

Financing of Essential Air Transport Infrastructure – A Challenge for Developing Countries

Financing of essential air transport infrastructure often represents a challenge for developing countries. However, increased international pressure throughout the world for meeting basic safety and security standards drives poorer countries into the search for new methods and instruments for financing required air transport infrastructure. This article, submitted to the ICAO – McGill Worldwide Air Navigation Symposium in September 2006, outlines three possible alternatives for the financing of essential air transport infrastructure in developing nations.

Three Alternatives for the Financing of Air Transport Infrastructure in Emerging Markets

Meeting international standards has become an increasingly important reality in a global world, which has less tolerance for emerging countries not complying with such norms. This has become especially true in the field of air transportation, where technical standards have reached a level of sophistication no longer allowing “grey zones.” However, when it comes to establishing and maintaining the necessary air transport infrastructure, many emerging countries struggle to find a suitable financing model.

When evaluating options for financing emerging markets’ air transport infrastructure, we could group these into three main categories: (i) low cost, minimum standards, (ii) government financed solutions, and (iii) private participation in public infrastructure.

When considering which option is best suitable for a given emerging country, we first need to analyze its income from air transport related services. This is key, as certain emerging countries do in fact enjoy quite significant income from overflights and from landing fees. While some of these countries allocate part of these funds to air transport infrastructure and regulatory oversight, others absorb these funds in the central treasury, which in turn allocates very little to their country’s aviation need. For example, Mongolia collects about US\$ 40 million in overflight fees per year, and historically has allocated about 30% to air transport oversight and infrastructure. Afghanistan collects as well about US\$ 25 million per year. However, all of the Afghan overflight funds are transferred to the central treasury, which is faced with many competing demands. As a result, very little is allocated to the Afghan Civil Aviation Authority or its aviation infrastructure.

On the other hand, many developing countries are faced with a very small income base from air traffic management activities. This income never covers all air transport related financial needs, making it necessary to choose a minimum-cost solution and to find alternative sources to traffic related income for financing air transport infrastructure and oversight.

1. The low cost option: meeting minimum standards

Air transport infrastructure often requires important sums of investments. However, there is the possibility of meeting Standards and Recommended Practices (SARP)¹ of the International Civil Aviation Organization (ICAO) while still embarking only on relatively low cost solutions.

There are many examples where simple procedures can replace costly investments. In the field of air traffic control (ATC), for example, traditional procedural ATC² is acceptable as long as proper handling and separation of aircraft is guaranteed. In the area of security, electronic walkthrough detectors and X-ray machines for haul baggage screening can be substituted by a well trained and rigorous staff of absolute integrity opening every suitcase and hand-searching all passengers. In the case of physical airport infrastructure, the minimum solution would focus on operational infrastructure, such as runways, tarmac, and fire and crash services, with a costly terminal building being only secondary.

It is obvious that focusing on a minimum standards solution by just meeting the required SARP when it comes to aviation infrastructure would not be a popular path for many countries. However, too often air transport investments are primarily driven by prestige (an impressive terminal), by getting state-of-the art equipment (newest X-ray machines, a modern radar system), or on an over-dimensional airport infrastructure not adapted to local needs. Meeting minimum standards, in turn, can be a key element of confidence building when seeking financing e.g. from bi-lateral or multi-lateral partners.

2. Government financed solutions

The traditional source of financing is the allocation from the central treasury, as done in many developed countries. Air transportation is seen as a country's basic infrastructure. The classic justification aims at stating that the economic and social benefits of an efficient and safe air transport network are of prime interest and benefit to a country's society. This therefore justifies the allocation of public funds. In addition, the amounts to be allocated to air transport infrastructure in developed countries are proportionally often smaller than in other sectors, such as roads or even defense. This situation, however, is quite different in developing countries.

First, developing countries often have many more competing sectors in urgent need of financing. These sectors include basic social sectors, such as education, health, water and energy infrastructure, or the main road network of a country. Second, while developed countries have a large tax collection base, ranging from individuals, firms, and value added taxes, as well as various fees and service related taxes, lesser developed countries have mostly a thin income base of public funds. In these countries aviation related income can become proportionally very high, which makes adequate allocation to the aviation sector even more difficult. Finally, many emerging countries depend on imports for the development of their industries and infrastructure. However, these imports must

¹ SARP are described in 18 Annexes to the Chicago Convention. They define the minimum standards countries agree to, unless countries specifically have filed for a difference at the Council of ICAO.

² Procedural ATC is done without radar. An aircraft reports its position, including an estimate for a next waypoint. ATC keeps control and hands the plane over to the next controller when it leaves its airspace. Procedural ATC is done over most of the deserted parts of the World, including e.g. parts of Canada.

be financed with hard currencies. Aviation related income is often one of the very few sources of e.g. US Dollar income. These foreign funds are facing competing import related demands in an emerging market economy, making it difficult to allocate or earmark hard currencies towards aviation related expenses. The allocation of hard currency funds from operations, however, is a prime condition when seeking third party financing for air transport infrastructure.

In order to secure public funds for building and maintaining air transport infrastructure, governments in emerging markets need to develop an Air Transport Masterplan, including long-term financial planning. This Masterplan must be discussed and accepted in parliament, thus creating the basis for allocating necessary funds for air transport infrastructure.

In addition to public funds, many emerging markets benefit from the support of bilateral partners or Multilateral Development Banks (MDB). Bilateral partners may agree to finance necessary air transport infrastructure as a grant or a subsidized loan³. MDB, such as the Inter-American Development Bank, the Asian Development Bank, or the World Bank, may also support infrastructure investments with loans and grants. However, for both types of partners, good governance based on an absolute transparent flow of funds, and on well established procedures, is seen as a precondition.

3. Private participation in public infrastructure

The highest level for the financing air transport infrastructure for most emerging countries is private sector participation. One important reason lies in the fact that a private participation model would include the retention of funds generated by the infrastructure, which is often a condition when seeking financing, especially from sources abroad.

However, private participation in public infrastructure (PPI) often poses a particular challenge for emerging countries. First, the actual traffic data are mostly far lower than for typical PPI projects in the developed world. Second, the credit risk is mostly higher and more difficult to cover. This includes country risk (e.g. political risk), commercial risk (profitability), and recovery risk. Third, many emerging countries have a poor governance structure.

To address the above mentioned challenges, a model for PPI must be developed accommodating several elements. Taking the financing of air navigation services (ANS) as an example, these elements can be grouped into three main phases: (i) creation of an ANS corporation, (ii) implementation of a develop-maintain-operate-transfer concession scheme, and (iii) privatization by sale of the shares of the ANS corporation.

The first phase (the creation of an ANS corporation) aims at establishing an entity that has the responsibility of providing ANS. The creation of an ANS corporation, or “corporatization” of a public service, is an important step for clarifying costs, income, and operational efficiency. Even if such an entity would never enjoy private participation,

³ The Dutch Government has agreed in 2005 to finance necessary improvements of the airport (runway and tarmac) of Dar-es-Salaam, Tanzania. The total package consisted of €52.9 million by a grant (over 50%) and a loan from a Dutch Bank.

the fact that the public service provider has become an entity run on commercial standards has significant advantages. Most important, the ANS corporation will be held accountable to an agreed budget. In addition, it will enjoy an income which is controlled by its operations (even though its profits will have to be disbursed to the state - its shareholder). Finally, if the ANS corporation would be deprived of its operational income, it would not be able to secure basic expenses, such as payroll. Its staff, not being public servants with secured salaries, would immediately put pressure on the authorities in order for the corporation to have sufficient income for paying salaries.

The creation of such a corporation has several elements. It must be done with proper legislation, and the new entity must have financial autonomy. In addition, all necessary existing assets must be transferred to the ANS corporation at market value. For securing financial viability, a financing scheme must be prepared, allowing adequate payments to the government. Finally, the technical personnel of the government who provided ANS in the past must be transferred to the corporation.

The second phase, the implementation of a develop-maintain-operate-transfer concession scheme, aims at partnering with a concessionaire (usually an international ANS operator) who will finance the necessary investments, and who will operate the entire ANS system. To cover operations and maintenance costs, capital costs, and a satisfactory rate of return, the concessionaire would collect user fees and charges. The collection would have to be adequately regulated. At the end of the concession period, all acquired assets would be transferred to the ANS corporation. Technical staff, having been hired and trained by the concessionaire should become permanent staff of the ANS corporation.

In the third phase (the privatization by sale of the shares of the ANS corporation) the government disposes of its asset. This serves two objectives: the recovery of funds needed for other public investments, and the assurance that ANS will continue to be efficiently provided by applying private sector methods and principles.

The major hurdle of the above mentioned scheme concerns the fact that many developing countries have relatively limited traffic or suffer from a poor governance situation. A possible way to address this issue is the securitization of future flow of receivables (e.g. over-flight and approach fees).

A securitization scheme could include the following steps: (i) documentation of future invoicing of fees, (ii) the establishment of a fiduciary trust domiciled in an offshore location, (iii) the sale of the future flow of receivables to the fiduciary trust, (iv) payment instructions to domestic and international carriers to deposit US\$ denominated over-flight and approach fees to the fiduciary trust, (v) collateralized notes from the fiduciary trust with a pledge on the revenues being deposited by the carriers into the agent bank account, (vi) placement of the notes in the international capital markets, and (vii) additional credit enhancement options, such as partial risk guarantees.

Documentation of future invoicing of overflight and approach fees is done by securing long-term service contracts with domestic and international carriers, which are handled by the ANS corporation. For carriers, this represents an opportunity to negotiate certain preferential fees or discounts. For the ANS corporation, it is the first fundamental instrument for securing financing.

The establishment of a fiduciary trust domiciled in an offshore location is another basic element for risk mitigation. Once the sale of the future flow of receivables to the fiduciary trust has occurred, it comforts foreign investors that the income, which the ANS corporation is generating, is sheltered from bad governance or from political risk. This must include payment instructions to and agreement with domestic and international carriers to deposit US\$ denominated over-flight and approach fees to the fiduciary trust (normally via an agent bank).

In order to raise funds in the capital markets, collateralized notes from the fiduciary trust, with a pledge on the revenues being deposited by the carriers into the agent bank account, must be established. These notes can then be placed in the international capital markets.

Finally, additional credit enhancement options, such as partial risk guarantees, can serve to reduce certain risk, such as the political risk (e.g. expropriation and political violence). Such risk mitigation products are available from Multilateral Development Banks, such as the World Bank Group.

Charles E. Schlumberger, Principal Air Transport Specialist, The World Bank

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