Developing Bankable Transport Infrastructure Projects: Case Studies, Experiences and Learning Materials for LLDCs and Transit Countries

Module 3. **How to Establish and Sustain a Business-Friendly Environment in the Country to Promote Investment towards Transport Infrastructure**

These learning materials were developed for capacity building activities to strengthen capacity to develop bankable transport infrastructure projects and transport connectivity in landlocked developing countries and transit countries. The learning materials were commissioned by the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS) in collaboration with partners UNESCAP, UNECA, UNECE, UNECLAC, African Development Bank and Asian Development Bank. UN-OHRLLS and partners worked with Mr. Glory Jonga in preparing the training materials. The views expressed do not necessarily reflect those of the United Nations.

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1.1 Key Objectives of the Module

- To equip participants with knowledge on how to establish and sustain legal, regulatory, and institutional environments that promote investment towards transport infrastructure and services implementation.

1.2 Developing Investment Friendly Laws, Regulations and Policies

1.2.1 Creating Enabling Environments that Promote Transport Connectivity

Efficient transport connectivity and resilient transport infrastructure are important means through which LLDCs can build up their productive capacity, attract investment including foreign direct investment, compete in international markets, and support social development and climate action. However, the lack of an enabling environment for investment in infrastructure from a policy, legal, and regulatory framework perspective is noted as one of the significant challenges in implementing efficient transport projects.

In Module 1, it was highlighted that creating an enabling environment - be it economic, political, legal, regulatory, policy, or institutional - is vital to making transport projects bankable. “Upstream” preparation such as creating enabling legislation, designing investor-friendly regulations, reforming project-relevant institutions, setting clear policy, and building capacity within government agencies forms an important base for attracting lenders or investors for projects and attaining bankability. The lack of a basic legal and regulatory enabling environment can stall project development as can a weak policy environment.

The following presents some actions that can be taken to create an enabling environment for infrastructure development and in particular, to attract investment in the transport sector.

1.2.2 Developing Policies that Promote Investment in Transport

Good transport policies are transparent and consultative. Nearly all transport policies, plans, and systems impinge upon a wide range of users and community groups therefore consultation with key stakeholders and the general public is not only desirable but essential to gaining all the information and perspectives needed for good policymaking (Amos, 2008).

Financers want to know about the policies of a country because policies affect decisions concerning the allocation of resources, the management and regulation of existing transportation activities, and the structure of the transport system (for example is there a deliberate policy to incentivize/involve the private sector in transport development).

To promote investment in transport infrastructure, governments should consider policies which do the following:

- Define public and private sector roles in transport delivery;
- Improve the performance of state-owned enterprises;
- Encourage private sector participation;
- Preserve the value of public assets;
- Set standardized transport prices;

- Foster competition and strengthen regulation;
- Make transport more inclusive;
- Promote transport safety;
- Develop a sustainable transport system that is friendly to the environment;
- Fight corruption;
- Improve governance of the transport sector, including:
  - Transport planning,
  - Transport management and operation,
  - Transport data and monitoring, and
  - Transport funding;
- Improve regional and continental connectivity, which is particularly important for LLDCs.

Policy forms the basis for legislation. Policies are frequently, though not exclusively, incorporated into laws and other legal instruments that serve as a framework for developing planning interventions, and are thus a good starting point for creating an enabling environment for investment.

Tenets of Good Transport Policies

Transparency

Transparent regulations governing transport infrastructure investment are essential to provide a stable framework for investment and encourage private sector participation, particularly through Public Private Partnerships (PPPs). Ensuring policy transparency also helps fight corruption in the provision of transport infrastructure, for example through transparent public procurement.

Non-Discrimination

Ensuring non-discrimination can help drive foreign investments. Governments, for instance, can create legal incentives for foreign investments and allow foreign investors to establish enterprises within a country.

Policy Harmony

Policy harmonization between different departments, ministries and governments that would be involved in the development of a project is also important. Harmonization is important at local level e.g. similar policy/regulation between different political units within a country, but also at international level e.g. harmonization of national customs laws and policies of states along a particular transport corridor.

A Consistent Policy Orientation

Transport infrastructure projects typically take several years to be developed and are often politically sensitive. As such, they are vulnerable to government change which could result in a position reversal regarding any previous agreements. This is particularly concerning for private investors who face considerable entry costs when entering a market. For example, private operators have to carry out full due diligence of the legal and fiscal environment and are unlikely to do so if the policy direction of the government is unclear. Against this backdrop, the development of a national strategy for PPPs could mitigate such political risk by building wide support and a long-term vision for the sector.

Focus on Financial Sustainability

Offering efficient transport systems comes at a cost throughout the project cycle from project planning stage, construction, operation, and maintenance. To avoid the common situation of having dilapidated infrastructure, governments should focus on ensuring that their transport policies take cognisance of financial sustainability – be it through user pays principle, greater efficiency, greater involvement of the private sector or other policies that promote financial sustainability of projects.

Focus on Environmental Sustainability

Sustainable transport systems make a positive contribution to the environmental, social and economic sustainability of the communities they serve. More sustainable forms of transport, such as public transport, require a significant amount of upfront investments. However, the benefits outweigh the costs: sustainable transport enables the reduction of congestion, reduces environmental degradation, accidents and other costs, and helps increase employment and generate more value for the economy. Governments can reap the large benefits of sustainable transport by pursuing two core aims, namely: Pushing demand away from private motorised transport, and Pulling demand towards public and other forms of sustainable transport.

The two aforementioned aims can be realised by the so-called "Avoid-Shift-Improve" strategy which contains a wide range of policy options that collectively:

- **Avoid** or reduce the number of journeys/length of trips taken;
- **Shift** to (or preventing the shift away from) more environmentally efficient forms of transport; and
- **Improve** vehicle and fuel technology to improve environmental efficiency.

Encourage Private Sector Participation

Governments have a central role to play in mobilising private investment in the transport sector by establishing reform agendas that deliver "investment-grade policies". An integrated framework with clear and stable transport policies, sound investment policies, and targeted and innovative tools is essential to overcome barriers to private sector investments in transport.

Mobilisation of private capital through the expanded use of blending mechanisms, including PPPs, mixing of grants and loans, and financial guarantee instruments, needs to be a joint effort by governments, interested private companies and financial institutions. This type of financial arrangement is necessary because developing countries require massive increases in both public

and private sector financing in order to meet the infrastructure investment needs over the next decade (European Commission, 2015).

The private sector's role in transport infrastructure development has grown as a result of deregulation of formerly state-owned monopolies, and the move to joint projects with the private sector characterises many public investment choices. Given the limited fiscal space that reduces the scope for financing infrastructure development from public resources, the private sector is now increasingly seen as an additional, often complementary, source of finance. However, the scope for such co-financing arrangements is limited by administrative and procedural conditioning (European Commission, 2015).

1.2.3 Developing Supportive Legal and Regulatory Frameworks

An enabling legal and regulatory environment is one which provides but is not limited to:

- Promotion of peace and stability;
- The rule of law;
- Good governance with accountability and transparency;
- Property protection;
- The absence of corruption;
- Non-discrimination;
- Availability of justice or recourse;
- Fair arbitration;
- Efficient policing; and
- Enforceable contracts.

An ideal legal and regulatory framework is one in which autonomy, accountability, transparency and predictability exist. Having a solid legal and regulatory framework is important for lenders and for private sector participation. The lack of a well-developed legal and regulatory framework increases the level of risk to investors because they may fall victim to monopolies, conflicts of interests, contract issues and other such challenges. It also encourages investors to rely on special situations and political relationships rather than their merits as a means for securing and implementing contracts.

A good legal and regulatory framework should include the following aspects:

- An independent and fair judiciary.
- Legislation against informal payments.
- Enforceability of contracts.
- Clear laws on land ownership / property rights.
- Clear laws / regulations on resettlement and compensation.
- Effective policing and law enforcement capacity.
- Trade facilitation regulations.
- Economic regulation that deters anti-competitive practices.
- Autonomous regulatory agencies with independent funding and professional staff.

- Harmonisation of policies, standards and guidelines within the country and internationally (e.g. harmonisation of policies / regulations at border crossings between countries).
- Facilitate private sector participation.
- Speed-up project development.
- Increase transparency in infrastructure investments.
- Comply with international conventions.

For LLDCs, efficient cross-border traffic flow may require many changes in the existing laws and practices related to matters such as recognition of driving and vehicle licenses from other countries, insurance and liabilities of goods in transit, waybills, customs/border control clearance procedures, information systems, safety standards, and labour laws and practices. It is therefore important that there is legal and regulatory harmonisation between countries involved in the cross-border project.

Changes in laws may also be required for matters related to technical specifications of vehicles and other equipment to permit traffic from one country to another. Reforms may also be needed in existing legal institutions. Many laws and rules can be obsolete or require changes in view of the changing environment; for example, regulatory standards on vehicle, fuel and emission control, financial and other incentives for the promotion of sustainable development measures, and recognition of electronic documents to facilitate fast paperless transactions or payment of fees.

1.2.4 Developing Strong Institutions

Institutional strength in transport development and implementation is vital to attract financers. Governance capacity and human capital within institutions, organisational experience and co-ordination among ministries is critically examined by financiers.

Several institutions are involved in the transport sector development as follows: ministries of transport/infrastructure development; PPP units; financial institutions; procurement regulatory authorities; ministries of finance and economic development; project sponsors/developers; community groups; and many others.

Each of the above institutions has a key role to play. Many barriers to transport development are institutional in nature. Deficiencies in present institutions, particularly laws, regulations, rules, and governance institutions outlining how organizations function and conduct their dealings with other organizations and stakeholders can be barriers to transport projects development.

The lack of technical skills, transport sector management skills, and good governance can also be a significant challenge in institutions within the transport sector particularly in developing countries. Financers want to know that there is human resource capacity and skills within ministries / departments in order to build / implement a project; and due to the multi-sectoral nature of infrastructure development, they also want to see a collaborative effort to successfully implement a project. In addition, financers are looking for the availability and implementation of transparent procurement rules and procedures, and procurement authorities or departments with a clean track record.

To improve institutional performance, LLDCs should improve the transfer of knowledge and experience among themselves on institutional, economic and social aspects and build capacity.

Building Capacity

Reforms in transport sector governance institutions are needed in most developing countries, including LLDCs. It is not uncommon to see that the mandates of transport development agencies, as may be specified in their legal statutes or administrative orders, can be often contradictory as well as over- and under-lapping. The laws may require the agencies to coordinate with other relevant agencies but may not mention any definite means (institutional mechanism) for that purpose; or whatever mechanism is specified is not effective to deal with complex multi-sectoral issues handled by multiple agencies.

In order to assume the changing role of the public sector, revitalization of the existing organizations should focus on capacity building, developing a culture and institutional mechanisms for cross-sectoral policy formulation and collaboration between organizations, allocation of resources, and access to new technology (especially related to applications of ICT), etc. A successful bankable project requires having people with the right skills, knowledge and availability to deliver the project and ensure its longer-term sustainability.

Countries should: review skills and staff against their objectives; train new/ available staff through more on the job trainings; and secure the required resources for capacity building.

Along with the reforms and revitalisation of existing organisations, setting up of new ones especially regulatory bodies, and reform of existing regulatory regimes may also be required to facilitate greater involvement of the private sector, public participation, competition, and to protect social interests at large.

1.3 Examples of Investment Friendly Policies

1.3.1 Case Study: Botswana

Botswana has received international recognition in being politically stable, governed through the rule of law and participatory democracy, accountable, and one of the least corrupt countries in Africa according to Transparency International (2019). The country continues to be awarded high ratings by Transparency International through its Corruption Perception Index, Ibrahim Index of African Governance, and the World Justice Project. These attributes are critical for the promotion of economic growth and quality of life and provide a suitable basis for investment.

Investors and lenders are also attracted to the country because of the following investor friendly policies / regulations / laws:

- Botswana is among the most stable and transparent countries in Africa.
- Foreign exchange controls were abolished in 1999 which guarantees free repatriation of profits, dividends and capital.
- Access to Southern African Development Community (SADC) market of over 292 million people, Europe and the USA through various instruments:
  - The country is a member of SADC and the organisation's headquarters is located in Gaborone, Botswana.
  - The country is a member of the Southern African Customs Union (SACU), which allows movement of goods amongst South Africa, Swaziland, Lesotho, Namibia and Botswana free of customs duty.

  - The country has duty free and quota-free access to Europe.
  - The African Growth Opportunities Act enables Botswana to export to the USA on a liberal basis.
- Investors have access to double taxation avoidance agreements with South Africa, United Kingdom, Sweden, France, Mauritius, Namibia, Zimbabwe, and Russia.
- Protection of foreign investment through the Constitution which prohibits nationalisation of private companies.
- Botswana is also a Signatory to the World Bank's Multilateral Investment Guarantee Agency (MIGA) and to bilateral investment treaty in 1997 with the Overseas Private Investment Corporation (OPIC), which provides guarantees for US private investors.

The Kazungula Bridge Project (KBP)

Botswana's legal and regulatory environment including being signatory to regional bodies such as SADC has helped the country to improve transport connectivity. One illustrative example is the Kazungula Bridge Project (KBP) which was largely completed by the end of the year 2020. The estimated total project cost is USD 259.3 million. The African Development Bank (AfDB) covers from the African Development Fund (ADF) window an equivalent to 31.5% of the total project cost. The balance is shared between Japan International Cooperation Agency (JICA) (57.5%), Governments of Botswana and Zambia (9.2%) and EU-ITF Grant (1.8%).

AFD (2011) documents reveal that the legal and regulatory frameworks in place were one of the many aspects of the project that the external financiers assessed. AfDB examined the two countries' commitment to regional cooperation within SADC; assessed their procurement systems (which were found to be lacking in some aspects, therefore AfDB's systems were used); stressed the need for harmonized transport policies and programs between the two countries; and many other factors.

1.3.2 Case Study: Kazakhstan

The Intergovernmental Agreement on Dry Ports

The Intergovernmental Agreement on Dry Ports was opened for signature at Bangkok on 7 and 8 November, 2013 and entered into force on 23 April, 2016. As of 1 February, 2020, 14 ESCAP member States are Parties to the Agreement (UNESCAP, 2013)**.** The Intergovernmental Agreement on Dry Ports is aimed at promoting and developing dry ports of international importance as one of the means to establish an international integrated intermodal transport and logistics system within Asia as well as between Asia and its neighbouring regions.

The Agreement provides a uniform definition of a dry port of international importance, identifies the network of existing and potential dry ports of importance for international transport operations and offers guiding principles for their development and operation.

Annex I to the Agreement contains a list of existing or potential dry ports in Economic and Social Commission for Asia and the Pacific (ESCAP) member States which should be brought into conformity with the guiding principles for the development and operation of dry ports as per Annex II to the same Agreement. Successful experiences have already taken place in a number of countries including in Kazakhstan, where road and rail-linked facilities have been inaugurated at Khorgos at the border with China (UNECE, 2013).

Road and Rail-Linked Facilities at Khorgos at the Border with China

The Khorgos Gateway is one of the most ambitious projects in China's Belt and Road (BRI) initiative, connecting Kazakhstan to China. It is the biggest dry port in Central Asia, handling cargo for trains instead of ships (Birimzham, 2020). It is set to play an important role in global trade, as production moves westward in China and markets in Iran and South Asia open up, reviving the use of rail and road. Kazakhstan – and Khorgos – will be the natural transit corridor on the new Silk Road.

Trains today can carry goods from eastern China to Western Europe in about two weeks, cutting delivery time by up to two-thirds compared with container ships, and at a fraction of the costs required in shipping via air. The potential is likely to be bigger once new technologies, such as driverless cars, trucks, and trains make it possible for overland vehicles to operate around the clock, reducing time and costs against the backdrop of booming e-commerce globally (Birimzham, 2020).

Agreements such as the Intergovernmental Agreement on Dry Ports have led to the increased development at Khorgos. Future Free Trade Agreements between Kazakhstan and Singapore, the Eurasian Economic Union, of which Kazakhstan is a member, China, ASEAN member countries, and European Union member countries will help to fuel this growth as well. The Khorgos Gateway received its first trains in the autumn of 2015 and has been handling about 150,000 teu of containers as of 2019. The figure is expected to rise to 500,000 teu by 2023.

That Kazakhstan shares a 1,780 km border with China puts the country in good stead of offering an alternative or supplementary land route to maritime shipping for cargo from China, Japan and South-east Asia, to Europe – serving as a central station of sorts on an overland New Silk Road. With the completion of Chongqing Connectivity Initiative, South-east Asia will also be able to access to Eurasian market more easily, and vice versa. The Khorgos Gateway is now Kazakhstan's main port along the trans-Eurasian network, which includes cities like Chengdu, Suzhou and Zhengzhou in China and Duisburg, Warsaw and Hamburg in Europe.

Enabling Environment

Since its independence in 1991, Kazakhstan has made significant progress toward creating a market economy and has achieved considerable results in its efforts to attract foreign investment. As of January 1, 2019, the stock of foreign direct investment in Kazakhstan totalled USD 160.4 billion (U.S. Department of State, 2019). In just 28 years (1991-2010), the country attracted over $320 billion of foreign direct investment (FDI) (Sartbayev, 2020). The largest international trade corridors pass through the country thanks to the consistent efforts on infrastructure development and active involvement in the Belt and Road Initiative.

Investors are attracted to the country because of the following friendly policies:

- Twelve Special Economic Zones have been established offering tax incentives.
- KAZAKH INVEST supports investment projects as a one-stop shop.
- The Astana International Financial Centre (AIFC) has introduced English common law principles to the Central Asian region.

- The Government continuously works to improve the investment climate. This primarily includes judicial reforms, digitalization, optimization of public services and the permit system, among other initiatives.
- Modernisation of the current legislation. For instance, the Government has recently approved a draft amendment to the AIFC Constitutional Law, which enables AIFC bodies to adopt acts regulating labour relations and procurement procedures.

In July 2018 the Government of Kazakhstan officially opened the Astana International Financial Center (AIFC), an ambitious project modelled on Dubai, which aims to offer foreign investors an alternative jurisdiction for operations, with tax holidays, flexible labour rules, Common Law-based legal system, separate court and arbitration center, and flexibility to carry out transactions in any currency.

1.3.3 Case Study: Moldova

According to the 2020 World Investment Report by UNCTAD, FDI inflows to Moldova amounted to USD 589 million in 2019, up from USD 308 million of the previous year (UNCTAD, 2020). The total stock of FDI was estimated at USD 4,8 billion in 2019. The bulk of FDI comes from other EU countries.

Investors are attracted to the country because of the following friendly policies:

- Moldova has signed comprehensive double taxation agreements with 50 countries, of which 48 are in force. The Double Tax Treaties may provide for more favourable tax regimes than those provided by the local legislation.
- Investment climate - Foreign and domestic investors are treated equally under the Moldovan legislation and the legal framework is the same for foreign investments.
- According to the Moldovan Constitution, the state must ensure the inviolability of foreign investments. The Government is keen to establish coordinated policies and well-balanced legislation in order to stimulate both domestic and foreign investments.
- The legal framework for the protection of foreign investments consists of the Law on investments in entrepreneurial activity and international bilateral treaties for the facilitation and mutual protection of investments. These ensure that investor interests are protected.
- The law prohibits discrimination against investments based on citizenship, domicile, residence, place of registration, place of activity, state of origin or any other grounds. The law provides for equitable and level-field conditions for all investors. It rules out discriminatory measures hindering the management, operation, maintenance, utilization, acquisition, extension or disposal of investment.
- Investment promotions: The country has many promotion opportunities for foreign investors. The European Union in connection with the European Bank for Reconstruction and Development (EBRD) is promoting such investment opportunities through Moldovan banks.
- The country has seven Free Economic Zones where local and foreign investors may carry out entrepreneurial activities under a preferential regime, i.e. benefiting from special guarantees and facilities (tax, customs, regulatory, immigration, etc.) As a result of the actions taken since the launch of their activity, the total volume of investment in free

economic zones amounted to 285.3 million US dollars, of which in 2016 - 55.2 million US dollars were invested. The total volume of net sales of industrial production in that period amounted to 4.5 billion lei or 10.4% more than the previous year. The total volume of investments in the International Port, during its entire period of activity, as of October 1, 2016, amounted to 67.9 million US dollars, including 4 million US dollars for the management period (Tatiana Faina, 2020).

The Marculesti International Free Airport

The Marculesti International Free Airport, a former military air base, was established in 2008 as a free enterprise zone for a 25-year period to develop cargo air transport. Airport management is also interested in turning Marculesti into a regional hub for low-cost passenger airlines (Stopfakes, 2017).

In October 2010, within the Transport Corridor Europe-Caucasus-Asia (TRACECA) project, a business plan was presented in Brussels for creating an international logistics centre in Marculesti. It was planned that in the first stage in 2012-2014 investments would reach €10mn, in the second stage in 2015-2018 – €4mn, and in the third stage in 2019-2022 – €2.7mn. Some of the funds would have been used to install proper lighting for night flights, to repair the runways, refurbish the airport, buy 10 new planes and open a training school for pilots (IntelliNews, 2019).

In 2019 representatives of the Sichuan Ruifeng Investment Management Group (China) discussed plans to invest in the Moldovan air transportation sector with officials from Moldova's ministry of economy. The representatives applauded the Moldovan government's support for foreign investors and were also attracted to Marculesti international airports to its geographical position which gains it the potential to become a very important centre contributing to the exchange of goods between Europe, Asia, Africa and the Middle East (IntelliNews, 2019).

1.3.4 Case Study: Bus Rapid Transit in Curitiba, Brazil

Background

Curitiba is widely acknowledged to have pioneered bus rapid transit (BRT) as an affordable solution to transport problems in developing cities (Federal Environment Agency in Germany (FEA), 2012). It also demonstrates best practice in informed policymaking, with a high degree of political awareness of, and commitment to, non-car oriented transport planning principles.

A bus rapid transit system was introduced to Curitiba in 1974, as part of a package of reforms to transport and land-use planning, replacing a chaotic system of unregulated paratransit routes. It resulted in a 2.36 % annual increase in bus patronage, and a drop in road traffic of 30% over its first 30 years of operation (FEA, 2012).

Of particular note is that the system is financially self-sufficient: routes are competitively tendered and require no operating subsidies. Key to these initiatives was the three-time mayor of Curitiba, Jaime Lerner. The elected policymaker used his academic background in urban planning to shape the city's urban development strategy in the early 1970s, maximising the benefits of the federal funding made available (FEA, 2012). In particular, an early decision was made to reject an underground metro or tramway in favour of a more extensive high capacity BRT network (FEA, 2012).

Description of Strategy

A total of five dedicated expressways were constructed, at a cost of 200 000 US-$ per km, which is at least 100-fold cheaper than an underground metro (FEA, 2012). The key corridors are served by distinctive red bi-articulated vehicles, offering a maximum crush-loaded capacity of 270 passengers (FEA, 2012). These are complemented by a number of feeder and orbital bus routes (see table below), forming a comprehensive network that maximises accessibility across the city.

Table 0.1: Curitiba BRT and bus network.

Route type	Description
Red	▪ Express buses on thirteen radial routes, using 65 km of dedicated expressways on arterial roads
Orange	▪ 340 km of feeder routes
Green	▪ 185 km of inter-district orbital routes
Silver	▪ 'Speedy buses' to/from surrounding areas
Yellow	▪ Radial routes complementing the red lines
White	▪ Inner orbital 'circle line'

Community groups were involved in participatory planning at the network planning stage, helping to inform the location of stops and route design. Today's public transport network comprises 340 routes on a total network length of 1 100 km, summarised in the table above (FEA, 2012). The system is fully integrated: only one flat fare ticket is required for a journey, regardless of distance and transfers. Smartcards have been in use since 2003. Passengers pay before boarding at covered terminals, offering a high quality waiting environment. In addition, school children and pensioners travel free. The system's speed and simplicity has contributed to its commuter trip modal share of 75%. It has been estimated that 28% of users would switch to the car in the absence of the expressways and other priority measures (FEA, 2012). Private companies own the vehicles and are paid a route-specific fee per kilometre, with the municipality taking revenue risk. Fares are kept low, such that inhabitants spend only 10% of their income on transport.

As mentioned above, the system requires no operating subsidy. High density development has been permitted along the key bus corridors, providing the volume of passengers required for economic self-sustainability of a dense network of high frequency services (FEA, 2012).

Applicability

This integrated approach to urban expansion and public transport provision can be implemented in other rapidly expanding cities. Indeed, Quito in Ecuador opened the first phase of its trolleybus-based system in 1996, inspired by the Curitiba experience (FEA, 2012). Infrastructure costs are relatively low, operating costs can be reduced by competitively tendering routes, and vehicle capital costs are borne by successful bidders. Sufficient travel demand can be generated by concentrating development along radial bus corridors, and by providing complementary feeder services. By leaving revenue risk with the tendering authority, fares can be regulated to optimise the balance between cost recovery and maximising accessibility to opportunities for the poor. The re-allocation of road space from cars to buses on the dedicated sections sends a clear signal that public transport has high status as a priority mode in rapidly motorising transition

economies, as well as cutting journey times and increasing reliability relative to conventional buses and the private car.

Key Take Away

- Seek independent academic and/or consultancy advice to make a more informed decision as to the most appropriate rapid transit mode for your city and/or for new corridors.
- Coordinate development along existing or planned high capacity rapid transit corridors, which should have dedicated road space and other priority measures such as traffic signal actuation.
- Design the system to function as a network, with simple 'one journey, one ticket' paper or smartcard ticketing, and optimised connections between feeder and trunk services at interchanges.
- Retain control and planning – routes, timetables and fares – in the hands of public agencies. By benchmarking the economic performance of operations, an informed decision can be made whether to offer day to day operations to the private sector by competitive tender. Contracts can include penalties for poor performance by operators and/or incentives to grow patronage.
- Ensure capacity keeps pace with demand, especially in rapidly motorising cities where a high quality, uncrowded alternative is required to dissuade car ownership and peak time car-use.

1.3.5 Case Studies: Russia and India

The following case studies of 2 transit countries are extracted and summarised from *Railway Reform: Toolkit for Improving Rail Sector Performance (2017)* prepared by the PPIAF supported by the World Bank. They present some best practice in the development of railway development particularly through railway reforms.

Russian Railways

The dissolution of the Soviet Union caused economic dislocations that had catastrophic consequences for the rail industry and between 1990 and 1995, freight traffic plunged by 52% and passenger traffic by 30%. To compensate for the overall losses, the railways raised freight tariffs, which depressed freight traffic even further. Freight modal share declined, while the rail share of loss-making passenger traffic increased from 40 to 49%. These significant traffic declines without corresponding operational reforms reduced both asset and staff productivity. Investment in new equipment and maintenance declined, with new equipment deliveries falling by over 30%. As assets and infrastructure deteriorated, the number of track-kilometers subject to speed restrictions increased by about 30%. Clearly, railways could not maintain their pivotal role in the economy without reforms.

A railway reform plan (Edict Number 426, 1997) was formulated and had following the major objectives: Stabilize quality and safety; Preserve a pan-Russian institution and ensure economic development; Ensure system interoperability; End cross-subsidies; Improve tariff-setting supervision; Increase transparency of financial flows in the industry; Reduce system costs; and Meet demand for transport services.

Decree Number 448 (1998) refined these goals, adding: end cross-subsidies, improve tariff-setting supervision, and increase transparency of financial flows in the industry. In order to achieve these goals, the railway reform strategy needed to leverage financing from the private sector. Government regulation and market mechanisms needed to create a favorable environment for private sector participation and increased competition in the railway sector.

The railway reform had three phases: Separation of Regulations and Operations; Separating Functions; and Establishing a Joint-Stock Holding Company and Developing Competition, and later on passenger service reform.

Freight transportation underwent the most significant reforms, and market performance results were impressive. Between 1995 and 2009, freight turnover improved by a dramatic 87% before succumbing to the effects of the 2008 global economic crisis. RZD saw an increase in demand for new rapid transit trains, with the highest passenger traffic increase seen on the Mosco-Smolsnek route and the Moscow-Belgorod route. Passenger turnover on rapid transit trains grew 25% to 2.5 billon passengers per km in 2015.

Conclusion

Lessons learned from the Russian experience in restructuring state-owned railways are as follows.

- Typically, crisis is the best driver for reforming the railways. Government agreed to embark on a restructuring process only after a few years of financial crisis forced it to confront the fiscal implications of railways operations and management.
- Restructuring is a long process. Russia approached reforms gradually, leaving RZD as the dominant party. Reforms have taken over 15 years, the years between 2000 and 2010 were the most active, which is longer than was originally planned, but progress was steady. As a result, reforms succeeded in expanding rail freight traffic, expanding market share, reducing freight rates, restoring operational productivity, and attracting private capital to profitable sector elements such as high-value freight.
- Introducing private companies into provision and maintenance of rolling stock may prove beneficial. In Russia it brought more than $50 billion of capital to the railway sector, freeing up RZD’s capital for the improvement of freight services.

Indian Railways

India has one of the largest and busiest railways in the world run by Indian Railways (IR). Traffic growth has underpinned management initiatives to attain steady and significant improvements in staff productivity and equipment utilization. Nevertheless, IR was historically not notably innovative in using modern rail technology, nor in transforming to more commercial management structures, nor focused on service quality or market-responsiveness. Instead, when seeking commercial focus, it tended to create semi-autonomous enterprises that bypass its own structures (The World Bank, 2017).

Improvements stemming from a Transformation Strategy led to the modernization and overall improvement to customer relations and a shift toward market-oriented decision-making. Capital expenditure – intended to increase average speeds, build high-speed rail lines, expand the broad gauge network, and revitalize the sorely neglected rail freight industry (most notably the Dedicated Freight Corridor (DFC) program) – was increased. Under the strategy, PPPs are

intended as the main mode of delivery for various projects, most notably DFCs and high-speed passenger rail development. Indeed, in 2014, Government opened up the sector to PPPs in a series of rail activities previously limited to the public sector, including: construction, operation and maintenance of suburban corridors, high speed rail, DFCs, rolling stock, railway electrification, signaling, freight terminals, passenger terminals, infrastructure in industrial parks, industrial connections and rapid transit.

The liberalization of the market (not to be understood as privatization) aimed to promote competition by allowing the entry of new operators, but will only be possible if there exists an adequate regulatory body that protects all stakeholders. The need to establish an independent regulator in order to advance the industry further cannot be stressed enough. Beyond the measures that have since been taken, the truth remains that government policy functions should be separated from commercial operations, non-core activities should be spun off, and commercial management on lines of business and market segments should be refocused. IR continues to house many activities outside what would be considered core functions, and should critically evaluate their impact on operating a financially stable and customer-focused railway business.

Since the 1989 Railway Act, India’s economy has been modernized and transformed by more open international trading relationships, greater reliance on market forces, a stronger role for the private sector, and greater competition in trade and services.

Conclusion

Lessons learned from the Indian experience in restructuring state-owned railways are as follows.

- Government policy functions should be separated from commercial operations, non-core activities should be spun off, and commercial management on lines of business and market segments should be refocused. IR continues to house many activities outside what would be considered core functions, and should critically evaluate their impact on operating a financially stable and customer-focused railway business
- The Ministry of Railways’ Indian Railway Board (IRB) policies have established corporatized entities to manage selected railway business segments outside the full bureaucratic and public service framework of ZRs. These are crucial in mobilizing financial resources as well as implementing projects
- The Indian experience does little to contradict the theoretical structural weaknesses of the monolithic railways structure. The overall degree of private sector participation in India’s rail sector is currently low by international standards, and it will be interesting to monitor the success of the newly minted PPPs as they mature. In practice, these PPPs should reduce the industry’s monolithic nature.

1.4 Key Messages

- The lack of a basic legal and regulatory enabling environment can stall project development as can a weak policy environment.
- Good transport policies are transparent and consultative.

- Tenets of good transport policies include transparency, non-discrimination, policy harmony, a consistent policy orientation, focus on financial sustainability and focus on environmental sustainability.
- An ideal legal and regulatory framework is one in which autonomy, accountability, transparency and predictability exist. Having a solid legal and regulatory framework is important for private sector participation.
- To improve institutional performance, LLDCs should improve the transfer of knowledge and experience among themselves on institutional, economic and social aspects and build capacity.
- In order to assume the changing role of the public sector, revitalization of the existing organizations should focus on capacity building, developing a culture and institutional mechanisms for cross-sectoral policy formulation and collaboration between organizations, allocation of resources, and access to new technology (especially related to applications of ICT), etc.
- A successful bankable project requires having people with the right skills, knowledge and availability to deliver the project and ensure its longer-term sustainability.

1.5 Exercise

- Participants to share existing policies and regulations from their countries / regions that they believe are business-friendly.

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