Chapter 2

The governance of the NAICM project

As a result of austerity policies, the Government of Mexico, via the Ministry of Finance and Public Credit (Secretaría de Hacienda y Crédito Público, SHCP) decided to leverage on an existing body, specifically a quasi-state entity (entidad paraestatal), to lead the development of the New International Airport of Mexico City (Nuevo Aeropuerto Internacional de la Ciudad de México, NAICM), avoiding the need to create new public institutions. The Government decided to activate the enterprise with majority state participation, Airport Group of Mexico City (Grupo Aeroportuario de la Ciudad de México, S.A. de C.V., GACM), to be in charge of the design, construction, and launching of operations of NAICM. This chapter will analyse the governance of the project in two dimensions: the internal dimension (GACM’s corporate governance) and the external one (the relationships and interactions with stakeholders).
Background of the Grupo Aeroportuario de la Ciudad de México (GACM)

In 1998, different concessions of air terminals to the private sector were carried out in Mexico, as part of the restructuring and disincorporation of the national airports network, which until then had been managed by Airports and Auxiliary Services (Aeropuertos y Servicios Auxiliares, ASA).\(^1\) As a result, four airport groups emerged: Southeast Airport Group, Airport Group of the Pacific, Airport Group Center-North, and GACM. The GACM was formally established as an enterprise with state participation on 28 May 1998, being the unique shareholder the Federal Government, via the Ministry for Communication and Transport (Secretaría de Comunicaciones y Transportes, SCT) and ASA. GACM was, in fact, created as an enterprise to hold shares, but until its appointment as the leader of the NAICM project it had not completed any operation and did not have an organisational structure.

GACM has two subsidiary entities in charge of the management, operations, maintenance, and organisation of airport services, provided in the Benito Juárez International Airport of Mexico City. These entities are International Airport of Mexico City (Aeropuerto Internacional de la Ciudad de México, S.A. de C.V., AICM) and Airport Services of Mexico City (Servicios Aeroportuarios de la Ciudad de México, S.A. de C.V.).

GACM’s vision is to be the entity in charge of co-ordinating and successfully carrying out the integral development of the airport infrastructure of the Mexico Valley, following good international practices in a framework of social and environmental responsibility in order to contribute to Mexico’s sustainable development. Its mission is to undertake the necessary actions to provide the required modern and efficient infrastructure to launch operations of the airport infrastructure of the Mexico Valley, following the principles of legality, transparency, and opportunity, to address the current and future needs of national and international air transport, supporting the economy, the environment, tourism and safety.\(^2\)

GACM corporate governance

The GACM Board is GACM’s governing body. It is responsible for establishing general policies and defining priorities regarding production, productivity, marketing, finance, research, technology development, and management, in line with the Government’s programmes for the transport sector. Likewise, it reviews and approves GACM programmes and budgets, financial statements and its organisational structure.

The GACM Board is led by the Minister of Communications and Transport and is composed of the following officials:

- the Head of the Legal Affairs Unit of SCT, who serves as the Secretariat
- the Head of the Legal Co-ordination for Transport of SCT, who serves as Deputy Secretariat
- the Deputy Minister for Transport (SCT)
- the Deputy Minister for Population, Migration, and Religious Affairs of the Ministry of the Interior (Secretaría de Gobernación, SEGOB)
- the Deputy Minister for Trade and Industry of the Ministry of Economy
the Deputy Minister for Tourism Policy and Planning of the Ministry of Tourism
ASA’s Director General
the Head of the National Agrarian Registry (Registro Agrario Nacional, RAN)
the Director General for Legal Affairs of the RAN
the Director General for Environmental Impacts and Risks of the Ministry of the Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT)
the Director General “B” for Programming and Budgeting of the Ministry of Finance and Public Credit (Secretaría de Hacienda y Crédito Público, SHCP)
the Deputy Director General for Programming and Budgeting for Social Development, Labour, Economy, and Communications of SHCP
the Director General for Planning of the Ministry of Tourism
GACM’s Director General.

GACM’s corporate governance responds to the logic of the governance of public institutions, which prevents it from benefiting from the efficiency gains and operational benefits associated with a more corporatised structure. Indeed, GACM’s corporate governance is not aligned with key issues outlined in the OECD Guidelines on Corporate Governance of State-Owned Enterprises (Box 2.1). Even though GACM is not considered as an enterprise, it issues shares, which are fully owned by Mexico’s Federal Government. The general principle is that when governments conduct financially important projects, they should allocate these undertakings to a state-owned enterprise (SOE) if and only if they seek to benefit from the corporate form. Otherwise it is better left to a public institution.

Box 2.1. The OECD Guidelines on Corporate Governance of State-Owned Enterprises

The OECD Guidelines on Corporate Governance of State-Owned Enterprises are recommendations to governments on how to ensure that SOEs operate efficiently, transparently, and in an accountable manner. They are the internally agreed standard for how governments should exercise the state ownership function to avoid the pitfalls of both passive ownership and excessive state intervention. The guidelines were first developed in 2005 as a complement to the OECD Principles on Corporate Governance. They are being updated to reflect the decade of experience with their implementation and address new issues that have arisen concerning SOEs in the domestic and international context.

The document is divided into two main parts. The guidelines presented in the first part of the document cover the following themes: i) rationales for state ownership; ii) the state’s role as an owner; iii) SOEs in the marketplace; iv) equitable treatment of shareholders and other investors; v) stakeholder relations and responsible business; vi) disclosure and transparency; and vii) the responsibilities of the boards of SOEs. In the second part of the document, the guidelines are supplemented by annotations that are intended to help readers understand their rationale. The annotations also contain descriptions of dominant trends and offer a range of implementation methods and examples that may be useful in making the guidelines operational.

First, there is a possibility to increase the degree for vertical separation of powers in GACM’s relationship with SCT (within GACM and between GACM and the government ownership). It is critical that which type of decision is made at which level is made clear (see Figure 2.1). Policy disagreements should be discussed at a whole-of-government level and, under no circumstances, carried into the boardroom of GACM. If the Government cannot, or will not, grant this degree of autonomy to the board, then the corporate form is not suitable and the Government may opt to establish a more traditional public agency. In other words, an unclear vertical separation of powers increases the risk of bringing inherently political disagreements to be settled in the boardroom, rather than decided at a whole-of-government level and communicated to GACM.

Figure 2.1. Vertical separation of powers


SCT involvement in day-to-day operations of GACM would illustrate the lack of vertical separation. In such a case, the ownership entity validates, for example, communications to be issued by the SOE. *De facto*, the ownership entity makes the important decisions concerning, for example, the procurement and financial strategies of
the SOE. Hence, the SOE does not have the flexibility to make decisions as they do in many OECD countries (see Box 2.2).

### Box 2.2. The evolution of PEMEX’s Board

The Law of PEMEX (*Petróleos Mexicanos*, Mexico’s state-owned oil enterprise), published in the Official Gazette on 11 August 2014, establishes in Article 15 that its board will be composed by the following:

- the Minister of Energy, who presides over the Board, and the Minister of Finance
- three members representing the Federal Government, appointed by the Federal Executive
- five independent members, appointed by the Federal Executive and ratified by the Senate, who will exercise the position on a part-time basis and are not public officials.

Overall, the reform is an improvement in relation to the OECD Guidelines on Corporate Governance of State-Owned Enterprises. The diversification of the board to include independent members is in accordance with internationally recommended good practices. Care must however be taken to ensure the actual independence of the individuals appointed. Previous to this reform, the board was composed of the following:

- six representatives of the state, appointed by the Federal Executive
- five representatives from the Petroleum Workers’ Union, who had to be active members and permanent employees of PEMEX
- four members appointed by the Federal Executive and ratified by the Senate, who represented the State and, in this capacity, were considered as public officials.


A management that lacks clear direction and powers to act, subject to reasonable checks and balances, might lead to a dysfunctional organisation. Good practice would suggest a corporate governance arrangement that is similar to the following:

- Business strategy, operational issues, investment decisions, and procurement would be the responsibility of GACM’s management and its Board.
- Airport policy is managed by SCT as part of an integrated transport policy.
- Sectoral or specific regulatory concerns would be the responsibility of the relevant ministries and government agencies.

Another issue of concern is that the GACM Board does not have the adequate support in terms of internal audit. This could foster distrust between the Board and GACM’s management and invite the Board to micromanage. OECD good practices suggest that SOEs should develop efficient internal audit procedures and establish an internal audit function that is monitored by, and responds directly to, the Board. Currently, there are two main entities involved in the auditing and oversight of GACM, namely the Ministry of Public Administration (*Secretaría de la Función Pública*, SFP) through the Internal...
Control Body (Órgano Interno de Control, OIC) of SCT and the Superior Audit Office (Auditoría Superior de la Federación, ASF), which is the auditing body that oversees all parts of the general government sector, reports to Congress, and is completely independent of GACM and the Executive Branch of Government. These two oversight bodies complement, but should not replace, the internal audit function suggested above and, in fact, neither of the two report to GACM’s board.

Board composition and nomination is also problematic when benchmarked against the OECD Guidelines. As established in the Federal Law for Quasi-state Entities (Ley Federal de las Entidades Paraestatales, LFEP) members of the board of enterprises with majority state participation representing the Federal Public Administration (Administración Pública Federal, APF) are appointed and can be replaced by the President, through the sector leader. LFEP states that these members should always represent more than 50% of the board and they should be public servants or recognised individuals with experience in the corresponding field. In other words, the law does not require that all members representing the APF are public servants, however, in GACM’s case, all board members are indeed public officials. LFEP or its Bylaws do not elaborate on alternative procedures for the President to appoint board members (i.e., nomination committees, pools of qualified candidates, headhunting firms), while OECD good practice suggests that such appointments should be based on competitive and merit-based procedures. This is clearly not the case for GACM and hence there is a risk of politicising the nominations. Furthermore, contrary to good practices in OECD countries, no compulsory or voluntary board training programmes are in place in GACM.

The LFEP Bylaws (Reglamento de la Ley Federal de las Entidades Paraestatales) establish that members of the board should register alternate members in case they cannot participate in board meetings. This is a common practice in Latin America that should be managed with care and restricted to really extreme circumstances since it might prevent the Board from acting as a truly collegial and professional body.

Finally, in another departure from good corporate practices, no evaluation or self-evaluation mechanism exists for the GACM Board.

**GACM organisational structure**

The GACM’s organisational structure was designed with the knowledge that as many functions as possible would be outsourced and in line with principles of austerity and public spending discipline. As it will be mentioned in the assessment section, outsourcing without proper controls can imply serious risks. The organisational structure was revised and approved, as legally required, by both SHCP and SFP.

As illustrated in Figure 2.2, GACM’s organisational structure is led by its Director General and four corporate directors:  

- i) planning, evaluation, and outreach;  
- ii) infrastructure;  
- iii) finance; and  
- iv) administration and real estate management. The structure also includes the establishment of an Internal Control Office (OIC), subordinated to the SFP.
The Director General co-ordinates and executes the necessary measures so that every stage in the development of the airport infrastructure of the Mexico Valley is completed on time and in compliance with the applicable regulatory frameworks, in co-ordination with other entities of the APF and the state and municipal governments concerned.

The Corporate Directorate for Planning, Evaluation, and Outreach is responsible for strategic planning in the development of the airport infrastructure of the Mexico Valley, its evaluation, and following up the actions to be undertaken in every stage of the project to facilitate institutional development, as well as easing co-ordination and engagement between the different GACM areas and with external stakeholders. Likewise, it is responsible for compliance with transparency and freedom of information regulations. It is divided into two sub-directorates: i) planning and evaluation; and ii) outreach.

The Corporate Directorate for Infrastructure is responsible for organising and managing the studies, projects, works, and related services, by preparing terms of reference, managing investment contracts, supervising works, and ensuring an adequate infrastructure for the operation of the airport infrastructure of the Mexico Valley, while ensuring compliance with national and international aeronautic and safety regulations and the approved budgets. It is divided into three sub-directorates: i) projects; ii) control of works; and iii) airport regulations and processes.

The Corporate Directorate for Finance is responsible for planning, defining, and co-ordinating strategies and guidelines for the adequate programming, budgeting, and financial strategy by controlling the budget exercise and accounting of the assigned and spent resources, as well as for identifying, analysing, and proposing mechanisms to obtain...
the necessary resources and funding for the development of the airport infrastructure of the Mexico Valley. It is divided into two sub-directorates: i) finance; and ii) budget.

The Corporate Directorate for Administration and Real Estate Management is responsible for GACM’s legal representation and undertaking the necessary measures to ensure compliance with the applicable regulatory frameworks; leading the planning, integration, direction, and control of human resources, real estate, buildings, and general services; carrying out procurement of public works, acquisitions, and related services; as well as the real estate management strategy. It is divided into three sub-directorates: i) legal; ii) management; and iii) procurement.

Finally, the OIC is responsible for the monitoring and surveillance of the authorised programmes and budgets through prevention measures and verification of operations, as well as for reviewing the systems for internal control and management of financial information to advance a transparent, effective, efficient, modern, and simplified organisation. It is divided into three areas: i) internal audit; ii) management development and improvement; and iii) complaints and responsibilities.

After reviewing the organisational structure, it is evident that there are some functions that are not adequately positioned or are missing. For example, the legal sub-directorate is placed within the Corporate Directorate for Administration and Real Estate Management. This might not only lead to conflicts of interest (i.e. sustaining points of view of its parent directorate vis-à-vis those of the other), but also misrepresents a function that should be transversal and serve the whole organisation. Likewise, there is nothing resembling a Chief Information Officer (CIO) in charge of the information systems and platforms of GACM. Again, this is a transversal function that could very well report directly to the Director General.

Since GACM staff are hired on temporary contracts that have to be renewed every three months, it is advisable to take a close look at the profiles of each professional and assess whether skills, rank, and compensations are coherent with the tasks to be undertaken. For example, for NAICM to be a world-class project, it requires its senior staff to have the skills to understand the implications of such a megaproject (i.e. technical and management skills dealing with finance, project administration, negotiation, leadership) and to communicate the attractiveness and virtues of the project to an international audience (i.e. speaking English and other languages).

The organisational structure also depends on the work of three other actors, working hand-in-hand with GACM: the project manager (PM, a company called Parsons International Limited), the master design architect (a company called Romero-Foster & Partners), and the master civil design engineer (a group of companies integrated by Netherlands Airports Consultants-TADCO and SACMAG). GACM is, vis-à-vis these actors, the owner of the NAICM project and integrates all aspects of it, with the support of the PM. The PM is tasked with developing the programme implementation plan, which is used as the guiding document for execution. It oversees, guides, and manages the master design architect, the master civil design engineer, and other key consultants to make sure objectives and milestones are met. The PM is also responsible for the programme budget, schedule, and overall controls. In fact, it has developed a plan to track all achievements and provide early warnings that pose risks to the project. The project leverages on a Dashboard Control System, which allows for the follow up of progress at any stage, measuring the work done, and identifying critical elements and work to be done, providing warning flags when there are elements that may impact progress. However, as the PM is not part of the Government, it has limited decision-making
powers. The master design architect provides design and architectural services for executive projects that lead to the construction of NAICM, as well as follow up. This includes the architectural projects for the terminal, the control tower, and the parking lots. The master civil design engineer provides the executive projects of design and conceptual engineering for runways, platforms, and navigational support.

Regulatory framework governing GACM

The operations of GACM are governed by a series of regulatory instruments, ranging from the Political Constitution of the United Mexican States (Constitución Política de los Estados Unidos Mexicanos, hereinafter the Constitution) to guidelines and manuals issued by GACM itself.

The Constitution, in its Article 90, establishes that the APF is divided into central and quasi-state (paraestatal), according to the Organic Law of the APF, which elaborates on how the administrative functions are allocated in the different ministries and defines the criteria to establish quasi-state entities and determine the intervention of the Executive in their operations. The Organic Law of the APF, in its Article 46, defines as enterprises with majority state participation those in which the Federal Government or one or more quasi-state entities, jointly or separately, hold more than 50% of the social capital and/or those for which the Federal Government has the power to appoint most of the members of the board and/or its President or General Director. Both conditions are met in the case of the GACM, since the Federal Government, via SCT, holds 99.999% of the shares and ASA holds 0.001%.

Likewise, according to the Organic Law of the APF, the President will group the quasi-state public administration by sector, bearing in mind the objectives of each entity. Consequently, the GACM is grouped in the transport sector, which is led by SCT. Sector leaders co-ordinate the programming and budgeting of the entities under their umbrellas, have the duty to know their operations, evaluate their results, and participate in their boards.

The LFEP also elaborates on the mandates of Article 90 of the Constitution. Its objective is to regulate the organisation, functioning, and control of quasi-state entities. Chapter III refers specifically to the governance of enterprises with majority state participation. For example, it dictates how the members of the board are appointed (i.e. by the President through the sector leader, in the GACM case, SCT), how frequently the board should meet (at least four times per year) and the powers granted to general directors.

In addition to these primary regulations, GACM has issued the main secondary rules and guidelines that govern its organisation and functions, including the following:

- **Organisation Manual**: It establishes the functions and attributions of the different administrative units of GACM.
- **Salary scales**: This document defines the salaries and compensations of GACM personnel.
- **Policies and guidelines regarding public works and related services** ([Políticas, bases y lineamientos en materia de Obras Públicas y Servicios Relacionados con las Mismas, POBALINES] public works): This piece regulates the acts and procedures for planning, budgeting, hiring, executing, following up, and
controlling public works and related services, as well as the units and officials responsible for undertaking these activities.

- **Procedures manual for planning, contracting, and executing public works and related services**: It regulates specific details concerning the public works annual plan and procedures for open tendering, invitation to at least three suppliers by exception, direct adjudications by exception, invitation to at least three suppliers by amount, direct adjudication by amount, and contract management.

- **Manual for the integration and functioning of the Committee on Public Works and Related Services**: This manual provides the normative framework for the composition, operations, and functions of the Committee on Public Works and Related Services of GACM, as well as the responsibilities of its members, in line with Article 25 of the Law on Public Works and Related Services.

- **Policies and guidelines regarding acquisitions, leasing, and services (POBALINES acquisitions)**: This piece regulates the acts and procedures for acquisitions, leasing, and other services, as well as the units and officials responsible for undertaking these activities.

- **Procedures manual for planning, contracting, and managing acquisitions, leasing, and services**: It regulates specific details concerning the acquisitions, leasing, and services annual plan, the preparation of calls for tender, and procedures for open tendering, invitation to at least three suppliers by exception, direct adjudications by exception, invitation to at least three suppliers by amount, direct adjudication by amount, and contract management.

- **Manual for the integration and functioning of the Committee on Acquisitions, Leasing, and Services of the Public Sector**: This manual provides the normative framework for the composition, operations, and functions of the Committee on Acquisitions, Leasing, and Services of GACM, as well as the responsibilities of its members, in line with Article 22 of the Law on Acquisitions, Leasing, and Services of the Public Sector.

- **Budgeting administrative procedures manual**: It regulates the procedures for programming and budgeting, spending and control, and accountability mechanisms.

- **Budgeting administrative procedures policies**: It establishes policies for the management of the revolving fund, obtaining and justifying travel expenses, remunerations corresponding to Chapter 1000 of the national budget, procedures to request payments for the acquisition of goods and services and the contracting of public works and related services, and contributions to funds, mandates, and similar contracts.

- **Procedures manual to elaborate, evaluate, and update the strategic plan.**

- **Operational guidelines for the revolving fund**: This regulation establishes criteria and measures for the management of the revolving fund, aiming at providing certainty to the public officials in charge of it.

- **Guidelines for obtaining and using services cards for expenses incurred in national and international travel.**

Table 2.1 sets out the regulatory framework applicable to the governing of GACM.
## Table 2.1. Regulatory framework applicable to the governing of GACM

<table>
<thead>
<tr>
<th>Government-wide regulations</th>
<th>GACM-specific regulations</th>
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<tbody>
<tr>
<td><strong>On general governance:</strong></td>
<td><strong>On general governance:</strong></td>
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<tr>
<td>• Constitution (Article 90)</td>
<td>• Organisation Manual</td>
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<tr>
<td>• Organic Law of the AP.</td>
<td>• Salary scales</td>
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<tr>
<td>• Federal Law for Quasi-State Entities</td>
<td>• Budgeting administrative procedures manual</td>
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<td></td>
<td>• Budgeting administrative procedures policies</td>
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<td>• Operational guidelines for the revolving fund</td>
</tr>
<tr>
<td></td>
<td>• Guidelines for obtaining and using services cards for expenses incurred in national and international travel.</td>
</tr>
<tr>
<td><strong>On procurement:</strong></td>
<td><strong>On procurement:</strong></td>
</tr>
<tr>
<td>• Law on acquisitions, leasing, and services of the public sector</td>
<td>• POBALINES Public works</td>
</tr>
<tr>
<td>• Bylaws (Reglamento) of the Law on acquisitions, leasing and services of the public sector</td>
<td>• Procedures manual for planning, contracting, and executing public works and related services</td>
</tr>
<tr>
<td>• Law on public works and related services</td>
<td>• Manual for the integration and functioning of the Committee on public works and related services</td>
</tr>
<tr>
<td>• Bylaws (Reglamento) of the Law on public works and related services</td>
<td>• POBALINES Acquisitions</td>
</tr>
<tr>
<td></td>
<td>• Procedures manual for planning, contracting, and managing acquisitions, leasing, and services</td>
</tr>
<tr>
<td></td>
<td>• Manual for the integration and functioning of the committee on acquisitions, leasing, and services of the public sector.</td>
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</table>

**Source:** Author’s own work with information provided by GACM.

The regulatory framework governing GACM resembles that of other quasi-state entities and therefore includes rules that are common to find in Mexico’s APF. Hence, one important challenge is to adapt the framework to the needs of a megaproject. This is particularly relevant for the regulations dealing with procurement. But it is also true for others to allow the incorporation of good international practices concerning, for example, corporate governance.

Another challenging dilemma is preventing wrongdoing and guaranteeing integrity while keeping structures flexible and simple. This is not an easy balance to strike. The issuance of GACM specific rules could provide certainty but it is important to communicate about such regulations among staff and provide support and training for their interpretation and implementation, particularly for those rules recently approved, such as POBALINES. Indeed, other entities in Mexico’s government (i.e. the State’s Employees’ Social Security and Social Services Institute, ISSSTE) have reported benefits from the issuance of detailed and consolidated regulations. It will be important in the future that the issuance of GACM specific regulations or their reforms be accompanied by consultation to GACM officials in order to address common situations faced by them. Consultation would provide information to determine practicability and to design compliance strategies. This is a widely applied practice in OECD countries.¹⁰

### Governance and co-ordination with other government entities

The stakeholders of NAICM, influencing the external dimension of the governance of the project, can be classified into three groups: i) government institutions directly linked to NAICM; ii) airport users; and iii) the wider public.
A project the magnitude of NAICM has multiple implications and impacts requiring the co-ordinated action of different public institutions and several levels of government (see Figure 2.3 for a mapping of the government institutions involved).

Figure 2.3. Mapping of the government institutions involved in the development of NAICM


The following five impacts require the co-ordinated action of the different public institutions and several levels of the Mexican Government:

1. **Environmental:** Pollution and noise will be generated not only during the construction phase, but also once NAICM is operational. As recommended in the resolution to the Environmental Impact Statement, issued by SEMARNAT, mitigation measures have been anticipated in order to address potential impacts to fauna and flora that have their habitats in the airport site and its surroundings. Furthermore, the airport and the businesses and neighbourhoods that will follow its construction and operation will require water, which calls for investments that are being co-ordinated by the National Water Commission (CONAGUA).

The NAICM project is addressing these concerns with plans to rescue an ecologically degraded zone by developing green areas, particularly the Metropolitan Forest, which will comprise 670 hectares and become the region’s main lung. In addition, 5,000 hectares will be reforested within the Valley of...
Mexico. The Environmental Master Plan (co-ordinated by SEMARNAT) set ambitious goals for NAICM, such as obtaining the LEED certification, being the first non-European airport to operate with a neutral carbon fingerprint, and using 100% of its energy from clean local sources. In this regard, the plans include the construction of a plant of biogas and taking advantage of solar intake conditions, which are much better than those of other airports (5.1 KWh/m² per day for NAICM versus 3.8 for Chicago O’Hare, 3.7 for Indianapolis, and 3.5 for Kasai-Osaka). Likewise, the Hydraulic Master Plan (co-ordinated by CONAGUA) anticipates the development of the biggest water body of the Metropolitan Area with more than 2 700 hectares and 300 hectares devoted for aquatic birds. In summary, GACM will launch a series of more than 20 measures and programmes to address the issues raised in the resolution to the Environmental Impact Assessment and put forward a deposit for MXN 770 million as a guarantee to comply with such measures.

2. Social: During the 2000-06 administration, social unrest was strong enough to question the need for a new airport and block its construction. The movement was led by inhabitants of the municipality of Atenco, State of Mexico, who did not agree to the terms proposed to sell their lands for the project. The situation is different now as NAICM will be constructed on land that is property of the Federal Government and that public opinion is vastly in favour of it, despite the fact that there are still minority political and social movements in disagreement with its construction. On the side of social benefits, for example, the project will trigger works for hydraulic solutions, by increasing three times, up to 38 million cubic meters, water regulation capacity, which should help reduce risks of flooding. In 2010, 585 schools in the State of Mexico and 120 in the Federal District were temporarily closed as a result of flooding.

NAICM will mainly impact the eastern side of Mexico City, including three of its delegations and 11 municipalities of the State of Mexico. The East Zone has significantly lower standards of living relative to the metropolitan area of Mexico City (see Table 2.2). The NAICM is seen as an opportunity to raise the standards of living in the East Zone.

Table 2.2. Standard of living in the East Zone vs. the metropolitan area of Mexico City (2010)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>East Zone</th>
<th>Metropolitan area of Mexico City</th>
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<tbody>
<tr>
<td>Economically active population with income below two times the minimum salary</td>
<td>33%</td>
<td>22%</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>5.1%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Informality rate</td>
<td>45%</td>
<td>41%</td>
</tr>
<tr>
<td>Population below the poverty line</td>
<td>39%</td>
<td>34%</td>
</tr>
<tr>
<td>Average school years</td>
<td>9.6</td>
<td>10</td>
</tr>
</tbody>
</table>


Indeed, this might be one of the main reasons why public opinion polls show strong and steady support for the project. In a poll commissioned by GACM carried out in the Federal District, 57% of respondents were in favour of the NAICM project in late August 2014 and 60% in early September 2015. Those claiming to be against were 18% at both periods. Likewise, a poll carried out in the central region of the country, and particularly the State of Mexico, reported 56% and 62% in favour and 14% against, respectively. The conclusion of strong
support towards the project is consistent with another poll carried out by El Universal newspaper, in which 65% of those surveyed approved the construction of NAICM and 18% disapproved.

3. Economic: Competitiveness, investment, and jobs are some of the main benefits justifying the construction of NAICM. During the construction phase, for example, the NAICM will create 160 000 jobs. Currently, for example, the ministries of Labour and Social Development are implementing a Plan of Action with Direct Impact, which includes a temporary work programme and a data collection programme, benefiting 800 inhabitants of Atenco and Texcoco. In its ultimate development phase, the NAICM will have six runways and will transport 120 million passengers annually, four times the current capacity of the Benito Juárez International Airport of Mexico City.

4. Mobility: The NAICM will require transport means to make it accessible, not only for the air travellers themselves, but also for the people working on site and the businesses operating in the vicinity to the airport. Roads connecting to the airport, metro, bus lines, and some other transport options are being considered to facilitate mobility to and from the airport. Access is also necessary for the construction phase in order to allow the materials and equipment to get to the construction site. Such challenges will require co-ordination, for example, with the authorities of the State of Mexico and the Federal District, as well as those of their municipalities and delegations.

5. Urban development: The NAICM project will give birth to a new centre of economic and social activity. However, this does not come without risks and challenges. The three levels of government need to be co-ordinated to ensure an adequate supply of services, such as schools, hospitals, cultural and recreation centres, and public spaces. State and local governments will have to incorporate new dynamics into their urban development plans or, for those municipalities that do not even have one or when it is clearly outdated, new plans will have to be conceived.

The government institutions directly linked to NAICM participate in the project in order to support the construction and/or anticipate the necessary needs to carry out their duties. This is the case, for example, of control and surveillance institutions, such as the Customs Office, which reports to the Revenue Service (Servicio de Administración Tributaria, SAT); the National Immigration Institute (Instituto Nacional de Migración, INM), which reports to the Ministry of the Interior (SEGOB); the National Service for Vegetal and Animal Health (Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria, SENASICA), which reports to the Ministry of Agriculture, Livestock, Rural Development, Fishing, and Food (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación, SAGARPA); and police bodies such as the General Attorney’s Office (Procuraduría General de la República, PGR) and the Federal Police. Likewise, the military, via the Ministry of National Defence (Secretaría de la Defensa Nacional, SEDENA) is working on the project as it will use one of the runways for military purposes. Budget and fiscal control institutions, such as the Ministry of Public Administration (Secretaría de la Función Pública, SFP) and the Superior Audit of the Federation (Auditoría Superior de la Federación, ASF) are also engaged to exercise their surveillance and audit powers.

Co-ordination seems to be working well, at least concerning the federal institutions. There is a high-level group that gathers the heads of the main federal ministries taking
part in NAICM. This group incorporates the participation of the governments of the State of Mexico and the Federal District. This has been a good mechanism to co-ordinate high-level decisions. However, the OECD team has heard about cases of information asymmetries, which should be addressed to avoid duplication, overlaps, or even contradictory measures. For example, the Ministry of Rural, Territorial, and Urban Development (Secretaría de Desarrollo Agrario, Territorial y Urbano, SEDATU) has developed several studies on the urban impact of the NAICM. These studies could be shared with GACM to benefit from its input. It might be the case that while the high-level group ensures strategic co-ordination, there might still remain gaps at the technical level.

Within the group of public institutions, state and municipal governments also play an important role. In meetings with government entities of Mexico City and its delegations (April, July, and August 2015), they expressed having limited information on the plans to advance mobility and implications for urban planning. This might be particularly important for municipalities, as their capacities to collect and analyse information are limited and may have to rely on data provided by the Federal Government. While sensitive issues discussions (i.e. land use and commercial plans) might be kept to a small group of officials to avoid speculation, it is also true that good international practices suggest that urban and mobility planning, for example, are anticipated before the actual approval of megaprojects, such as an airport.

Mention should also be made of co-ordination with autonomous entities, particularly the National Institute for Freedom of Information (Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos, INAI) and the National Economic Competition Commission (Comisión Federal de Competencia Económica, COFECE). Late in 2014, GACM expressed its intention to sign agreements with these two institutions. The objective of the agreement with INAI was to advance a pro-active strategy for transparency and access to information, as well as have INAI advise GACM on building a web portal to maximise transparency. Likewise, the agreement with COFECE would aim to provide advice to GACM concerning market studies and prevention of bid rigging, in line with the mandate of the Federal Law on Economic Competition. As of April 2015, very little had been done to establish an agreement with COFECE. On the contrary, INAI and SCT agreed upon a programme to guarantee the transparency and informative disclosure of the infrastructure project known as New International Airport of Mexico City (Programa para garantizar la transparencia y apertura informativa del proyecto de infraestructura conocido como “Nuevo Aeropuerto Internacional de la Ciudad de México) (Box 2.3).

Decisions are typically made at multiple levels, however, there are strategic and operational decisions that will be vetted and discussed as part of the programme objectives. In terms of the approval process, the programme will implement technical committees to approve challenging proposals/recommendations concerning the technical aspects of design. In addition, GACM will form a review committee that will analyse all contract documents for compliance with the normative framework and due diligence. A number of authorities of the Federal Government participate in the typical approval process of the design and construction phases, such as SCT, the Civil Aeronautics General Directorate (Dirección General de Aeronáutica Civil, DGAC), and the bureau of Navigational Services in Mexico’s Aerial Space (Servicios a la Navegación en el Espacio Aéreo Mexicano, SENEAM).
Box 2.3. **The programme to guarantee the transparency and informative disclosure of the NAICM infrastructure project**

The objective of the programme is to create the conditions for transparency and accountability to be a transversal policy that contributes to informed citizens, who participate in the initiatives carried out by the authorities in the development of NAICM in order for the project to have credibility among Mexico’s society and the international community.

Among others, the specific actions to be undertaken to fulfil the objective of the programme are the following:

- complying with all the resolutions of INAI’s Board related to challenges regarding the negative to disclose NAICM information
- training public officials and citizens
- developing the one-stop portal to access information concerning NAICM
- implementing a control board of requests for information
- organising academic events on transparency, freedom of information, and accountability
- implementing the model for archives management developed by the Network for Transparency and Freedom of Information of Latin America (*Red de Transparencia y Acceso a la Información Pública*, RTA).

*Source*: Information provided by GACM.

Financial strategy decisions are formally taken at the GACM Board of Directors and executed by GACM’s General Director or the person specifically appointed by him. The General Director shall inform the Board of Directors of all actions executed by such authorisation. As a practical example, as part of the process of executing the first stage of the financing plan for NAICM, consisting on a loan for up to USD 1 billion granted to the development bank *Nacional Financiera* (NAFIN) Trust, AICM and GACM had to obtain the following authorisations and confirmations:

- authorisation from SCT, DGAC, and COFECE, with respect to granting the concession to GACM for the construction and operation of NAICM
- authorisation from the Deputy Ministry of Transport (*Subsecretaría de Transporte*, SST), with respect to the absolute assignment by AICM and GACM of the Airport Departure Tax (*Tarifa de Uso de Aeropuerto*, TUA) collection rights to the NAFIN Trust
- confirmation by the SAT, with respect to the tax regime applicable to AICM and GACM
- authorisation from AICM and GACM shareholders and Board of Directors to assign TUA collection rights to the NAFIN Trust.
Stakeholder engagement

In addition to the co-ordination with multiple public entities and the different levels of government, the governance of NAICM calls for systematic stakeholder engagement. Risk assessment and management, for example, should involve civil society and take advantage of its expertise (OECD, 2014). This is a key element in facilitating the sustainability of the project and mega-infrastructure projects generally speaking. New airports in particular are often accompanied by controversy and opposition (Alberts, Bowen, Jr. and Cidell, 2009) (Box 2.4). In other words, “megaprojects often come draped in a politics of mistrust” (OECD, 2014).

Box 2.4. Challenges in the development of the Berlin-Brandenburg International Airport (BBI)

After German reunification the two most affected federal states—the city of Berlin and Brandenburg—and the Federal Government created the Berlin-Brandenburg Airport Holding. This placed Berlin’s three airports under a joint administration for the first time. Even more importantly, the holding was created to co-ordinate and facilitate the planning of BBI.

The year 1996 promised to be a breakthrough as politicians finally agreed on a location for BBI. Federal Minister of Transportation, Berlin’s Mayor, and Brandenburg’s Premier reached a consensus decision to build the new international airport in Schönefeld with private investments. Tempelhof would be closed as soon as possible, and Tegel would cease operating as soon as BBI opened. After these plans were made public, the airlines serving Tempelhof immediately stated that they would not move from Tempelhof to Schönefeld. A move to Tegel, however, was impossible because the airport could not handle any more passengers due to the terminal’s circular outline.

Once there was consensus that BBI would be built in Schönefeld, the draft plan was presented to the public for comment. In total, citizens filed more than 132 000 complaints against the expansion of Schönefeld, focusing on noise pollution, the expected decline in property values, and the impact on the ground transportation infrastructure. According to German planning law, hearings have to be organised to listen and respond to all the complaints brought forward by citizens. The sheer volume (approximately 4 000 separate arguments) meant that the beginning of construction of the airport (scheduled for 2003) was delayed. At the same time as the hearings were taking place, a new Federal Government initiative reduced permissible noise levels around airports. These stricter regulations meant that BBI could not be operated late at night and that a significant amount of money had to be budgeted to provide citizens with mandatory noise insulation. Since the noise evaluation had been done based on the previous regulations, it was questionable whether it was still valid.

The debate concerning the financing of BBI also went on. According to the consensus decision, private investors should pay for the airport. After several potential investors dropped out early in the process, two serious contenders remained—Hochtief (an international construction services provider with experience in numerous large infrastructure projects) and IVG (one of the largest real estate companies in Europe). In 2000, Hochtief was excluded from consideration because of charges that it had obtained an unfair advantage in the competitive bid. However, just months later the regional court in Brandenburg overruled the decision and said that Hochtief should be allowed to bid. Rather than restarting the entire privatisation procedure again with IVG and Hochtief as competitors, a consensus was reached that the two companies should co-operate on the airport project. It appeared as if the privatisation issue was solved. However, in 2001, the consortium of the two companies made its offer, which was significantly lower than expected: DM 50 million, rather than the DM 650 million first offered by Hochtief and the DM 350 million originally promised by the IVG. After additional negotiations and extended deadlines this amount was increased to DM 70 million. This unacceptably low offer ended all hopes for privatisation.
Box 2.4. Challenges in the development of the Berlin-Brandenburg International Airport (BBI) (continued)

Assuming that the investors were hesitant because of the large risk involved in building BBI—after all there was a possibility that lawsuits would stop the entire project— the Airport Holding now considered building the airport with government loans and privatising it once it was fully operational. By 2003, the estimated cost for the airport alone was EUR 1.7 billion. Additional funds would be needed to connect it to the highway and rail system and pay for noise protection measures and environmental clean-up at the site. Berlin and Brandenburg were heavily indebted, so they needed the help of the Federal Government to build BBI.

While these controversies were based on the assumption that BBI would be built in Schönefeld, a variety of different parties continued to argue in favour of other locations including Spreeberg, other Brandenburg sites, and even a military airfield in Poland. The lack of consensus was hardly resolved when, in 2004, the results of the hearings were made public. The 1 200-page document imposed strict limitations on night flights in Schönefeld and mandated that 42 000 people were entitled to receive noise-proof windows. Immediately, citizens started to compile a list of points against BBI for a lawsuit at the upper court in Leipzig. The lawyers representing the citizens were positive that the ten-point list addressing issues such as noise, pollution and other environmental hazards, and safety concerns would stop the project—in their opinion every single point would be enough to convince the judge. However, the supporters of BBI were equally convinced that they would receive permission to build the airport. In April 2005, the Federal Administrative Court (Bundesverwaltungsgericht) stopped the construction until a final decision could be reached, a step never before taken in Germany in the planning phase of a large infrastructure project. However, the airport opponents celebrated their victory prematurely: in March 2006, the court announced its final decision that the airport could be built in Schönefeld.


The second group of stakeholders to consider is airport users. Although their interests comprise a diverse set of elements, the common denominator is that they benefit from an efficient and effective operation of NAICM. Some of the main actors in this group include the following:

- **Passengers:** 34.2 million in 2014, who struggle with saturation problems in the current Benito Juárez International Airport of Mexico City. Estimates indicate that passengers in NAICM will reach 125 million, with an average of 342 465 per day, at its maximum development.17

- **Airlines:** Currently, 6 national airlines and 14 foreign ones serve passengers, while 34 are in the freight business.

- **Service providers:** Air side (baggage handling, catering, plane loading and unloading, cleaning, fuelling, airplane maintenance, etc.) and land side (taxis, buses, rent-a-car companies, etc.).

- **Freight area services:** Customs brokers, freight transport, fiscal warehouses, etc. About 14 000 workers are included in this group.

- **Employees:** Currently at 25 000. Unions and professional associations, such as the Pilots Association (Colegio de Pilotos), are also part of this group.
• **Businesses to be hosted in the airport terminals and their surroundings:** These include hotels, restaurants, duty-free shops, business parks, and various types of stores and businesses.

• **Investors:** Mainly banking institutions providing financing for the project.

This group of airport users, with the exceptions of businesses and employees, has been consulted extensively and continuously in order to align the design of the airport to the operative criteria of future users and make NAICM more attractive as a regional hub for airlines and passengers. The consultation process collected the technical, functional, and operative requirements of the 60 main users of NAICM (see Table 2.3 for examples), which are being considered in the design of the terminal, runways, and other facilities. CANAERO and IATA, for example, were consulted specifically on customs and migration issues.

<table>
<thead>
<tr>
<th>20 airlines</th>
<th>15 government institutions</th>
<th>Service providers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeroméxico</td>
<td>Customs</td>
<td>Mexico’s Postal Service</td>
<td>CANAERO (Air transport National Chamber)</td>
</tr>
<tr>
<td>Interjet</td>
<td>National Migration Institute</td>
<td>Aerocharter</td>
<td>IATA (International Air Transport Association)</td>
</tr>
<tr>
<td>Volaris</td>
<td>SENASICA</td>
<td>AGN</td>
<td>Pilots Association</td>
</tr>
<tr>
<td>VivaAerobus</td>
<td>CISEN (Intelligence and National Security Centre)</td>
<td>Menzies</td>
<td>Aeronautics Engineers Association</td>
</tr>
<tr>
<td>United</td>
<td>Federal Police</td>
<td>Globalia</td>
<td>Air Traffic Controllers Association</td>
</tr>
<tr>
<td>American</td>
<td>PGR</td>
<td>AMACARGA (Mexico’s Association of Freight Agents)</td>
<td></td>
</tr>
<tr>
<td>Delta</td>
<td>PROFEPA (Federal Attorney for Environmental Protection)</td>
<td>ANAFAC (Fiscal Warehouses National Association)</td>
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<tr>
<td>Magnicharter</td>
<td>SEDENA / Air Force</td>
<td>AAADAM (Association of Customs Brokers of Mexico City Airport)</td>
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</tr>
<tr>
<td>Aeromar</td>
<td>SEMAR (Ministry of the Navy)</td>
<td>CAAAREM (Mexico’s Confederation of Customs Brokers Associations)</td>
<td></td>
</tr>
<tr>
<td>Copa Airlines</td>
<td>EMP (Presidential Bodyguards Unit)</td>
<td>CANAPAT (National Chamber of Auto transports for Passengers and Tourism)</td>
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</tr>
<tr>
<td>Iberia</td>
<td>Ministry of Health</td>
<td>ASA</td>
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<tr>
<td>Lufthansa</td>
<td>Ministry of Foreign Affairs</td>
<td>Helicopter operators</td>
<td></td>
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<tr>
<td>Avianca</td>
<td>Ministry of Economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others: Freight and courier</td>
<td>Ministry of Tourism</td>
<td></td>
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</tbody>
</table>

*Source: Author’s own work with information provided by GACM.*

Consultation with these actors is thought of as an ongoing process divided into three stages:

- **October 2014-June 2015:** It comprised 188 meetings to present the project to users and collect information regarding their operative requirements.

- **September 2015-March 2016:** It aims to incorporate specific requirements into the airport’s design and business plan. Such requirements include dedicated areas, counter distribution, location of boarding gates, and remote gates, among others. For example, during this stage there will be talks with CANAERO and IATA to
analyse the procedures concerning customs, migration, and health, in order to review the regulatory framework to simplify them.

- **March 2016-Start of operations:** It aims to develop protocols to establish operation procedures for users. It implies a continuous follow-up process to validate different airport features.

The consultation carried out during the first stage was useful to validate the required capacity for the terminal, according to the operations anticipated by airlines, and the development phases for the other facilities; take measures to facilitate a functional and efficient operation for baggage and passengers; update forecasts regarding expansion plans of the airlines; and anticipate connectivity needs.

The third group of stakeholders is the wider public, which comprises a diverse set of communities, including the following:

- **Inhabitants of the area surrounding NAICM:** Their main interests are to preserve their assets and quality of life, including factors such as land value, the preservation of the environment, pollution (air and noise), access to their neighbourhoods, public safety, and economic opportunities. There are also political groups among the inhabitants who have interests in advocating in favour or against the construction of NAICM, but as mentioned before, those against are a minority.

- **Non-governmental organisations (NGOs)/academia:** Organisations in this group usually work around specific themes, such as the environment, mobility, competitiveness, transparency, and so on. Given their expertise, they can provide valuable analyses and information for the development of NAICM. In fact, in some cases, they have been hired by NAICM to perform specific studies. This is the case, for example, of the Engineering Institute of the National Autonomous University (Instituto de Ingeniería de la UNAM, II-UNAM). This group also includes, for example, the Mexican Academy of Engineering, the Environmental Law Mexican Centre (Centro Mexicano de Derecho Ambiental, CEMDA), and Mexico’s Competitiveness Institute (Instituto Mexicano para la Competitividad, IMCO). Likewise, academic institutions such as the University Programme on the Environment and the Ecology Institute of UNAM, the Environmental Engineers Board (Colegio de Ingenieros Ambientales de México, CINAM), the Autonomous University of Mexico (UAM), and the Autonomous University of the State of Mexico (UAEM), were consulted on an honorary basis on mitigation measures of social impacts, planning, and public policies.

- **Businesses and business chambers:** Their interest is obviously economic; not only in terms of direct contracts, they can obtain work in the NAICM project, but also related to the economic dynamism the region would gain as a result of the construction and eventual operation of NAICM. This group includes, for example, the Mexican Chamber of the Construction Industry (Cámara Mexicana de la Industria de la Construcción, CMIC).

There are many other and more disperse social groups, but the ones referenced above are those with the highest stake in NAICM.

The social consultation and engagement process has been prudent, as it was influenced by the previous experience in which the new airport project was cancelled as a result of social opposition. The social consultation strategy has been based mainly on
individual and group meetings, with the participation of GACM. Group meetings are used to communicate relevant information to interest groups. These can be focused on specific chambers or associations or general for a wider public. Individual meetings aim at collecting feedback and identifying specific needs of individual entities or enterprises, as well as at answering questions. Some examples include GACM participation in the CANAERO Freight Committee to feed the planning process of the freight terminal and an informative public meeting dealing with environmental issues, which gathered around 580 participants including inhabitants of the areas surrounding NAICM, academics, and representatives of social groups. During the event, there were 21 interventions/presentations and more than 50 questions were asked about the potential environmental impact of NAICM. GACM also plans to organise “roadshows” in the near future to communicate strategic elements, such as the packaging strategy for procurement.19

Despite the previous initiatives, social consultation has not been as extensive as that carried out with airport users. GACM developed a strategy to comply with the Equator Principles, particularly Principle 5 on social consultation, but the strategy still needs to be rolled out.20 The main exceptions to are the consultation on the Environmental Impact Assessment (Box 2.5), the advice requested from academic institutions, and the establishment of a website with an email address for complaints and suggestions. However, the strategy anticipates informative meetings, focus groups, community workshops, and fora, among others.

### Box 2.5. Environmental mitigation measures

Compliance with the Equator Principles concerning environmental issues is linked to fulfilling the mitigation measures recommended in the resolution to the Environmental Impact Assessment. The following actions have already been undertaken:

- MXN 11.2 million were deposited to Mexico’s Forests Fund to ensure reforestation initiatives.
- A compliance guarantee for environmental compensation for approximately MXN 770 million was contracted.
- More than 20 plans and programmes were developed and delivered on time to address the conditions established in the resolution to the Environmental Impact Assessment.
- A Committee for Environmental Surveillance was created.
- An Environmental Comptroller was hired to comply with Condition 10 of the resolution to the Environmental Impact Assessment.


In addition to those engagement plans led by GACM, specific NGOs have mobilised to provide feedback and oversight to the NAICM project. A notable example is that of the National Citizen Observatory of NAICM (Observatorio Nacional Ciudadano, ONC), organised by IMCO, CEMDA, and CTS Embarq Mexico. The ONC aims at being an open and transparent forum to make sure that NAICM maximises the economic, social,
and environmental well-being in Mexico and to assess government policies and proposals regarding the project. To this end, the ONC organised a series of fora concerning environmental, competitiveness, urban development and mobility, and social inclusiveness issues in November-December 2014. In April 2015, the ONC presented a report with the conclusions of the fora (IMCO et al., 2015) (Box 2.6). GACM reacted by offering a reply to the report and establishing working groups to address the concerns expressed by the ONC.

### Box 2.6. Conclusions of the report by the National Citizen Observatory (Observatorio Nacional Ciudadano, ONC)

The ONC report acknowledges the need for a new airport but highlights that, if not managed properly, the project may lead to important and long-lasting negative consequences. Hence, the need for the NAICM project to be part of an integral development strategy for the city and the country, anticipating direct and indirect effects on the economy, the environment, and society in general. ONC calls for transparency not only related to the main features of the project, but also its decision-making processes. Recommendations to the Government include the following:

- **Environment**
  - providing access to all the studies carried out to define mitigation measures to address environmental impacts
  - establishing an air quality monitoring system from the construction phases of NAICM
  - promoting an integral management system for water resources.

- **Competitiveness**
  - preparing a contingency plan for financing the NAICM considering different scenarios and funding alternatives
  - engaging COFECE in the oversight of strategic procurement procedures
  - establishing mechanisms to disclose conflict of interests of decision makers.

- **Urban development and mobility**
  - developing an urban development and environmental plan incorporating a regional and megalopolis approach
  - developing an integral mobility programme providing alternatives to connect NAICM with the metropolitan area of Mexico City and neighbouring cities
  - establishing collective public transport systems (“shuttle” type) to the areas of departure and final destination of passengers, with little stations connected strategically to the public transport networks.

- **Social inclusiveness**
  - developing a communications strategy to keep informed the inhabitants of the area where NAICM will be constructed about the main positive and negative impacts
Proposals for action

1. The governance model of the project needs to be strengthened to allow timely decision making, accountability, and inclusiveness, as well as to effectively allocate risks

Governance is an element that runs through the veins of all aspects of successful project delivery. According to the UK Office of Government Commerce (OGC) five out of the eight causes of project failure identified in 2005 were attributable to weak governance. In contrast, OGC found that seven out of the ten common causes of confidence identified in 2010 were attributable to good governance. Similarly, PwC’s 2012 Global Study on Project Management Trends identified that weak governance was the main contributor to project failure. Likewise, the Infrastructure UK Cost Review Report 2010 and the UK National Audit Office’s Guide to Initiating Successful Projects stress the importance of good governance by highlighting the need for a greater focus on the early stages of projects to ensure that they are set up to succeed, establishing the right delivery environment and capability to match the complexity of the project (Infrastructure UK, HM Treasury and Lord Deighton, 2014) (Box 2.7).

Weak governance at each stage of the preparation of construction projects for public investment can result in mismanagement and a risk of corruption and delays. Accordingly, a key to protecting investment in publicly funded construction is to strengthen governance. Since corruption can thrive where governance is weak, strengthening governance processes throughout the project cycle should lessen the opportunities for misbehaviour (Wells, 2015).

As the GACM risk matrix recognises, its organisational structure is not adequate for such a megaproject as NAICM. There are gaps in the definition of responsibilities among corporate directorates, including decision making. For example, no one is responsible for following up the mitigation measures mandated by the Environmental Impact Assessment and there have been delays in contract payments due to uncertainty on the procedures to follow. These delays could become a major problem once the pace of the works accelerates, not only to the credibility of the project and its timely progress, but this can also be a source of corruption (since contractors may then be tempted to pay bribes to secure their payments). If unresolved, slow decision making will likely end up consuming management time, leading to project delays.
Box 2.7. Characteristics of good governance of infrastructure projects according to the United Kingdom’s HM Treasury

For infrastructure projects, good governance is about a balance between the natural desire of the sponsor to retain control and the need for the delivery team to have sufficient freedom to allow it to manage the risk to meet the project objectives. It is characterised by the following features:

- A clear statement of the objectives and parameters for delivery between the sponsor and the execution team, including arrangements for remedy in the event of difficulty.
- The project being sufficiently autonomous with a single controlling mind.
- A clear system of delegation and determined process for timely decisions that fall outside the limits of delegation.
- A determined process for controlling change.
- A determined process for reporting and other communications between the sponsor and the execution team.
- A collaborative culture and working relationship between the sponsor and the execution team.
- Board members have sufficient understanding of the project context to make reasonable timely decisions (or seek advice to help them).
- A defined system for assurance at all levels.


One reason why these gaps have appeared is that outsourced personnel and consultants are not public servants and therefore are not empowered to make decisions. Since the GACM structure is quite limited, many functions have been outsourced, but without enough control, creating redundancies and overlaps. In fact, in the international experience the weakness of project appraisal must in large part be attributed to weak capacity on the part of public sector clients (U4 Anti-corruption Centre). One solution is to outsource to private consulting companies, but this also creates risks that should be monitored and mitigated (Wells, 2015). In this sense, GACM should develop a policy on outsourcing, indicating clearly what criteria to consider when thinking about outsourcing and what protocols will be used to control outsourced activities. For the moment, a mapping of the services outsourced would help identify where overlaps are and avoid them in the future. These mapping should also include an accountability mechanism, so that there are specific GACM areas and staff following up their work. The risks of hiring consultants without proper accountability mechanisms include over-design to increase fees, incomplete design to leave room for changes that can later be manipulated, and collusion, among others. Such risks should be anticipated and mitigated when consultants need to be hired to bring in technical expertise (Box 2.8).
Support functions such as information technology and human resource management may be outsourced to provide organisational benefits. Companies frequently point to the cost savings for labour and training, but also cite the benefits of releasing corporate resources for alternative uses and allowing the business to focus on its core competencies. Outsourcing support functions is not simple, though, and companies should manage the related risk factors.

With every outsourced task comes a new responsibility to govern that task properly. The burden of carrying out a support function may be outsourced, but the responsibility for managing the supplier and for ensuring quality and accountability does not disappear. Tasks that are hard or costly to outsource require an extra dose of management or should be carried out internally. The worst solution is to outsource them and then under-manage the transaction.


The same effective accountability mechanisms need to be developed for GACM staff. Changes to the critical route of the project should be avoided and justified when this has to be done. As illustrated in Box 2.9, the lack of accountability mechanisms was part of the recipe for disaster during the construction of BBI. There should also be a detailed project corruption risk assessment that maps corruption risks throughout the project cycle and assesses whether existing controls are sufficient to manage those risks. The risk assessment should be an evolving document that is periodically reviewed and updated as the project moves on. A regularly revised risk assessment would support GACM’s ability to adapt to the evolving environment of the project.

Outsourced services are just one example of gaps in the governance model. GACM needs to develop a wider governance map (see Figure 2.4) that goes beyond the structure of the Federal Government and identifies the relationships and functions of the three groups of stakeholders identified in this report, namely government institutions, airport users, and the wider public, which can be further disaggregated into community groups, control authorities (i.e. SFP, ASF), and strategic partnerships (i.e. COFECE, INAI, OECD), among others. For example, several government institutions influence NAICM through their policy formulation function. This is the case, for instance, of SCT, which is responsible for air transport policy (i.e. open skies) and SEMARNAT, which is in charge of environmental policies. Indeed, when one looks at Figure 2.4, the governance structure looks more complex.
Box 2.9. Governance failures in the management of the Berlin-Brandenburg International Airport

Inexperienced and non-specialist management and supervision

In 2003, the political leadership of the project decided to fire the consortium of private companies initially set up to finance, build, and operate the airport and to make the construction of the airport a fully public project, arguing that the private sector should not benefit at the expense of the public sector. This was intended to save money, promote the local construction industry, and keep the project on schedule. None of the members of the political leadership had any actual experience with such large construction projects. Supervision ended up almost exclusively in the hands of politicians, civil servants, and union officials. The lack of expertise and technical knowledge of the supervisory board prevented proper and rigorous oversight of the planning and progress, resulting in delays, confusion, and major cost overruns.

Inaccuracy of budget estimation

A number of experts have pointed to the fact that the initial cost previsions of the airport were significantly underestimated, causing management problems all the way through execution. It was important for the political leadership to keep the estimated costs of the construction of the new airport low in order to strengthen political support.

Experts have identified this as a common feature in major infrastructure projects. The literature suggests that there is a similar pattern in democratic societies, where politicians have a tendency to deceive the public about the actual costs of these projects. In consequence, cost overruns rarely come as a surprise. Politicians often try to calculate the price to be as low as possible in order to obtain support for the projects, deliberately veiling the potential risks. Often those at the political helm take a calculated risk by assuming they will not be held personally responsible if costs start to explode. Danish researcher Bent Flyvbjerg of Oxford University argued that it often is not the best projects that are completed, but those that “are made to look best on paper (and that also) are the projects that amass the highest cost overruns and benefit shortfalls in reality.” This phenomenon is called “survival of the unfittest”.

Poor planning and procurement

The modification of the governance structure at the very beginning of the project made the preparation team lose substantial time. In 2007, new plans had to be drawn up and invitations to bid had to be prepared. The main construction contracts were only awarded in early 2009, and yet the airport was supposed to open in October 2011. The European Court of Auditors noted weaknesses in project preparation in the airport infrastructure project: planning documents were not ready and had to be modified during the tendering process, leading to significant cost overruns.

The poor planning process led to the operating agency directly awarding several additional contracts without a bidding process. This meant that the airport company systematically violated EU public procurement directives. The additional work covered by those contracts, the auditors noted, was foreseeable to management and should thus have been awarded via a bidding process.

The comptrollers from the European Court of Auditors found several eyebrow-raising items, such as a plan to create elevated parking spaces for Berlin Mayor and his VIP guests, so they could have easier access to gates, with a cost of EUR 567 000.

Changes and variations

A number of significant (and allegedly unnecessary) changes were integrated in the project along the way, increasing costs and time resources. For example, the board devoted considerable attention to the question of whether and where a two-story jet way for the Airbus A380 was to be built, and just before construction was slated to begin, the board decided to move the costly jet way from the main terminal, where all airlines can dock, to the Air Berlin departure area. Such variations or change orders contributed to blurring the execution of the project, creating opportunities for abuse and increasing overall costs.
In addition to the mapping of outsourced services, formalising two advisory groups would support the inclusiveness of the project. First, a monitoring group, composed not only of control authorities but also of NGOs (i.e. the Mexican chapter of Transparency International) and academia (II-UNAM). In fact, independent project monitoring is critical. The inclusiveness of this group could be helpful to providing credibility to control and follow-up mechanisms. Second, strategic partnerships should be formalised with a clear definition of the objectives of each one. While an agreement with the OECD...
has already been formalised, GACM should pursue the partnership already in the pipeline with COFECE and assign a special unit in SFP, notably, to review tender documentation.

Reshuffling governance is a time-consuming endeavour; therefore, it is important to get it right early. In fact, ineffective governance and project management at the preliminary stages of a project can have repercussions beyond an inappropriate choice of projects, leading to corrupt acts during implementation (Wells, 2015). Governance pitfalls are some of the factors identified as catalysts for the BBI failure (see Box 2.9).

An additional issue that deserves review is the allocation of risks derived from public works. In the end, it is the project owner, GACM, who is ultimately accountable for time, , quality, safety and costs. It is common that in megaprojects, the owner tries to transfer risks down the supply chain through the use of the procurement system. This is a motivation for contractors to price the risk within their tenders and in turn try to pass on the risk to their subcontractors. Alternatively, the owner may assume responsibility for risks while providing financial incentives for suppliers, rewarding successful performance. This approach proved to be successful during the construction of Heathrow Airport Terminal 5 (see Box 2.10).

**Box 2.10. Allocation of risks during the construction of Heathrow Airport Terminal 5**

The construction of Heathrow Airport Terminal 5 (T5) was the largest construction project in Europe in the early 2000s. The T5 project was an innovative and extremely complex multi-modal transport interchange designed to handle up to 30 million passengers a year. The scope of the T5 programme encompassed more than 60 contractors; 16 major integrated projects, e.g. buildings, air traffic control tower, earthworks, airfield, baggage handling system; 147 sub-projects; and 2 train extensions on a 260 ha site. By 2008, 50 000 people, employees, and key stakeholders had been involved in the construction.

The British Airports Authority (BAA), a major airport operator privatised in 1986, realised rapidly that if the projects were to be built on time and within budget a unique approach would be required. During the planning phase, just prior to the project construction phase in 2002, BAA carried out a two-year in-depth study of every major UK construction project of over GBP 1 billion conducted over the previous 10 years and every international airport that opened over the previous 15 years. This benchmarking study found that no such major UK construction project had successfully delivered on time, within budget, and to the quality standards originally determined in the contract, and that few projects had good safety records. It also found that no recently built airport had opened on time. Based on its study of 12 major airport programmes, BAA concluded that without a radically different approach the T5 project would cost over GBP 1 billion more than was affordable, would be two years late, and result in six fatalities.

BAA specifically identified two areas that contributed to the poor performance of megaprojects: the lack of collaboration among project partners and the client’s reluctance to assume responsibility for project risk. BAA recognised that the only way it could achieve the desired outcome on a major project was to change the “rules of the game” by establishing a new type of partnership with its first tier suppliers.

The bedrock of BAA’s project management approach was the T5 agreement, a relational contract between BAA and all the T5 first tier suppliers, including architects and engineering design consultants, general and specialised contractors and manufacturers, which junked the traditional concepts of construction contract. The BAA legal and commercial teams designed the contract aiming to minimise the conflicts that usually plagued major projects. Instead of spelling out a set of clauses accepting that things could go wrong, and seeking to pass the blame and
Box 1.10. Allocation of risks during the construction of Heathrow Airport Terminal 5 (continued)

recover money from suppliers, the T5 agreement aimed at creating incentives for positive problem-solving behaviours that would not allow things to go wrong in the first place. BAA deemed this stance fundamental for creating totally integrated project teams with the suppliers and enabling the latter to achieve exceptional performance.

The ethos of the T5 agreement was to move away from the traditional practice of infrastructure clients choosing suppliers who bid lowest. In this practice, clients often perceived suppliers as attempting to opportunistically exploit design errors and omissions for claiming payments for additional work, which offset the tight profit margins built in the bid. Due to disagreements between suppliers and clients about the legitimacy of these claims, costly litigation often followed causing work stoppages and delays. In contrast, the T5 agreement aimed to encourage suppliers to move into best practice and exceptional performance, and to actively seek and offer affordable and excellent solutions.

BAA took a different and unique approach to risk in T5 – it held all the risk - deciding it would be the best way to achieve price certainty. Subsequently, the contractors risk contingency was removed, lowering the overall tenders. Obviously with no risk placed on the contractor, incentives were required to encourage all to work to minimise the risk – the approach of “it doesn’t matter, it is not my bill” had to be avoided for this scheme to be successful. The risk was managed through financial incentives for suppliers, rewarding successful performances. During the design stage the risk contingency was held within each project, however in 2004 it was decided that cost targets could be more challenging. This resulted in GBP 100 million taken from individual projects to a central pot that allowed the risk contingency to be allocated depending on where it was needed. This contingency allowed greater control of the financial implications of risk at a more global level and thus tighter overall budget control.

Arguably it was the formation of trust from contract mechanisms that enabled the success of T5; the formation of integrated teams and the application of a novel form of contract enabled trust between all parties. Experts suggest that the risk associated with large, complex projects can provide the motivation for clients to pursue and reward innovation by contractors and suppliers. By taking on and actively managing project risk, BAA was able to pursue a strategy of rewarding performance enhanced by innovations from all participants.


Finally, GACM should consider that project governance arrangements can, and indeed should, change over time as the sponsor, in this case SCT, gains more understanding of risks and arrangements for management, as the management team and processes mature and demonstrate competence, and as the NAICM project progresses through its lifecycle.
2. Corporate governance should be reviewed to align with good international practice defined in the OECD Guidelines on Corporate Governance of SOEs

A first recommendation would be for the Federal Government to communicate its expectations to GACM through a letter to the board. This has been a successful tool in other OECD countries, as these “letters of intent” serve as medium-term roadmaps and allow boards to resist ad hoc political pressures (see OECD, 2013b). Even though a letter of intent would require strengthened co-ordination and reconciliation of the interests of different ministries, it would be extremely useful to define the State’s role as the owner of GACM.

In order to strengthen the vertical separation suggested by the OECD Guidelines on Corporate Governance of State-Owned Enterprises, the responsibilities of SCT (vis-à-vis GACM), the Board, and GACM’s executive management need to be more clearly defined. For example, the GACM Board will only fulfil its duties of oversight if it is given the powers to appoint and remove the Director General, but that would contravene the contents of LFEP. Likewise, the Director General would need greater executive autonomy to fulfil his management duties.

The second recommendation has to do with board composition and nomination. A more transparent and merit-based nomination of board members supports the avoidance of politisation of the appointment procedures, which would not ensure that the best professionals get the job. A central recommendation of the OECD Guidelines is that boards should be composed to exercise “independent and objective judgment”. In most OECD countries, SOE boards are composed of a mix of civil servants, other individuals tasked with pursuing the public interest and “independent” directors. The trend, fuelled by a growing commercialisation of SOEs, is toward a greater reliance on independent board members – or persons with relevant commercial experience.

Given that the appointment process to GACM’s Board is an attribution of the President through SCT, this ministry could put together a committee, consisting of representatives from different ministries, to make proposals to the President. This committee would be charged with identifying a pool of qualified candidates with experience in airport management, not only public officials, for the President to consider. Alternatively, the recruitment of suitable board members could be based on formal eligibility rules, processes to advice or vet ministerial candidates for board appointment, or actual or de facto nomination committees proposing candidates for the ultimate decision of the President. Since LFEP already considers the possibility of appointing non-public servants, there is no legal obstacle to give the board some diversity. In addition, training programmes should be established to facilitate the introduction of new board members. Practical training could include meetings with GACM managers and professional staff to improve the knowledge of the organisation.

That said, there is growing recognition that certain public sector representatives are not acceptable as SOE board members under any circumstance. OECD consensus holds that neither ministers, state secretaries, nor other direct representatives of, nor parties closely related to the executive powers should be represented on SOE boards. Scandinavian countries have gone further than most jurisdictions to formally limit the weight of politicians and bureaucrats in SOE boards. For example, active politicians, including members of parliament, ministers, state secretaries, as well as civil servants who within their remit exert regulatory or controlling authority over the company or deal with matters of substantial importance for the company, cannot be elected to the board of directors in Norway. Similar rules are in place in Germany, except regarding state
secretaries who can be appointed in SOE boards if they are not members of the parliament. New Zealand (which also has an express process for vetting conflict of interest) has gone farthest in instituting an absolute ban on any serving politicians or civil servants sitting on SOE boards.

Moreover, many countries have restrictions concerning the nomination of civil servants as board members. In Finland, for instance, only one civil servant from the ownership function (and in some cases another from a relevant administration) can serve on an SOE board, but potential conflict issues are avoided by generally not allowing the politically appointed civil servants to serve on boards. A similar approach has been adopted by Australia where appointment of departmental officers can only be considered in exceptional circumstances, having regard to their ability to represent the interests of the government, their possession of business skills, and to any potential conflicts of interest that might arise. So, in general, good practice is to avoid officials directly linked with the executive powers from sitting on SOE boards (OECD, 2013c) (Box 2.11).

**Box 2.11. Board appointment process in the United Kingdom**

The General Office of the Commissioner of Public Appointments (OCPA) recruitment process is as follows (although this may vary slightly depending on the size of the SOE and the specific requirements of the post):

- The central ownership advisory unit, the Shareholder Executive (ShEx) and the SOE Chair agree on the mix of skills and experience required on the board, leading to agreement on a strategic plan of public appointments.
- A timetable for recruitment is then agreed between the SOE, the lead Director in ShEx, and an independent assessor (IA).
- A draft specification setting out the role and requirements for the board appointment is drafted and agreed with HR and the SOE. The role and person specification is then agreed with the body or minister making the final decision.
- A candidate search is undertaken with the vacant position being publicly announced (i.e. advertised) and often involving the use of recruitment agencies to ensure a more thorough search of potential candidates.
- On the basis of applications received, a long list of potential candidates is produced. An initial assessment involving ShEx, the IA, and the SOE is conducted to produce a short list of candidates to interview.
- An interview panel is established comprising the lead ShEx policy official, the IA, and the Chair of the SOE.
- The panel then reaches agreement on the preferred candidate and submits a panel report with recommendations to departmental ministers.
- Once ministers have agreed on the recommendation, the appointment can be made.
- An appointment is normally for a fixed period of three years at which point the position is subject to re-election.

Where the post is not OCPA regulated, the SOE runs the process, but follows the OCPA guidelines in most instances.

GACM’s board members should then consider its participation as a personal duty and not as a function of the office they hold in the APF. Alternate members should not be considered interchangeable with the actual members and they should only attend board meetings instead of the regular members in extreme circumstances. This should be expressly regulated as experience illustrates that alternate members’ participation can quickly become the rule, rather than the exception.

A third recommendation deals with the lack of GACM’s internal audit function. An internal audit mechanism should be established to report directly to the GACM Board. This would strengthen the board’s ability to perform its oversight functions and would complement other audit mechanisms, such as those exercised by SFP and ASF.

Finally, the GACM Board should establish an annual process of self-evaluation. Such assessment would analyse how efficiently the board has carried out its duties, as a collegial entity and as individual members. These evaluations could be based on self-reporting or involve external facilitators. The reports would have to be submitted to the Federal Executive.

By aligning with the OECD Guidelines, Mexico’s authorities can enhance GACM’s governance without losing control of the entity and without compromising its strategic objectives, but giving it the flexibility that such a megaproject such as NAICM requires, and the possibility to benefit from the advantages of a corporate design.

3. While co-ordination among central government stakeholders seems to be working well, there should be a continuous effort to improve it

Optimal co-ordination is not a one-off exercise, but rather a permanent effort to bring coherence to the activities of different entities towards a common objective. Continuous efforts must be pursued to improve and fill the co-ordination gaps that, without a doubt, are always present in megaprojects. The leadership of ministries and agencies of federal government institutions should make sure that the information “cascades down” to the public officials who actually execute the programmes and initiatives related to the NAICM.

As the project moves on, the need for co-ordination will be even greater. For example, the procurement packaging strategy requires co-ordination from the different entities participating in the tender packages, the PM, the suppliers, the competition and control authorities, among others. The choice for a packaging strategy, while having many advantages, also calls for strong co-ordination.

Co-ordination with sub-national governments was an opportunity identified by the OECD team. This is also going to be more necessary as the project enters into phases that will require urban infrastructure and mobility measures. Since the new airport will be in the territory of the State of Mexico and its area of impact of around 300 km² will cover 11 municipalities of the State of Mexico and 3 delegations of the Federal District, the need to involve these sub-national units is clear. In fact, the experience of OECD countries illustrates that multi-level co-ordination can be advanced around specific initiatives (i.e. mega-infrastructure projects, sports and cultural events, administrative reforms, and international affairs). Forming high-level councils or committees (i.e. a Metropolitan Council for the NAICM) could be a way to achieve coherence and speak with a single voice, improving efficiency, as well as avoiding public disagreements leading to tensions, such as the disagreement between the Federal Government and the Government of the Federal District on how to decide the destiny of the current airport.22 It
could also be the starting point for developing a collaborative culture (OECD, forthcoming).

Furthermore, there is value in pursuing the idea of a special relationship with autonomous bodies such as the one established with INAI. The point is not to have these bodies intervening in every step GACM takes (i.e. having COFECE reviewing every tender), but rather to concentrate their interventions with a sense of proportionality of where the main risks are. Still, the expertise of these institutions does not only provide value to GACM activities, but also builds on the credibility of the NAICM project, which is a precious asset that should be protected and grown. See Box 2.12 as a relevant example.

Box 2.12. Multi-level co-ordination in the development of Milan-Malpensa Airport

Malpensa, the main airport of Milan and the second largest Italian airport, was between 1998 and 2007 the main hub of Alitalia. It is located approximately 50 km northwest of Milan, at the western border of a wide and economically active area with 3.9 million inhabitants, being inversely cone-shaped between Milan and the Alps. The other airports in the metropolitan area are Linate, 7 kilometres east of Milan’s centre, and Bergamo Orio al Serio, about 50 km east of Milan.

The airport was included in the 1983 regional transport planning (Regione Lombardia, 1983), although with a limited geographical role. In 1985, the airport franchisee, SEA, produced a new Master Plan for its development, based on traffic forecasts of 12 million passengers. On the basis of this, two national laws allocated resources for construction. In 1986 the General Transport Plan of Italy included the development of Malpensa to make it a “large airport for Northern Italy”. The Malpensa 2000 project was approved by Lombardy Regional Council and later in 1987 by the Italian Ministry of Transport.

The success of Malpensa airport has been at least partially dependent on better surface access, in which sub-national governments had a significant contribution. From the beginning surface access was seen as a potential weakness and cause of constraint for the project development. Although basic rail and highway access from Milan was promptly improved, Malpensa is still seen as remote, particularly from the rest of the region.

The regional government managed the planning of surface access mainly through dedicated plans and agreements. The two main documents were the agreement signed in 1999 and the annual regional financial plan (Regione Lombardia, 1999), both signed after the opening of the airport. The plan included approximately 40 road and rail investments, to be completed over a 7-8 year period with funding shared between Regione Lombardia and the State. The cost included some investments not linked at all to airport accessibility.


4. GACM capacities need to be proportionate to the magnitude and complexity of the project, and a collaborative working environment should be developed

The GACM faces serious capacity and human resource constraints, which becomes evident when benchmarking the project against other airport projects. Up to April 2015, GACM was operating with 65 members of staff with temporary, renewable three-month
contracts, plus 65 additional staff from outsourced companies, for a total of approximately 130 individuals. The projects for the construction of the airports of Hong Kong and Abu Dhabi required approximately 800 and 1 800 officials respectively, just from the leading authorities.

Since it would not be realistic to consider an expansion of the staff to a similar magnitude, more than numbers, it is necessary for GACM to identify the functions and skills that need to be reinforced. There is an urgency to align the complexity of the project with GACM’s capabilities. One example is the need to develop a communications department with professional skills and capable of implementing a proper communications strategy. Currently, communications regarding NAICM are managed from SCT and the Office of the President. Another example is the need to create a market intelligence team within the Deputy Direction for Procurement. The packaging strategy being developed requires market analyses to take good decisions concerning tender methodologies, timing, and sequencing. As of June 2015, it is not clear how GACM will proceed to gather market information. In this sense, the different government entities should recognise the extraordinary nature of the NAICM project, hence promoting a new vision for the GACM structure. In fact, the GACM organisational structure is governed by SHCP and SFP regulations. While dialogue between GACM and these ministries seems to be fluid, their timely interventions and decisions will be required to strengthen GACM capacities. This will not be an easy task considering the period of fiscal restrictions that Mexico is going through (partially due to low oil prices).

Capacity gaps can also be identified by benchmarking the organisational structure of GACM. It is necessary to analyse the responsibilities of the different corporate directorates and match them with the skill set. There are basically two alternative options for structuring the broader owner’s team: the indicative function-based structure and the indicative package-based structure (see Figures 1.5 and 1.6).

Figure 2.5. Indicative function-based structure
The indicative function-based structure is a traditional organisational structure with standard job descriptions, and for which it is relatively easier to recruit talent. However, it leads to functional silos and diluted accountability and co-ordination. As a consequence, end-to-end perspective is lost. This structure requires the PM and the project head to be strong integrators. This is the kind of structure GACM currently has with four core functions embodied in the four corporate directorates. However, a significant difference is that support functions in GACM are not directly subordinated to the Director General, but are inserted into the four corporate directorates. Legal affairs, for example, is within the Corporate Directorate for Administration and Real Estate Management, as is human resources. The transversal nature of such support functions is, therefore, not recognised in GACM’s organisation. Another noticeable difference is that in GACM one single area deals with bulk procurement, small purchases, and contract management. The different sets of skills for each one of these activities have not been developed within GACM’s structure. It is even plausible to enlarge and shrink the structures of the different areas as the project progresses and its needs vary. For example, during the most intensive construction phases, the structures of the corporate directorates for administration and infrastructure will need to grow, even if some functions are outsourced.

Figure 2.6. Indicative package-based structure

Source: Author’s own work.

The indicative package-based structure is quite popular in megaprojects. It provides an end-to-end view and clearer accountability links. However, managing packages requires a specific set of skills that is not easy to find. Likewise, matrix reporting is confusing due to functional implants in packages. Migrating to such a structure would require first closing the capacity gaps identified earlier and a major reorganisation of the NAICM project around portfolios (i.e. runways, terminal).
In addition to strengthening the organisational structure and the capacities of GACM, its leadership should be aware that successful megaprojects are accompanied by strong teams with favourable working conditions. This is even more relevant given the reduced timeline for the NAICM project. Indeed, a high degree of turnover would result in learning curves and, therefore, wasted time. A favourable working environment not only contributes to internal co-ordination, but also to reducing incentives for corruption. Appropriate salary levels, employment stability, a high degree of professionalism, and pride among the staff, as well as an environment in which officials and businessmen caught bribing or trying to manipulate processes find difficult to obtain other business, making corruption a high-risk activity, are all elements that ensure an adequate working environment. See Box 2.13 as an exemplary case study to consider.

Box 2.13. Positive work culture in the construction of Heathrow Airport Terminal 5

One of the core values within T5 was teamwork. This was encouraged through the passing of a rock upon a completed milestone. This ceremonial handover may seem trivial, but was done with great pride and the teamwork culture within the project meant workers did not want to let the team down by passing the rock late. Within T5, the British Airports Authority (BAA) sought to create a new culture that encouraged people to: i) seek out, capture, and exploit the best practices of others; ii) remove the barriers and inhibitors to doing things differently; iii) motivate and support good ideas; and iv) leverage the commercial incentives to perform exceptionally. The procurement methods adopted in the T5 agreement created a different climate compared to that of traditional design and build methods, as the feeling of trust and co-operation is key to success.

The T5 agreement was a cost-plus contract (the client pays the suppliers actual cost plus a fixed fee which includes overheads and profit) based upon a partnering approach. The T5 agreement was based upon behaviours and relationships, allowing “bespoke” interactions between BAA and suppliers. Literature suggests that contractors involved in megaprojects usually “play games” with more traditional contracts, such as bidding low to win the project and then working to commercially protect their company. The approach adopted within T5 discouraged these methods by adopting fair payment practices and changing the culture within the project. BAA instilled a culture with reduced emphasis on contractual principles commonly observed in construction and promoted a behavioural focus. The reduction in contract focus allowed an informal approach, in turn reducing the contractual conflict commonly reported. A goal sharing rather than individual goal culture was adopted within T5.

Source: www.designingbuildings.co.uk/wiki/Procurement_of_Heathrow_T5.

5. Continuous and open dialogue with stakeholders, involving them in planning, decision making, and oversight, is a key feature of successful megaprojects

Even though GACM has already advanced an extensive strategy to consult airport users and more limited efforts of social consultation, there is a need for a more systematic approach that not only informs, but also involves social groups in planning, decision making, and oversight. The objective is not only to communicate information, but to empower and develop ownership of the project by the different communities. Achieving such a degree of involvement requires going beyond the typical ex ante approach to
consultations to develop permanent engagement mechanisms and tools. In this way, social groups not only take ownership of the project, but also become advocates of their benefits and create incentives for good performance (Box 2.14). Indeed, it is widely accepted that a powerful catalyst for improved performance in megaprojects often comes from demands for accountability. Such demands may come from different sources such as the legislature, tax payers, voters, and civil society (Wells, 2015). Furthermore, a more inclusive approach would contribute to fulfilling the Equator Principles, an objective being pursued by GACM’s management.

Box 2.14. Stakeholder engagement during the construction of Heathrow Airport Terminal 5

Construction of T5 was approved by the Secretary of State on 20 November 2001, after the longest public inquiry in British history (46 months). Construction of the new terminal started in September 2002. Phase 1 of the project was completed and opened in March 2008, with the second phase opening in June 2011. The project required an estimated investment (mostly from British Airport Authority) of more than GBP 4.2 billion.

As said, the construction of Heathrow’s Terminal 5 holds the record of the longest public inquiry in the history of the United Kingdom, which lasted nearly four years. The public inquiry cost GBP 80 million, heard 700 witnesses, and generated 100 000 pages of transcripts. The Secretary of State gave his approval to the project after reviewing the public inquiry report, and a number of conditions and limitations were imposed to take into account the complaints of local communities regarding noise and pollution. Heathrow has since launched property and noise consultations to develop compensation packages and seek views on how that compensation fund should be used.

The London Chamber of Commerce became an advocate for the project as it launched a campaign, Business for T5, to promote the benefits of expanding the airport. It claimed that overseas visitors would spend an estimated 10 million fewer nights in Britain if Terminal 5 did not go ahead with a loss of about GBP 1 billion to the hotels sector and another GBP 500 million to the wider tourist industry.


In contrast, insufficient transparency in decision making may hurt confidence and trust in the project as stakeholders are not able to understand how, when, and by whom project decisions are made. International experience suggests different mechanisms to further citizen engagement in megaprojects and develop ownership, particularly in processes of planning and decision making, such as the following from OECD, 2014:

- **Public meetings/open houses held at project milestones:** This form of engagement opens opportunities for the public to participate in project development, not only previous to the launching of the project, but on a continuous basis. Members of the public are invited to provide written and/or oral comments on the scope of the project and to suggest reasonable alternatives for consideration. The public may also be invited to comment during the circulation of specific documents, such as the Environmental Impact Statement. Comments raised should be responded to in order to develop trust and keep the engagement of social actors, who otherwise may consider their efforts useless. Major meetings may be advertised in local newspapers to ensure maximum public participation.
- **Targeted meetings with stakeholders:** These kinds of meetings may include get-togethers with the villages and towns adjacent to the airport, briefings with elected officials, and meetings with representatives of municipal agencies such as the urban planning and transportation departments of the municipalities and delegations concerned, special interest groups, community groups, and with other interested parties as appropriate.

- **Mailing list:** A mailing list may include elected officials, public agency contacts, stakeholder and community groups, media, and individuals. The mailing list could be used to distribute meeting announcements and information about the project. An e-mail list could also be available for “e-mail blasts” that announce upcoming meetings and other information. These lists should be updated regularly to keep their relevance. A project mailing list, totalling more than 5,000 names and addresses, was compiled during the Tappan Zee Bridge/I-287 Corridor Project. Previous efforts also included the establishment of a Stakeholder Committee, five Stakeholders’ Advisory Working Groups (on finance, environment, land use, traffic and transit, and bridge issues), an Inter-metropolitan Planning Organisation, and task forces.

- **Informational materials:** These can be produced at key points during the project development process. Content could include written information on the project as well as visuals (photos, maps, and charts) and contact information. Presentations, meeting hand-outs, and other materials should be developed as appropriate to keep the public fully informed about project developments. Comment sheets should be made available at public meetings to encourage public input. In this sense, social media has also opened up new ways to interact with stakeholders and get their feedback efficiently.

- **Media outreach:** When appropriate, a media outreach effort should be conducted. This would involve contacting the media when there are new project developments to communicate, as well as issuing press releases at major milestones. This effort should include newspapers serving low-income and minority communities. GACM is going in the right direction as it has held press conferences to inform about the main features of NAICM and is planning others to, for example, describe the procurement packaging strategy. Nonetheless, this media outreach efforts need to be linked to a more holistic engagement strategy.

- **Repositories:** Local repositories throughout the project area would enable members of the public to examine project documents, including, for example, the Environmental Impact Assessment and the Infrastructure Master Plan. The repositories could include local libraries, town halls, and community centres.

Likewise, different tools can be promoted to motivate citizen engagement in the oversight of the project. The most common mechanisms include public information and complaints management, as well as third-party monitoring agreements (i.e. agreements with universities to monitor public works and enhance supervision).

There are, however, other mechanisms for more profound engagements, such as community monitors, social contracts, and social participation frameworks (OECD, 2014):

- Community monitors observe progress and the quality of megaprojects. They can be useful for creating trust among stakeholders, but need to be properly trained.
Social contracts are designed to clarify and capture stakeholder commitments. These are co-signed by the leading agency and representatives of users, contractors, local governments, and congressmen during the implementation phase of the project. The contracts reflect the agreed roles that emerge from dialogue processes. They illustrate not only the adherence of the leading agency to social participation principles, but also the contributions of each stakeholder towards the project, as well as roles and behaviours of each party that contribute implicitly to fighting corruption and to enhancing the governance environment. Social contracts can also be complemented with bilateral agreements between the leading agency and the parties.

A social participation framework (SPF), when applied, is set up from the outset of the project. The SPF is used during project preparation and continued throughout its cycle. The SPF contemplates three components: participation, communication, and transparency and accountability. The overall main objectives of the SPF are: i) guaranteeing a broad participation of the different stakeholders aiming at among other objectives, establishing their roles and responsibilities in realistic and fair terms; ii) creating awareness of the importance of expenditures and mechanisms for maintenance to preserve the project’s condition; iii) disseminating the project’s objectives and achievements; and iv) increasing the project’s transparency and accountability throughout its cycle (see Box 2.15 for more on the use of SPFs by the World Bank).

All the mechanisms mentioned above are useful to break away from a common feature of megaprojects around the world: keeping citizens at a significant distance from decision making. NAICM is certainly an opportunity to become a benchmark for inclusiveness.

6. Periodic financial and procurement reviews must be undertaken to respond to evolving conditions

Recurrent and integrated financial management and procurement reviews should be performed to confirm the adequacy of contract management arrangements. In terms of financial management, these reviews are useful to analyse issues such as the scheduled spending and the response to changes in the financing conditions of the project (i.e. budget cuts as a result of falling oil prices and contraction of private funding markets). GACM has developed alternative scenarios and strategies to address potential (and likely) budget cuts. These anticipatory actions should continue responding to changes in the markets.

Regarding procurement, evaluation is necessary, for example, to assess the achievement of secondary policy objectives against value for money. Appropriate planning, baseline analysis, risk assessment, key performance indicators (KPIs), and target outcomes should be established as the basis for the development of action plans or guidelines for implementation. The results of any use of the public procurement system of GACM to support secondary policy objectives (i.e. training Mexican companies to participate in megaprojects abroad) should be measured against appropriate milestones to provide policy makers with the necessary information regarding the benefits and costs of such use (OECD, 2015).
Box 2.15. The use of social participation frameworks by the World Bank

The Road Maintenance Project for Paraguay is an initiative of the Republic of Paraguay that received financial support from the World Bank in the form of a Specific Investment Lending. The Road Maintenance Project for Paraguay established a sustainable road management strategy to ensure the upgrading and maintenance of the road network through a rational and balanced use of scarce resources.

A social participation framework resulted from a series of consultations with key stakeholders aimed at ascertaining the local existing experience in similar processes. As part of this framework, the project implemented the following measures: i) consolidating participation mechanisms with differentiated intervention strategies according to the needs and capacities of all relevant stakeholders, and mainly the more vulnerable beneficiary groups, developing a wealth of feasible mechanisms ranging from one-way communication, such as information meetings, to collaborative mechanisms (shared control over decision making) and empowerment towards sustainability of the project if possible (transfer of control over decisions and resources); ii) strengthening of the communication activities with public awareness campaigns and training of different stakeholders, according to their needs and cultural characteristics; iii) developing of transparency and accountability measures in a comprehensive Improved Governance Framework and Project Action Plan to ensure fluent flow of reliable information to relevant stakeholders, continued feedback, social oversight; and clear signs of accomplishment of obligation of power-holders to take responsibility for their actions; and iv) an institutional strengthening component aimed at facilitating the institutional arrangement for implementation of these measures.

Many activities of this framework were developed during project preparation, among them the selection of the Basic Rural Unpaved Road Network in the three departments to be supported by the project. This component was designed and prepared through a participatory process with local communities, local governments, and civil society, both for the definition of the basic road network to include in the project and also to define the contributions, in-kind or monetary that the community could make to the project. This approach has had the advantage of involving potential beneficiaries from the beginning, empowering them, encouraging them to participate in decisions that will influence final outcomes and also promoting transparency and commitment with the project.


Experience in OECD member and observer countries illustrates that most of them do not consider the opportunity costs and potential risks when using procurement to support socio-economic objectives. In fact, 43% of the countries surveyed to assess progress with the 2008 “Recommendation of the Council on Enhancing Integrity in Public Procurement” did not systematically require written verification that public procurement is the best tool to achieve government objectives. The costs of achieving these goals should be considered and the trade-offs should be made explicit to determine whether procurement is a more cost-effective way to achieve socio-economic objectives than direct social policies (OECD, 2012).

The GACM governance structure allows for carrying out such evaluations, as there is one corporate directorate in charge of this task. However, other measures can be taken to make sure that such evaluations do occur, for example, the establishment of special units.
in SFP and SHCP to deal with issues related to NAICM (i.e. shortages of human resources, reviewing tender documentation and adapting the financing strategy).

Periodic reviews can also be useful to assess the relevance of the governance framework and the need for adjustment. The UK government developed the “Project Initiation Routemap”, which provides questions to complete such assessment (see Box 2.16).

**Box 2.16. The Project Initiation Routemap**

The Project Initiation Routemap is a product of the UK Government that arose from working collaboratively with industry and the University of Leeds. It is an aid to strategic decision making and supports the alignment of the sponsor and client capabilities to meet the degree of challenge during initiation and delivery of a project. It provides an objective and structured approach to project initiation, founded on a set of assessment tools.

The governance module of the routemap provides the key questions that project leaders should ask themselves when defining and reviewing the governance framework:

- Does the governance framework cover concerns identified in a complexity-capability assessment?
- Does it formalise which parties are accountable for what?
- Does it ensure people have sufficient authority to discharge their accountabilities?
- Does it enable effective decisions to be made (i.e. decisions that will stick)?
- Does it enable efficient decisions to be made (i.e. decision routes that are not overly burdensome)?
- Does it give stakeholders confidence in project delivery?
- Does it ensure risk is allocated to participating organisations aligned with their ability and willingness to own the risks?

Notes

1. ASA is a decentralised body of the Federal Government, with its own assets and legal personality, that operates, manages, and builds airports, provides fuelling services, technical advice, and consulting, as well as training and research regarding aeronautics and airports, and collaborates with the SCT concerning airport regulation, verification, and surveillance.


3. The revised Guidelines were approved by the OECD Council on 8 July 2015. More information can be found at www.oecd.org/daf/ca/guidelines-corporate-governance-soes.htm.

4. For the purpose of the Guidelines, any corporate entity in which the state exercises ownership should be considered as a state-owned enterprise (SOE).

5. Article 9 of LFEP mandates that the SHCP must be represented in the boards of enterprises with majority state participation.

6. Up to the appointment of GACM’s own internal comptroller, audit and control functions were being performed temporarily by the OIC of SCT.

7. See the GACM Organisation Manual for more information.

8. See the GACM Organisation Manual for more information.

9. Many other primary laws apply to specific activities and functions of the GACM (i.e. budgeting and transparency) but, for practical purposes, only the main and more general ones are described in this section. GACM’s Organisation Manual lists 72 primary laws, 10 codes, the budget decree of the corresponding years, 54 bylaws, 3 decrees, 39 treaties and international conventions, 30 agreements, 10 administrative manuals of general application, 8 bulletins (circulares), and 9 other regulatory instruments. Primary laws applicable to procurement will be discussed in length in the next chapter.

10. Preliminary results from the 2014 OECD Regulatory Management Indicators survey indicate that 61% of member countries have requirements for stakeholder engagement for all draft primary laws, 15% for only major regulations, 18% for some regulations, and only 6% never have such requirements. The numbers for secondary regulations are 52%, 20%, 17%, and 11%, respectively.

11. For more information, see the GACM website, at www.aeropuerto.gob.mx/gacm/estudios-y-documentos.php, consulted on 18 May 2015.

12. LEED is an international certification for sustainable design and construction. It is granted since 1998 by the Council of Green Buildings of the United States. Some
52 000 projects have been certified in the world, 1 700 in Latin America, and 320 in Mexico.

13. Information provided by GACM.

14. Information provided by GACM.

15. See http://archivo.eluniversal.com.mx/nacion-mexico/2014/encuesta-convence-construccion-de-aeropuerto--1036700.html#encuesta090914. The poll was taken by phone on 7-14 September 2014 and was applied to 1 000 individuals residing in the Federal District and its metropolitan area.

16. At the time of the interview (July 2015), the studies referenced had not yet been shared with GACM.

17. For more information, see the NAICM website at www.aeropuerto.gob.mx/fases-del-proyecto-del-nuevo-aeropuerto-de-mexico.php, consulted on 26 May 2015.


19. As of July 2015, the exact dates and formats of the “roadshows” had not been defined.


21. Independent directors (subject to national definitions) are individuals who do not directly represent any particular stakeholder interest in the SOE, but who are sought to bring specific skills and competencies to the board.

22. The current Mexico City airport will be shut down upon the beginning of operations of NAICM. There is still no definition over what to do with those facilities. While the Federal Government argues for consulting experts to make a decision, the Government of the Federal District has been promoting the idea of a public consultation.

23. The Tappan Zee Bridge is located in the State of New York, crossing the Hudson River between the Village of South Nyack in Rockland County and the Village of Tarrytown in Westchester County. The project started in 2012-13 and the first span of the new twin-span bridge is scheduled to open in 2016. The new bridge should be complete in 2018.

References


OECD (2014), “Good practices for the implementation of an integrity strategy in major infrastructure projects”, working document.


