveness of the region. It is expected that the foreign direct investment into the region will increase dramatically generating new jobs and increasing outputs. The infrastructure throughout TREDA and its hinterland will be progressively improved providing benefits not only to the businesses that will use them but also to the general population in the area. The improvements in road, rail and port facilities will mean better transport services and lower transport costs for business users but the public at large will also benefit from the improved services. The expansion of the telecommunications network and the
introduction of new services will vastly improve the ability of people in the region to communicate with each other and with those outside the region. Preliminary estimates suggest that the combined regional economies might grow at around 8% per year up to 2000 and 16% annually for the period 2000 - 2010 even with relatively modest growth assumptions. With an investment capital to incremental output ratio of 2.5, this would generate an investment requirement of at least $6 billion in the period to 2000 and a further $28 billion in the decade to 2010. With these growth performances it could be expected that the average per capita incomes in TREDA could almost triple from around $1,300 at present to $3,600 by 2010. It is possible that the region could grow much faster than this if Governments were able to quickly bring about the improvements in investment climate and attract investment for infrastructure and industry. Growth rates as high as 20% per year could be achieved if it were possible to attract around $17 billion in total investment by the year 2000. Assuming a more conservative investment capital to output ratio of 3, such investment levels could lead to a doubling of GDP per capita by the year 2000.

It is clear that the level of growth will be largely dependent on the investment that can be attracted to the region from both the public sector and the private sector. Governments have already agreed to the principle of joint investment in the major infrastructure projects and will provide clear indications of budgetary allocations as soon as final Governmental approval is given to the institutional arrangements for on-going support of TRADP. In addition to this financial benefit, there are other benefits that are expected such as improvements in welfare and conservation of environmental attributes of the region. These benefits are obviously of extreme importance but they are very difficult to assess and almost impossible to quantify.

The Growth Projections for TREDA shown below represent conservative estimates of likely performance.

TABLES 1 & 2
This section is presented as a summary of the report and includes a re-statement of the specific action planned by the participating Governments.

THE DEVELOPMENT OPPORTUNITY
The Tumen River Economic Development Area (TREDA) and its hinterland in North East Asia has an enormous development potential. This potential reflects the region’s strong resource base and its favourable geographical position providing the opportunity to link the region’s productive capacity to growing markets through a new gateway to the Pacific Rim. In the past, development was limited by the political, economic and physical barriers that separated the countries and the people of the region. This is now changing rapidly. The Governments have already commenced the process of removing those barriers and development is gathering pace. By collaborating in TRADP they have created an opportunity to accelerate the development process by working cooperatively to continue to remove the barriers and to make full use of the region’s resource potential.

THE CHOSEN DEVELOPMENT STRATEGY
The five Governments participating in TRADP have agreed that development in TREDA and NE Asia should be based on an economically and ecologically sustainable exploitation of the combined comparative advantages of the region. This will lead to much closer integration of the economies in the region and will generate economic and social benefits through specialization and economies of scale. It will also enable additional benefits to be gained in the region through the capture of transit trade and through joint action to protect the environment. The Governments have agreed on a broad strategy to achieve this development as indicated in the box below.

The strategy is to collaborate and co-operate both bilaterally and multi-laterally to create a social and business climate throughout the region that encourages economically and environmentally sustainable development and facilitates trade as a means to improving the welfare of the people in the region.
To implement this strategy Governments have agreed to continue efforts to remove the remaining barriers to trade and to reduce the risks perceived by potential investors. They are encouraging their local administrators to cooperate with counterparts across national borders to formulate plans that enable sustainable management of the joint resources of the region.

THE AGREED APPROACH TO IMPLEMENTATION

The Governments have decided to create a favourable business and social climate in the region through a process of "progressive harmonization" of the business and social climate coupled with strategic (demand-driven) improvements to the infrastructure servicing the region.

The progressive harmonization aspect of this approach recognizes that whilst all Governments are equally committed to the same goal, they may vary in the way and the pace they wish to achieve it. For some Governments the policy changes needed are already underway, for others they are just starting.

The strategic (demand-driven) approach to infrastructure improvement recognizes the fact that transport services need to be improved progressively since Governments will need outside investment and that can only be attracted on the basis of the return that each investment can provide. The Governments plan to make significant improvements simply by making better use of the existing infrastructure and removing critical bottlenecks. Such improvements will provide a low-cost means to reduce the immediate transport constraints. Subsequently, Governments plan to implement new projects to improve services as the demand for them increases.

The Governments’ agreed approach has two elements: trade and investment facilitation and infrastructure development. In relation to trade and investment, the approach recognizes the longer term benefits of harmonization as well as the implementation difficulties of achieving harmonization quickly. It aims to move towards a "harmonized" business environment throughout the region at a pace that is acceptable to all Governments but which recognizes that some will “harmonize” more rapidly than others. Hence, while it will lead to "balanced" development over time, in the short run Governments should accept that development and resource allocation will reflect both comparative advantage and the
attractiveness of the business climate in any one location. 
In relation to infrastructure development, the Governments are developing and reaching agreement on indicative plans coupled with procedures that encourage joint planning and joint financing of the shared infrastructure. The following two sections provide an outline of the undertakings the Governments have made to implement this broad strategy and to support sectoral development.

**THE ACTION PLAN TO IMPLEMENT THE BROAD STRATEGY**

Governments plan to implement the broad strategy by taking action to:

- Create the desired "enabling" business and social climate or environment;
- Improve the services available to businesses and to the people;
- Facilitate the expansion of trade;
- Attract new investment and technology and improve access to markets.

The proposed action is outlined below.

**Creating the Enabling Environment**

**Government Commitment and Institutional Arrangements**

The Governments are committed to a common and sound development strategy as indicated by their actions in:

- Agreeing to the strategy, the goal and to the vision for development and by designating appropriate authority, responsibilities and budget to agencies to commence implementation;
- Reviewing the proposed International Agreements on the Commission and Committee, agreeing on how they will function and be financed and by approving their establishment;
- Making a commitment to provide financial support for the phased establishment of an implementing executive agency;
- Designating appropriate people to continue to develop policy recommendations and action plans for: Regional Development Strategy; Trade, Industry and Investment; Environmental Planning; Infrastructure Planning; Telecommunications Planning; and Tourism.

The Governments will be provided with some technical and/or financial assistance from external agencies to assist them implement action on the last two items.

**Environmental Planning**

The Governments have a clear, common policy concerning environmental management in the region and intend to negotiate with each other to ensure that development does not adversely affect the environment and is environmentally sustainable. This is evident from Governments
action in:
Reviewing, modifying as agreed, and endorsing the "Memorandum of Understanding on Environmental Priorities" (MOU) and reaching agreement on the appropriate procedures and institutions to implement the agreed MOU including procedural and financial provisions for on-going investigations, planning and monitoring of the environment in the region;

Enabling the Riparian Governments to meet to reach agreement on the form, scope and work plan for a Regional Environmental Management Plan as recommended in the Preliminary Environmental Study. The Governments will be provided with some technical and/or financial assistance from external agencies to assist them implement action on these items.

Improving Services
Infrastructure Development
Investors, business people and the general public in the region need to have an improved regional infrastructure providing services that are competitive with those available elsewhere. Governments plan to obtain external investment to help fund infrastructure improvements. To encourage such investment, Governments will make available thorough regional assessments of needs and estimates of technical, economic, environmental, social and financial feasibility. Governments will give priority to those projects that will give the highest returns to the region overall. In the transport and telecommunications sectors, Governments are presently reaching agreement on an indicative plan as a basis for setting priorities. In the power sector, Governments are considering the scope for joint power generation. The participating Governments are seeking to attract investors and thus improve services by:

Reviewing, modifying as agreed, and endorsing the recommendations in the Conceptual Infrastructure Masterplan for TREDACo; Participating in and contributing to the studies needed to obtain additional finance for the construction of TREDACo infrastructure and inter-connections; Determining their common policy to joint infrastructure development schemes such as a joint power generation and distribution scheme and joint water supply schemes; Reviewing and agreeing on preferred arrangements for telecommunications development.
The Governments will be provided with some technical and/or financial assistance from external agencies to assist them implement action on the last three items.

Facilitating Trade

The participating Governments are identifying those policies and regulations that are discouraging trade and investment and have undertaken to negotiate with each other to agree on changes in these regulations over an agreed time period. They plan to implement these measure to expand trade by:

- Establishing a Trade Facilitation Group to deal with trade issues.

Streamlining Customs and Visa Issue

The Governments are investigating opportunities to allow business people to travel freely in the region and to send and receive goods and services across the borders with minimal effort, cost and delay. They are also discussing the arrangements needed to facilitate bonded transit corridors, joint customs, standardized inspection and documentation procedures and many other such measures.

To help implement these measures, Governments are:

- Establishing a Working Group to review customs and visa issue procedures and they are negotiating simplified border crossing and visa issue procedures and a timetable for their introduction.

Encouraging Exchange of Information

The participating Governments are seeking to increase the inter-change of information amongst business groups and trade associations in the region. This action is based on the judgement that trade within the region would be greater if there were greater knowledge of the resources, markets and the laws and regulations that govern business in neighbouring sub-regions.

Governments are committed to:

- Encouraging the exchange of information concerning the resources and markets available and the laws and regulations that govern business in neighbouring sub-regions.

Rationalizing Pricing and Incentives

The Governments recognize that trade between the sub-regions and with international markets will be distorted and will not be sustained if it is not based on real (market-determined) prices for goods and services. Similarly, Governments are aware that trade can also be distorted and the total value of trade reduced by incentive schemes if these are not
carefully designed. Governments are planning to establish a forum to discuss such issues so that each country is aware of possible changes in the pricing arrangements for goods and services in neighbouring sub-regions. The Governments plan to progressively rationalize prices and to avoid negative impact of incentive schemes by:
- Removing price controls, quotas, and import or export restrictions and eliminating barter trade as quickly as is practical;
- Reviewing the impact of incentive schemes to particular industries or to exporters to make these "contestable" and to ensure that only the most efficient receive the incentives.

Attracting Investment and Technology and Improving Market Access
Although the region has a comparative advantage as a result of its position, its resources and its complementarities, it requires access to outside capital, technology and wider markets to turn this into a competitive advantage. Governments plan to assist efforts to access these resources in three ways as indicated below.

Building Investor Confidence and Reducing Risks
Governments are committed to helping minimize investment risks to boost investor confidence. Some of the risk may best be removed on an individual country basis; some will require bi-lateral action; and others will require multi-lateral action. In this later area, the joint commitment to the International Agreements will provide the foundation. It will also establish an agency whose functions will include investment promotion and inter alia building of investor confidence.

The participating Governments will further help build investor confidence by:
- Committing their own funds to providing part of the infrastructure and support services;
- Ensuring that representatives from the region are actively involved in the examination of the feasibility of joint (multilateral and bilateral) projects and that they reach agreement on the roles and responsibilities of all parties in the project;
- Closely monitoring the development efforts of private groups and assisting in whatever ways possible, particularly in the early stages. (The most persuasive argument from an investor’s perspective will be the proven performance of similar development initiatives.
in the region);

Investigating a range of other measures to reduce the risks to outside investors.
The Governments will be provided with some technical and/or financial assistance from external agencies to assist them implement action on item 19.

Promoting Investment
Governments are taking steps to make it easier for investors to invest in TREDAN. One of the proposed measures will create TREDAN Investment Promotion Centre (TIPC) which is planned to comprise branches in Rajin, Hunchun and Vladivostok and local offices in Chongjin, Yanji and Nakhodka or Zarubino. The TIPC will be assisted under Phase 2 of TRADP and will streamline the process that investors need to go through to make investments in TREDAN.

Under Phase 2 of TRADP, the participating Governments will be assisted in making full use of the various forms of assistance for investment promotion available from the relevant UN agencies, and in particular, from UNIDO.

Facilitating Financing Arrangements
Development will require large amounts of capital: even with modest growth we estimate that investment requirements will exceed US$6 billion in the period to 2000 and perhaps US$30 to 40 billion in the period 2000 to 2010. The Governments plan that at least half of the investment should come from the private sector. Governments accept the need to fund part of the balance from within their own budgets, and to attract the rest from multilateral development banks and bi-lateral donors. Governments will help attract these sources of finance by:

- Undertaking to prepare comprehensive feasibility studies that meet the requirements of the various potential lenders including Official Development Assistance (ODA) agencies;
- Directing the implementing agency established under the International Agreements for the implementation of TRADP to investigate the scope for linking ODA so as to support investment in projects extending across national boundaries.

ACTION REQUIRED TO IMPLEMENT THE SECTOR STRATEGIES
In addition to action to implement the broad development strategy as outlined above, the participating Governments plan to take action to encourage the development of those sectors of their economies that offer actual or potential comparative advantages. In contrast to the broad strategy, these actions will need to be taken by individual countries
or regions, however, their impact will be felt throughout the region to the benefit of all.

Primary Industry Development
The riparian Governments plan to foster the development of the forest sector by:

- Reviewing the recommendations of the report on "Project Development and Environmental Strategy for the Forest Sector" in relation to timber harvesting, plantations and downstream processing and deciding the degree of integration of the industry that they judge desirable between the three countries;
- Reviewing and implementing as agreed the recommendations of the Environmental and Forest Strategy in conjunction with decisions on environmental planning.

The Governments in the region plan to manage the fishery in a manner that allows sustainable harvests. To develop the appropriate management plans, Governments of RF and DPRK plan to discuss measures to protect the fisheries resources and to examine scope for improved marketing.

Mining
Governments are encouraging private sector investors interested in the mineral developments to participate in rail development throughout the region. They are also considering joint approaches to the multilateral development banks for assistance with funding of transport links in association with major private sector partners. Planning for development of such links will be coordinated with the development of mining activities which provide the economic justification for their development.

Secondary Industry Development
The participating Governments’ basic strategy for secondary industry will be to exploit the comparative advantage that the region offers in terms of relatively low labour costs and good access to raw materials. Government’s role in this strategy will be minimal and will concentrate on getting the fundamentals right as outlined in the broad strategy. However, the few specific actions that Governments are considering to assist the development of the sector are:

- Encouraging modernization of supporting heavy industries such as steel, chemicals, plastics etc. through joint ventures or other technology transfer options with the result that labour-intensive light industries will have improved access to intermediate goods and equipment;
Accelerating the reform of markets within their domestic economies for goods which are still subject to significant price controls;

Progressively removing technology transfer restrictions that might inhibit the development of high-technology industries.

Tertiary Sector Development

The tertiary sector has received relatively little attention to date but has considerable potential for growth. Government’s role in assisting such growth will be minimal although there may be some specific contributions that could be made to assist tourism, particularly by joint promotional efforts. Overall, Governments will contribute by:

Avoiding excessive regulation of the industry and by helping promote foreign or domestic firms planning to provide tertiary services into the region.

Indicative Benefits

The participating Governments anticipate that the regional GDP for TREDa will grow at an average of 8% per year over the period to 2000 and perhaps at 16% in the decade to 2010 given the high level of commitment that Governments are making to the development of the region. They anticipate that the proposed development strategy will enable them to conserve the environmental values of the region and to provide the basis for sustainable long term development.

ACRONYMS AND ABBREVIATIONS

ADB           Asian Development Bank
DPRK          Democratic People’s Republic of Korea
EC            European Community
FDI           Foreign Direct Investment
GATT          General Agreement on Tariffs and Trade
GDP           Gross Domestic Product
GEF           Global Environment Fund
ICOR          Investment Capital to Output Ratio
IFC           International Finance Corporation
ITC           International Trade Centre
MOU           Memorandum of Understanding
NEA           North East Asia
ODA           Official Development Assistance
PMC           Programme Management Committee
PRC           People’s Republic of China
RDS           Regional Development Strategy
RF            Russia Federation
ROK           Republic of Korea
TRADP         Tumen River Area Development Programme
ACKNOWLEDGEMENTS
This Final Report is one of the products of an intensive effort involving a great many people.
The major contributors to the report have been the members of the National Teams who participated in the Beijing Workshop and provided their valued inputs to the study at various stages. The contributions made by the National Team representatives were outstanding and went far beyond the written word because it was through those contributions that understanding and cooperation amongst the participants continues to grow. Special mention is warranted to those who participated in the field visit and workshop including Mesdames Liu Jing Sheng of PRC and Hwang Ran of DPRK and to Messrs Ick Soo Kim of ROK, Vladimir Stegniy and Ioury Kochevoi of Russian Federation. In addition to the contributions of the National Teams, we benefited immensely from the time and effort made by other representatives of Governments and private sector organizations who not only provided us with as much information as was available but also extended a very generous level of hospitality.
The Team received excellent support from the TRADP Secretariat, from the Office for Project Services and from the Regional Bureau for Asia and the Pacific. In addition, the support provided by the Resident Representatives of UNDP were invaluable. Special mention needs to be made of the support and assistance provided by Dr. Ian Davies, the Country Director for UNIDO in China since without his detailed knowledge and field support it would have proved very difficult to operate.
We also benefited greatly from the contributions of the various consultants both at the Workshops and in the field.
On behalf of the members of the PDP Australia team we gratefully acknowledge the outstanding assistance and cooperation provided and the warm hospitality extended to us.

G. B. Hayes
Team Leader
PDP Australia Pty Ltd
TABLES, CHARTS & GRAPHS

TABLE 1

<table>
<thead>
<tr>
<th>Rajin-Sonbong</th>
<th>Yanbian</th>
<th>South Primorsky</th>
<th>Population (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>0.32</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>2.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>1.43</td>
<td>2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Value of Output</th>
<th>per person (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>640</td>
</tr>
<tr>
<td></td>
<td>2,760</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Value of Output</th>
<th>(billion US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>67</td>
</tr>
<tr>
<td>Rajin-Sonbong</td>
<td>South Primorsky</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>0.15</td>
<td>0.24</td>
</tr>
<tr>
<td>2.55</td>
<td>4.16</td>
</tr>
<tr>
<td>1.43</td>
<td>2.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Value of Output per person (US $)</th>
<th>1994</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>400</td>
<td>425</td>
<td>700</td>
</tr>
<tr>
<td></td>
<td>640</td>
<td>860</td>
<td></td>
</tr>
</tbody>
</table>
Gross Value of Output
(billion US $)

<table>
<thead>
<tr>
<th>Year</th>
<th>1994</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.06</td>
<td>0.06</td>
<td>10.17</td>
</tr>
</tbody>
</table>

1.40
2.19
9.27

3.30
3.30
7.23

Chart indicating Growth of Trade in Region (Million of Yuan)


View this online at: https://nautilus.org/aprenet/a-regional-development-strategy-for-the-tumen-river-economic-development-area-and-north-east-asia-4-22-94/