THE POWER OF PUBLIC INVESTMENT MANAGEMENT
Transforming Resources into Assets for Growth

COUNTRY CASE STUDY

Timor-Leste: Public Investment Management from Post-Conflict Reconstruction to the 2011-2020 Strategic Development Plan

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This case study is one of a number of country cases in the Public Investment Management Series. The country case studies accompany the volume, “The Power of Public Investment Management: Transforming Resources into Assets for Growth”, World Bank (2014), and apply a common methodology to assess PIM systems globally.
This chapter captures some of the Public Investment Management (PIM) lessons and experiences from Timor-Leste as it tried to meet urgent infrastructure demands in a post-conflict environment, which benefited from a surge in petroleum receipts. It looks at institutional changes using standard features of Public Investment Management systems starting from the immediate post-independence period in 1999 right up to the launch of Timor-Leste’s Strategic Development Plan in July 2011. Increased control over domestic resources over this period, thanks to the onset of natural resource rents, gave the government more autonomy over prioritization and management of capital expenditure. It also enabled use of the Capital Budget to pursue multiple objectives including consolidating social stability, stimulating economic activity outside Dili, delivering quick results to address urgent infrastructure needs, and growth of the domestic private sector. The chapter tries to highlight some of the trade-offs that the PIM system faced in trying to meet these different objectives. It finally looks at some of the institutional reforms that the government embarked on in 2011 when the focus was shifting to large investments for long-term growth. This included centralizing selected PIM functions for large projects and decentralizing those functions for smaller projects.
Addressing the infrastructure gap in Timor-Leste has been a high priority for the Government and donors since the country’s independence in 1999. This chapter looks at how policies and institutions for public investment management (PIM) have evolved, starting from the immediate post-independence period in 1999 right up to the launch of Timor-Leste’s Strategic Development Plan in July 2011.

Developments in PIM policies over this period can be divided into three broad phases, starting with the immediate post-independence period when efforts were focused on emergency rehabilitation works, financed mostly by external donors. This was followed by the post-2006–07 political crisis period, when attention turned to accelerating Capital Budget execution to deliver quick results. Total capital spending increased three-fold thanks to a rapid rise in natural resource rents. Finally, the launch of the Strategic Development Plan (2011–20) in July 2011 prioritized major capital investments for long-term economic growth, involving a significant scaling up of public investments.

This chapter tries to capture some of the lessons and experiences from Timor-Leste as it tried to meet urgent infrastructure demands in a post-conflict environment, which benefited from a major surge in petroleum receipts. It looks at the institutional changes using standard features of PIM systems (Rajaram et al. 2010). It covers five major topics: (1) public investment trends, (2) stakeholders and institutional arrangements, (3) reforms to strengthen PIM for major projects, (4) reforms to decentralize PIM for small scale infrastructure, (5) highlights of Timor-Leste’s PIM system, and (6) conclusions.

**Public Investment Trends**

A combination of declining capital spending in the run-up to the Timor-Leste independence referendum in August 1999 and the violence that ensued in September 1999 destroyed or rendered inoperable nearly 70 percent of the country’s physical capital stock (World Bank 2002). By 2005 reconstruction efforts had helped to restore major infrastructure services, including the airport, seaports, water and electricity supplies, telecommunications, and public buildings. Much of this effort was donor-led, initially under the UN Transitional Authority for East Timor (UNTAET), followed by a series of donor projects.

Despite early achievements, infrastructure services were underfunded relative to needs, and public investment was on a downward trend (World Bank 2004). A relatively high share of resources went to General Public Services to establish state institutions, largely from scratch (GoET 2002, 83). Around 60 percent of all electricity connections were in Dili, which had close to 24 hours per day of power supply. However, only 32 percent of households across the country had access to electricity (GoTL 2008). Much of Timor-Leste’s extensive roads network was in a state of disrepair by 2007 due to lack of maintenance. The 2007 Survey of Living Standards showed a slight decrease in household access to roads (table X.1) (GoTL 2007). Access to water and sanitation was generally
low, and there were close to no improvements between 2000–01 and 2005–06 (table X.2) (UNICEF 2008).

Table X.1 Access to Roads, 2001 and 2007

<table>
<thead>
<tr>
<th>Access to nearest passable vehicle road to dwelling</th>
<th>2001</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking time to get there (minutes)</td>
<td>8.8</td>
<td>16.3</td>
</tr>
<tr>
<td>% population with access during rainy season</td>
<td>82.7</td>
<td>70.1</td>
</tr>
<tr>
<td>Number of times it was used last month</td>
<td>27.4</td>
<td>25.5</td>
</tr>
</tbody>
</table>

Source: GoTL 2007.

Table X.2 Access to Improved Sanitation and Water

<table>
<thead>
<tr>
<th>% of population with access</th>
<th>Timor-Leste</th>
<th>LIC</th>
<th>LMIC</th>
<th>HIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved sanitation facilities</td>
<td>40</td>
<td>44</td>
<td>34</td>
<td>52</td>
</tr>
<tr>
<td>Improved water source</td>
<td>61</td>
<td>63</td>
<td>62</td>
<td>83</td>
</tr>
</tbody>
</table>

Source: World Development Indicators and UNICEF

Note: LIC = low-income country; LMIC = low-middle-income countries; HIC = high-income countries

Public investment before 2006 was largely dominated by donor-funded projects through World Bank-administered Multi-Donor Trust Funds and bilateral donors (figure X.1). The Government of Timor-Leste Budget (the Consolidated Fund) had donor budget support and limited domestic revenue, primarily for recurrent spending. Though not unusual in low-income countries, this arrangement had fragmented the PIM system for both investment preparation and implementation, given the different requirements of various donor instruments. The Government had little legal or financial control over the Capital Budget. National Consultative Council debates during this period focused mostly on the recurrent budget. The Capital Budget was largely a tool to better coordinate donor projects (Carnahan 2004, 52), as is typical for public investment plans in post-conflict situations.
The post-2006 period has seen major changes in PIM thanks to petroleum receipts, which jumped from $140 million per year in 2004 to an estimated $2.2 billion per year in 2010. These were paid into a Petroleum Fund, which in 2011 had in excess of $7 billion in savings. Withdrawals from the fund were channelled through the State Budget, guided by the Estimated Sustainable Income (ESI) from petroleum wealth.\(^1\) The Petroleum Fund had helped to ensure transparency and accountability in petroleum revenue management. It enabled the Government to integrate public investment into the State Budget. Donors at this time accounted for less than ten percent of the Capital Budget, although they continued to fund technical assistance on Public Finance Management in general and PIM in particular.

The Government’s overall Capital Budget and Capital Budget execution increased sharply after 2006. The Capital Budget went from around $39 million in 2005–06 to $254 million in 2010 (figure X.2). At the same time, actual spending increased from $12 million in 2005–06 to $216 million in 2010. Better execution was largely due to delegation of procurement and spending authority to line ministries. The Government also introduced faster disbursing capital investment programs (see box X.2), which were based on more streamlined procurement arrangements.
Public Investment Management from Post-Conflict Reconstruction to the 2011-2020 Strategic Development Plan

Figure X.2 Government Capital Budget and Expenditure, 2002–10 (US$ millions)

Capital spending between 2008 and 2010 was dominated by three major areas of investment: electricity, public buildings, and roads. Together they account for nearly 90 percent of total capital spending over this period, with electricity accounting for around 42 percent and public buildings around 37 percent (table X.3). The Government in 2008 embarked on a major electricity generation and distribution project. Following initial implementation delays, and a major project redesign at the end of 2009, spending on the electricity project picked up significantly in 2010.

Table X.3 Spending by Infrastructure Type, 2008–10 (US$ thousands)

<table>
<thead>
<tr>
<th>Infrastructure Types</th>
<th>2008–10 Annual Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan US$ thousands</td>
</tr>
<tr>
<td>Electricity</td>
<td>68,750</td>
</tr>
<tr>
<td>Buildings</td>
<td>52,191</td>
</tr>
<tr>
<td>Roads</td>
<td>26,104</td>
</tr>
<tr>
<td>Bridges</td>
<td>7,051</td>
</tr>
<tr>
<td>Services</td>
<td>5,187</td>
</tr>
<tr>
<td>Irrigation</td>
<td>4,648</td>
</tr>
<tr>
<td>Water</td>
<td>1,941</td>
</tr>
<tr>
<td>Markets</td>
<td>1,566</td>
</tr>
<tr>
<td>Flood control</td>
<td>1,536</td>
</tr>
<tr>
<td>Drain and sewer</td>
<td>155</td>
</tr>
</tbody>
</table>

Source: Staff estimates based on official Budget figures

The capital investment plan between 2008 and 2011 had a small number of large projects, which constituted the majority of the Capital Budget. There were also a large number of small projects. Around 13 percent of the 1,200 projects planned in the last three years made up nearly 80 percent of the Capital Budget (figure X.3).
These trends raised a number of interesting issues for PIM in Timor-Leste, particularly as the Government in 2011 was looking to scale up major capital spending. This effort called for proportionality in appraisal based on the size of public investments, and alternative financing and implementation arrangements, particularly given fledgling domestic capacity both in government and the private sector. At the same time, the Government wanted to stimulate private sector growth and redistribute resources. This presented trade-offs, discussed further in the next section, for a post-conflict, resource-rich country, wanting to accelerate implementation whilst ensuring quality investments.

**Stakeholders and Institutional Arrangements**

In contrast to many resource-dependent states, nearly all public investment in Timor-Leste was financed and implemented through the State Budget. As of 2011 most donor-funded capital projects (aside from in-kind assistance and UN support mission) were shown in the Budget; the Petroleum Fund was fully integrated into the Budget; there was no national oil company conducting off-budget public investment; Government commercial activities were not corporatized and were included in the Budget; and there were no bundled “resources for infrastructure” projects or Public Private Partnerships (PPPs).

The Ministry of Finance (MOF) played a major role in the preparation and the execution of capital projects. MOF’s Budget Review Committee discussed line ministry submissions annually and helped to screen and prioritize projects. There was more delegation of spending and procurement authority from MOF to line ministries in the run up to 2011. But MOF was still involved in the procurement of large contracts and the Treasury at MOF operated a centralized payments and accounting system.

The Prime Minister’s Office took an active role in capital spending decisions. Major investments (greater than $3 million) were usually subject to discussions by the Council of Ministers. But the PM’s Office played a key role in discussions on the overall Capital Budget (for example, determining the aggregate level of capital spending, its allocation across ministries and
agencies, and project selection within ministries) and big strategic projects, particularly in the power sector.

Implementation of the Capital and Development Budget

The Ministry of Infrastructure (MOI) was the lead agency for PIM in Timor-Leste. MOI was established after 2007, by amalgamating various ministries and directorates responsible for infrastructure (GoET 2002, chap. 15). Its responsibilities included developing PIM policies, standards, and laws; carrying out diagnostic, appraisal, and design work; overseeing the implementation of capital works and the testing of civil works to ensure adherence to standards and project plans; operations and maintenance; and monitoring and evaluation of capital projects. Between 2008 and 2011, MOI was responsible for nearly 70 percent of total capital investments, mainly in electricity, buildings, and roads.

Other line ministries were involved mostly in the construction or rehabilitation of public buildings and markets. With the exception of the Ministry of Agriculture, which was involved in irrigation, line ministries generally did not engage in other types of infrastructure works. Public buildings accounted for around 37 percent of the Capital Budget in 2008–11. The Ministries of Education, Health, Infrastructure, and Defense made up around half of the budget for public buildings (figure X.4). The Ministries of Education and Health had their own units to prepare and implement school and health facility projects. Much of the PIM arrangements for those ministries were developed under World Bank projects. However, the lack of domestic building codes and regulations was an issue in terms of maintaining standards. The Secretariat of State for Public Works in MOI signed off on most building projects, based mostly on Indonesian standards. The Government had started preparing draft legislation to address this in 2011.

Figure X.4 Planned Spending on Buildings by Ministry

Government activities of a commercial nature were organized within government departments as autonomous agencies, not as separate corporations. There were four autonomous agencies:
Electricity of Timor-Leste, the Ports Authority, the Civil Aviation Authority, and the Institute of Material and Equipment. The revenues and expenditures of these agencies were shown separately in the annual Budget, and their net spending, including capital spending, was appropriated by the Parliament. The only corporation in which the Government had an ownership interest is Timor Telecom (20 percent equity interest).

Supply Side of PIM

On the supply side, between 2009 and 2011 the number of construction licenses from the Ministry of Tourism Commerce and Industry grew rapidly. Approximately 2,000 companies had business activity licenses in 2011, allowing them to engage in construction. Many of the construction companies were sole entrepreneurs. The Timor-Leste Chamber of Commerce and Industry and the Contractors’ Association (AECCOP) estimated that around 400 of the companies were reasonably qualified. A Decree Law introduced in February 2010 (Jornal da Republica 2010) required companies to prequalify based on specific criteria before they could engage in construction activity. By 2011, however, implementation of the Decree Law had not yet started in full.

In addition to contractors, private consultants provided project design and supervision services under Government contracts. MOI had budgeted $5–8 million per year between 2008 and 2010 for such services. Some of the consultants had the capacity to carry out appraisals, but in practice they went straight into detailed designs. Project design consultants were often involved in supervising public works once contractors were appointed, reporting regularly to MOI. The 2011 State Budget substantially increased allocations for infrastructure consultancy services to just over $37 million, as part of the Government’s efforts to strengthen upstream PIM, particularly for major projects, as discussed in the next section.

Independent Oversight

The Constitution provided for a Supreme Audit Institution, but as of 2011 one had yet to be established. It also provided for a Court of Accounts (High Administrative, Tax and Audit Court, HATAC). This has been under discussion for some time, and legislation to establish HATAC was submitted to Parliament in mid-2011. In the absence of HATAC, the executive branch appointed an external firm to audit the Government’s accounts. This provided some degree of assurance, although the scope of the audit did not cover performance or proprietary audits, or audits of financial management processes in line ministries.

When the annual Budget was presented to Parliament, the responsible Parliamentary Committee (Commission C) reviewed each line ministry’s Budget, including for capital projects. There was a gradual increase in parliamentary capacity to scrutinize public spending plans. Parliament also received and discussed the quarterly budget execution reports, but it was understood that it paid much less attention to the final Budget Execution Report and external audit report. Finally, there were two nongovernmental organizations (NGOs) (La’o Hamutuk and Luta
Hamutuk) that were very active in monitoring petroleum revenues, the Government Budget, and public investment.

Reforms to Strengthen PIM for Major Projects

The scaling up of public investment understandably created a number of challenges. Aside from the lack of capacity to appraise, design, and cost projects, internal controls were at an early stage of development, as were audit capacities. There were challenges across the entire investment cycle. These prompted the Government to introduce institutional reforms to strengthen the preparation and implementation of large projects. These reforms were designed to tackle many of the difficulties the Government faced in implementing the capital program and the scaling up of major project activity envisaged from 2011. The new institutional framework is summarized in box X.1 and discussed further in the chapter.

Box X.1  New Institutions to Strengthen PIM for Large Projects

The Government introduced a number of reforms to implement major capital projects. The Major Projects Secretariat (MPS), operating out of MOF since 2011, was responsible for appraising large projects proposed by line ministries. The MPS made recommendations to an Infrastructure Fund (IF) established in 2010 to enable the Government to notionally ring-fence Budget resources for any multi-year project worth more than $1 million. The IF was part of the Budget and overseen by an Administration Board consisting of the Prime Minister, the Minister of Finance, and the Minister of Infrastructure.

The Administration Board recommended projects for inclusion in the IF. The Budget included allocations for procuring the services of private consultants to undertake detailed project design. The Government appointed an Independent Procurement Firm in mid-2011 to execute the procurement of contracts (goods, works and services) exceeding $1 million in order to promote transparency around procurement. The performance of this Procurement Firm was in turn to be monitored by a new Procurement Commission.

The responsibility for project implementation continued to rest with line ministries. Some functions however were centralized and done independently (for example, appraisal [MPS] and procurement [IPF] as noted). In addition, a National Development Agency (NDA) was established under the Prime Minister's Office. The NDA was responsible for reviewing the accuracy of costing of projects in budget submission and payments to consultants and contractors.

The institutional reforms centralized several core functions along the PIM cycle. The aim was to have greater oversight and independent scrutiny of project preparation and implementation. The Government also intended to increase capacity in critical areas like appraisal of major projects and
procurement. Increased internal demand for quality could have helped create strong incentives for delivering better projects. The concern at the time, however, was that these changes would take time to settle, and line ministry ownership over projects may have suffered as a result of this centralization. There were also likely to be some trade-offs, especially in the short term, between the quality of project preparation (and perhaps also of project implementation), and the speed of budget execution.

The new arrangements needed to ensure clarity of responsibilities and avoid overlapping mandates and duplication. Some functions were centralized, but responsibilities were also fragmented, which may have diluted accountability. The NDA and the MPS both played a role in the appraisal of major projects, and their respective roles therefore would have benefited from clearer delineation. Similarly, the new Procurement Commission, the NDA, the MPS, and the HATAC all played a role in ex ante verification of tenders. The multiple layers of review and authorization could have resulted in delay to procurement.

In project implementation, the NDA was designed to perform an additional layer of inspection and authorization for all projects, over and above the role of implementing line ministries. The principles of risk-based monitoring and selective intervention by central agencies would have been important in strengthening the incentives for line ministries and to economize on scarce capacity. Finally, the creation of internal audit units in each line ministry, while retaining a centralized Inspector General, could have also resulted in overlapping roles.

### Decentralizing PIM for Small-Scale Works

In addition to centralizing PIM arrangements for major projects, the Government had increasingly decentralized PIM for smaller projects. From 2009 to 2011, the Government significantly increased resources for decentralized PIM through a number of the programs summarized in Box X.2. The responsibility for administering and implementing these programs had gradually shifted to MSATM (Ministry of State Administration and Territorial Management and District Administrators). The Capital Budgets of line ministries had concurrently fallen, although they were still responsible for working with MSATM and District Administrators on project selection, design, and implementation—especially as there was very limited capacity for these functions at the district level.

#### Box X.2 Overview of Decentralized PIM Arrangements

Until 2009 the main arrangement for decentralized PIM was the Local Development Program (LDP) administered by the Ministry of State Administration and Territorial Management (MSATM) in partnership with the United Nations Capital Development Fund. The LDP ($3.5 million in 2011) was allocated across districts on a per capita basis. The objectives of the LDP included piloting procedures for subnational planning, budgeting, and project management. Projects were prioritized
through community-based consultations, screened by district assemblies, appraised at a basic level by district level Verification and Appraisal Teams (VAT), and implemented by (Sub-) District Implementation Committees using local contractors or communities. LDP was ongoing since 2004. In 2009 the Government reallocated around $70 million from the slow disbursing power project to 700 small-scale infrastructure projects of line ministries. The Referendum Package (RP), as it was known, was managed by MOI and the Business Association of Construction and Public Works (AECCOP). Its objectives were to accelerate capital investment throughout the country while stimulating local businesses. AECCOP selected contractors through restricted tender and direct awards based on set criteria. The existing Procurement Law allowed two quotations for projects under $100,000, which was increased to $150,000 under the RP. The Vice Prime Minister’s Office and MOI appointed inspection teams to supervise and monitor project implementation.

The RP was not continued after 2009. Instead in 2010 the Government introduced a $31 million Decentralized Development Package (DDP) through a Mid-Year Budget Rectification. Unlike the RP, the resources for the DDP went to MSATM. Project implementation, supervision, and financial management arrangements were similar to those of the LDP. Project prioritization and contract procurement procedures however were not the same. Projects were pre-determined from a list provided by line ministries, and civil works contracts up to $250,000 could be granted directly to local contractors without tender (Decree-Law 2/2010, 18 February 2010). A government-wide Task Force Team helped to coordinate the program, and Joint District Teams oversaw implementation.

The Government in 2011 introduced Decentralized Development Programs I and II. DDP I ($15.5 million in 2011) covered contracts up to $150,000 and DDP II ($28.8 million in 2011) covered contracts from $150,001 to $500,000. DDP I is under MSATM and DDP II is under the newly established NDA. Both could award contracts directly to local contractors. The eligibility criteria for local contractors had been tightened to include registration and tax payments, technical capacity, financial capacity, and the ability to contribute to local development. Companies were put in four different categories, which determined the size of contract they could be granted. District Development Committees, with representatives from various government departments, awarded contracts and oversaw public works. To further harmonize decentralized PIM arrangements, MSATM in 2011 announced the launch of a new Integrated District Development Plan (PDID), which would build on LDP arrangements.

The Government in 2011 committed to consolidating the overall framework for managing these small-scale infrastructure programs. Institutional arrangements understandably created confusion, given the pace of change. Program administration rested with MSATM and NDA, implementation of projects with line ministries and District Administrators, and monitoring and evaluation with MSATM and NDA. Procurement and other selection methods for contractors were harmonized to avoid multiple arrangements and criteria for contract awards. The workload of
District Administrators increased substantially. They were effectively dealing with a tenfold increase in the level of resources they needed to manage, compared to when they only had to implement the LDP.

**Trade-Offs Between Faster Implementation and Quality**

Expanding economic opportunities and accelerating implementation involved trade-offs in terms of the quality of public works. The Government made deliberate choices in this regard to redistribute resources across the country and to stimulate economic activity outside of Dili. The 2010 Census showed that population growth in Dili (4.8 percent in 2004–2010) was higher than in other districts, with 22 percent of the population based in the capital city (GoTL 2010). The 2010 Labour Force Survey showed that 80 percent of the rural labour force is “vulnerably employed,” compared to 42 percent of the urban population.

The Government therefore could potentially justify some trade-offs in the short-term if it helped to curtail social tensions, although the process had to be managed carefully. A lack of economic opportunities is a significant contributor to the risk of violence. At the same time, the absence of adequate systems to encourage transparent tendering processes, community engagement in monitoring, and accountability for project quality, could risk elite capture, perceived inequity, and lack of government legitimacy.

To manage the potential risks of local tensions, MSATM was developing a ministry-wide grievance handling mechanism. The objective of this was to capture, evaluate, investigate, and resolve disputes related to decentralized development programs. Frustration at perceived inequities or poor project quality can otherwise fuel conflict. Disputes over development resources fell outside the purview and influence of Timor-Leste’s traditional conflict resolution bodies, and formal investigation bodies lacked the capacity to deal with complaints relating to decentralized public investments.

A central mechanism to address grievances and to provide independent oversight through the NDA and MPS could have helped to promote better project selection and implementation. Experience has shown that participatory approaches and community-driven infrastructure projects are not immune to corruption, and priorities can reflect the interests of selected local groups. One study, for example, showed that increasing local level participation in road projects in Indonesia did not reduce corruption, and that top-down monitoring may in fact be more effective (Olken 2005). For road maintenance, in particular, the study finds that strong central audits outperform decentralized monitoring mechanisms, suggesting a strong role for the NDA and external audit.

**Addressing Market Failures and Capacity Constraints**

In addition to redistribution aims, it is also possible to see how short-term trade-offs on quality could have been pursued to help address market failures and domestic capacity constraints. Although decentralized PIM arrangements were rules-based, there was little time to put in place
extensive systems of quality control. Additionally, heavy ex ante requirements for competition may have skewed contracting to a limited pool of qualified contractors.

Complex requirements for project preparation and selection are likely to have very low levels of compliance. This is because of severe capacity constraints, both on supply and demand sides (Butterworth and Dale 2011, sections 2.5 and 2.6). Creating opportunities for the local community, on the other hand, has the potential to empower local entrepreneurs that have a stake in local development, including ongoing operation and maintenance, as well as to encourage local transfer of technology and skills by creating clusters of contractors. Capturing these benefits requires high-quality policy implementation; otherwise, the sacrifice of improved service delivery from better PIM may be exacerbated by corruption or low-quality construction.

Mechanisms that allow learning by doing and create incentives for improved service delivery therefore could contribute to stability and address market realities. Project management and monitoring systems were being established in MOI, MSATM, and NDA to enable reviews of project efficiency and quality. These could have been used to benchmark performance, build capacity, and provide incentives for better projects. For example, the Government tried to assess the performance of contractors, which reportedly had resulted in a number of them being disqualified for follow-up projects. The Government could adopt additional measures to further strengthen learning by doing, such as mid-term project reviews or a basic review of duration and cost against plan and budget.

**Highlights of Timor-Leste’s PIM System**

Since Independence, Timor-Leste had gone through three broad phases of strategic guidance on public investment. The first was with the National Development Strategy (NDS) in 2002. The second was in the post-2006 crisis period when the Government adopted the National Priorities framework. The third was with the launch of the Strategic Development Plan in July 2011. During each phase, the Government used a mix of top-down macro assessments and bottom-up sector strategies. But the emphasis had shifted as more data became available and as strategic priorities also changed (for example, post-conflict stabilization, economic recovery, longer-term growth).

**First National Development Plan**

Timor-Leste’s first National Development Plan (NDP) in 2002 focused on restoring basic infrastructure needs. Bottom-up needs assessments established reconstruction and rehabilitation priorities. There was not much cross-sector analysis, which was understandable when the priority was to restore basic capacity within specific sectors. It was a comprehensive strategy setting out a roadmap to tackle infrastructure issues, with key performance indicators for capital investments (GoET 2002, chapter 15). Sector Investment Programs linked to the NDP and prepared in 2004–05 envisaged a steady rise in investment, financed mostly by donors (GoET 2005). Total capital spending, including from government resources, was expected to reach $466 million between
2004–05 and 2008–09 (GoET 2005, table 11). Planned investments were mostly for basic infrastructure and one major project—the Ira Lalaro hydro-power project and transmission line to Dili ($112 million).

Following the 2006 political crisis, the new Government accelerated efforts to address urgent investment needs for economic recovery and social stability. The NDP and SIPs were discontinued. There was no alternative medium-term investment program. Strategic guidance came from annual planning exercises including Ministries’ Annual Action Plans, the National Priorities’ Process, and the annual Budget. This was a good, practical approach in a post-crisis period. The Government had to take measured risks to ensure delivery of results in the short-term and to stabilize the situation. Capital investment plans were transparent—lists of projects were published as part of the annual State Budget. Sector and geographic breakdowns of decentralized infrastructure projects were also available.

The Strategic Development Plan 2011–30 went beyond basic reconstruction and rehabilitation to target major capital investments in order to drive output in the agriculture, tourism, and petroleum sectors. The Government envisaged a $3.5 billion capital program between 2011 and 2015. Therefore capital spending was expected to be three times higher per year compared to 2010, dominated by electricity, roads, and buildings. Electricity in particular accounted for around a quarter of projected capital spending. But the SDP also prioritized previously underfunded sectors such as ports, airports, water and sanitation, sewers, and bridges (see figure X.5).

**Figure X.5  Projected Spending by Infrastructure Type, Excluding Electricity, 2011–15 ($US millions)**

![Graph showing projected spending by infrastructure type, excluding electricity, from 2011 to 2015.](image)

*Source: Staff estimates based on official Budget figures*

The macroeconomic framework in the Strategic Development Plan provided aggregate level guidance on overall investment levels based on estimated impact on growth (GoTL 2011). It assumed a very high level of public investment (close to 50–60 percent of GDP), and then a gradual
tailing off over the remainder of the SDP period. The macroeconomic framework targeted around 11 percent growth per year between 2011 and 2020.

Capital investments were expected to play an important role in promoting growth in Timor-Leste. But this would also depend on the extent to which they were a binding constraint relative to other factors—including macroeconomic, institutional, structural, and human resource constraints (for more detail see Estache 2010; Straub 2008; Easterly 2002). The 2011 Budget made provisions for studies over the medium term, including spatial development analyses. These would be facilitated through strengthened statistical capacity (for example, Household Income Expenditure Survey, Census, Labour Force Survey, Business Activity Survey, Agricultural survey) to help inform infrastructure policy.

Sector studies complemented macroeconomic assessments to help prioritize investments according to sector needs. For example, the Ministries of Health and Education both had strategies that link capital spending to their service delivery targets. In the education sector, investments in school buildings were based on projected enrolment rates. The Ministry of Education Infrastructure Facilities Unit had a detailed database that covered the existing conditions of school facilities, recent investments, and demographic information. These criteria provided guidance for prioritizing schools and areas. Similarly, the Ministry of Infrastructure has detailed diagnostics on the current status of national, regional, and rural roads, which is informing rehabilitation and reconstruction needs. Once investments are prioritized based on strategic guidance and expected development impact, they can be individually appraised.

**Project Appraisal**

Until the advent of the Strategic Development Plan, there was little focus on project appraisal in Timor-Leste’s PIM cycle. In Timor-Leste very few projects had been formally appraised other than donor-financed ones. There was no central appraisal guidance, and capacity in this area was very low both in private and public sectors. Individual projects were generally approved based on sector strategies or political decisions—they tended to go straight into detailed designs. Between 2008 and 2010 the State Budget had allocated over $15 million in total for consultancies to assist with appraisal and design, though most went on design only.

The lack of focus on appraisal could have been due in part to the nature of investments up to 2011. As discussed, much of the infrastructure spending between 2008 and 2010 was on relatively small, emergency rehabilitation projects. The proportionality of appraisal is very important, particularly in low-capacity environments. It is important to adhere to minimum standards and to mitigate against any environmental and social risks, but the focus for small projects should be on the quality of implementation and ex post evaluation.

On the other hand, large and complex projects do need rigorous appraisal. The costs associated with the failure of any one large project are potentially significant. Timor-Leste’s power project, for example, had to undergo a number of major adjustments after approval in order to
comply with environmental and other safeguards. These types of potentially costly adjustments can be avoided or minimized through appraisal.

Accordingly the Government turned its attention to project appraisal, with a particular focus on projects above $1 million. The Major Projects Secretariat (MPS) developed standard templates for project briefs from line ministries with information on objectives, location, costs, and expected beneficiaries and impacts. A little over 100 project briefs were submitted for MPS review and appraisal for the 2012 Budget. The National Development Agency independently reviewed these. Projects cleared by MPS were finally submitted to the Administration Board of the Infrastructure Fund for further consideration and final approval for the 2012 Budget.

The first round of appraisals highlighted major information and capacity gaps, but this was an important development. For the 2013 Budget, the process was due to start earlier, and MPS was supposed to receive additional resources to recruit external assistance for project appraisal. The exercise helped ensure that better quality projects were approved in the State Budget compared to previous years.

**Project Selection and Budgeting**

Public Investment had been a major priority in the Government Budget, particularly since Timor-Leste’s 2006 crisis. Although allocations across spending categories (Salaries and Wages, Goods and Services, Transfers, Minor Capital, and Capital and Development) were mostly incremental, Capital and Development with Transfers (mostly social protection programs) increased very rapidly.

There were a number of ongoing challenges with the project selection and budgeting process. Public investment proposals from line ministries were developed late in the budget preparation process, which itself was quite compressed. Budget submissions had little detail because projects had not been appraised. There were inconsistencies in costing across similar projects, and it was difficult to assess whether completion targets were realistic. Since moving to cash-based budgeting, carryovers were no longer allowed, therefore unfinished projects needed new appropriations for the following year. This created challenges to plan for and implement multi-year projects. The Government also felt that not being able to shift resources in and out of Capital and Development allocations of ministries was too tight a budget constraint.

Parliament approved Capital and Development appropriations for each ministry, not individual projects. Although projects are listed in the Budget Book, line ministries could shift resources between them so long as they remained within their overall allocation for Capital and Development. MOF could approve changes across specific line items within Capital and Development (that is, acquisition of buildings, infrastructure assets, and major capital equipment). However, any change to the overall Capital and Development Budget at individual ministry level had to be approved by Parliament.
To address some of these challenges, the Government established an Infrastructure Fund at the end of 2010. Approved major projects were now appropriated to the fund, which in the 2011 Budget covered nearly 90 percent of all infrastructure spending. The Infrastructure Fund is on Budget and subject to the Budget and Financial Management Law (2009). One of the main issues that it tried to tackle was budgeting for multi-year projects. The budget process did not allow this in the past, given the need to re-appropriate. There was still a lead ministry for each project under the fund. But the Infrastructure Fund effectively became the administrative unit, so it was now possible to shift resources between projects implemented by different ministries without having to go back to Parliament. At the same time, MOF was also introducing new systems to better track and report on project performance (see next section).

With growing complexity in the Capital Budget and potentially new sources of financing, medium-term fiscal planning became increasingly important. Timor-Leste’s Petroleum Fund had provided an important instrument to inform the Government’s decisions on the level of spending. The Petroleum Fund was based on a sustainable permanent income model. Projections of estimated sustainable income used conservative oil price assumptions, which contributed to fiscal prudence and discipline. To further inform decisions on the fiscal envelope, MOF started assessing the impact of different aggregate spending scenarios on Petroleum Fund balances. This provided a good basis to deepen the analysis and develop a Medium-Term Fiscal Framework to help integrate the top-down envelope with bottom-up spending needs.

**Project Implementation**

With increased delegation of authority for Capital Budget execution, Timor-Leste’s PIM system would have benefited from standard guidelines for project implementation. It is regarded as good practice to have a manual for implementing agencies with project management responsibilities, covering issues ranging from the roles of project managers and contract supervisors, delegations of authority, monitoring of progress, accounting and reporting, project revisions, and arrangements for project completion and post-completion reporting. In an environment where project management staff and local contractors are often unsure of their respective roles and responsibilities, this project management manual—ideally in combination with some training in project management and procurement—could have made a significant contribution to improving the quality of project implementation.

Delays in starting new projects were common because of the lack of project planning. The first quarter and beyond of each new budget year was taken up with addressing project start-up issues (for example, preparing proper terms of reference and costing for procurement) before project implementation could commence. This delay contributed directly to under-execution of the Capital Budget in the first half of each year, particularly given the large proportion of projects that were only of one year duration or less. Project plans from line ministries often did not allow for wet season impacts on projects. This led to significant adjustments compared to original design. As discussed, the Government was trying to address this through more detail on each project at the budget preparation stage.
Funds were available to implementing agencies in a timely manner to spend against their budget allocations. The Government had not experienced in-year shortages of cash, which could have interrupted implementation. This was largely due to the rapid rise in petroleum receipts. MOF gave the authority to spend against their budgets to line ministries in quarterly warrants, starting in January/February each year, following passage of the Budget Law by Parliament. Budget authority does lapse at the end of each year, so a new appropriation was needed for ongoing projects, as noted earlier. In practice, however, the great bulk of projects were less than one year in duration. For major multi-year projects, as discussed earlier, the Infrastructure Fund would allow to ring fence capital resources.

Procurement was a major challenge, despite repeated efforts to reform it through decentralization and recentralization. Concerns over budget execution in 2009 led to the Referendum Package, which exempted small-scale infrastructure works under the package from regular procurement rules. A similar approach was taken in 2010 with the Decentralized Development Project. In 2010 responsibility for larger procurement was decentralized to line ministries (up to $1 million), with oversight from one of the vice prime ministers. In 2011 new arrangements for procurement were introduced. A procurement agent would implement large procurements, overseen by a Procurement Commission. The NDA, under the Prime Minister, would approve ex ante all tender documents for contracts above $1 million and all payments to suppliers based on verification of works.

The changes in 2011 were introduced based on concerns over transparency and competition in procurement. Government policy had incorporated dual objectives for procurement: the efficient and effective procurement of contracts to build new public investments and the development of the local construction sector. The second objective was reflected in restrictions on the use of international competitive tendering and the prevalence of single-source contracts. Certain contracts were restricted to local companies, and in practice, international competition was understood to be limited to larger contracts.

E-procurement, introduced in 2011, was used to introduce greater transparency and to generate reports on a range of procurement Key Performance Indicators. This helped to address the previous lack of information due to the limited reporting on tender awards and because no data were published or available on the number of contracts awarded to international suppliers. Indeed there was an absence of any data on core aspects of procurement performance, such data as average number of bidders, number of sole-source contracts (with or without justification), or the time taken between different stages of procurement.

Large new initiatives introduced in rectification budgets helped to accelerate budget execution, which, along with lack of project preparation discussed earlier, meant that capital spending was bunched at the end of the financial year (figure X.7).
The Government by 2011 developed an effective total project cost accounting system. For government-financed projects, the Free Balance system recorded total costs against projects over financial years. Donor-funded projects, however, were executed through separate banking arrangements outside the Treasury Single Account, and the Treasury could not record and report donor spending during or after the end of the year.

Project Adjustment

MOF by 2011 had strengthened systems to track financial performance of major capital projects. Previously, even though the State Budget had a list of projects in its capital plan, it was difficult to track spending because resources were not appropriated to individual projects. Since 2009 MOF had kept track of spending on individual projects by recording details submitted in Commitment and Payment Vouchers, thanks to the centralized payments system.

The Financial Management Information System of the Government had a Performance Budget (PB) module, which was used by all ministries for budget preparation and monitoring of budget implementation. The PB module could report spending outturns on a daily or intra-daily basis, and was used by Treasury to closely monitor and report budget execution to ministries. In particular, it could report on administrative transfers of funds from one part of the budget to another (virements). It enabled recording and monitoring of virements between line items within Capital and Development (that is, acquisition of buildings, infrastructure assets, and major capital equipment), which are approved by MOF, and thereby allowed improved tracking of capital spending adjustments. Figure X.8 shows that in 2010, the largest virements were underspending on major capital equipment and overspending on infrastructure assets.
In addition to financial monitoring, systems were developed to facilitate closer monitoring of non-financial implementation. The Ministries of Health and Education had capable project implementation units and Excel-based systems to monitor physical progress against milestones. MOI also introduced a web-based Project Monitoring and Control System (PMCS). For each project, MOI Corporate Services staff entered a range of information (for example, responsible Directorate, budgets and contracts, funding sources, procurement details, contractor performance, and physical progress). The system supported uploading of documents required to verify payments and produced a range of management reports on request.

Line ministries were responsible for monitoring project implementation and completion, sometimes delegating these tasks to supervision consultants contracted for the project. Lack of capacity within government meant that most supervision of works projects (aside from building projects) was contracted out to local firms – or to international firms for the largest projects such as the Major Power Project. The Research and Development Division of MOI provided scientific testing services (for example, of soils, materials’ strength, and so on) on demand to project implementers, but it was under-resourced. Project supervisors submitted progress reports to the responsible line ministry (or to the Project Implementation Unit in the line ministry), at times linked to periodic progress payments rather than to regular (that is, monthly) monitoring reports.

No formal process triggered a review of a project’s continuing justification where it was seriously over cost or behind schedule. It is regarded as good practice to have provisions that trigger a reassessment of a project—particularly for large projects—once total cost or time overruns exceed some threshold or the demand for the project’s final services has fundamentally changed. Alternatively, in some countries, a reappraisal is tied to a threshold of tender price over...
the budgeted cost. In the better-performing PIM systems, such reappraisal triggers a review of the continued justification for a project and its possible redesign or even cancellation. There were no such provisions in place in Timor-Leste in 2011.

Asset registers were maintained for some types of assets and in some sectors, and their quality and coverage were improved. The Ministry of Finance developed a centralized register of moveable assets, such as vehicles, used by MDAs, while the Ministry of Justice kept a register of land and buildings. The 2009 Asian Development Bank Roads Master Plan generated details of road infrastructure, but information was lacking on the current condition of many roads, given the extensive damage roads suffer during each wet season. A Japan International Cooperation Agency (JICA) project financed staff surveys of road conditions, and a database was compiled of the most serious defects (requiring emergency repair due to damage from natural disasters) of all main (national) roads as of 2010 (JICA 2011b). In addition, an ADB project had financed surveys of road conditions in three pilot districts.

There were also registers of some assets in the education and health sectors and of irrigation assets. Other sectors were less developed. The semi-autonomous agency that maintained a pool of heavy construction equipment for use by local contractors did not have a register of its assets. When procurement was decentralized in 2008 there was no requirement for line ministries to register assets, and the extent and quality of asset registers generally was not known.

Operations and maintenance (O&M) of newly completed assets was considered to be underfunded, although there was a lack of data to assess the extent of this. The best data on maintenance levels was in the roads sector, where priority seemed to be on construction of new roads and emergency repairs of existing roads. There was a contingency appropriation for emergency road repairs in the 2010 State Budget. The JICA road maintenance project classified national roads and assigned priority based on traffic volumes and other criteria. It estimated that emergency maintenance required expenditure of $31.8 million (JICA 2011b). The project recommended spreading this over five years due to capacity limitations and other constraints, and to simultaneously fund routine and preventative maintenance, which were underfunded. Given the relatively large stock of roads in Timor-Leste, donors confined their support to rehabilitation and maintenance of existing roads, focusing on national roads.

An Asian Development Bank project prepared a road maintenance management system in MOI (ADB 2011). In other sectors, there was some evidence of planning of O&M budgets in relation to planned new capital spending. There was also anecdotal evidence of lack of operations funding, for example, for newly completed schools. However, information was lacking on service delivery levels in relation to desired levels and the level of additional operations funding required.

### Basic Completion Review and Evaluation

There was no general formal requirement for project completion reviews; consequently, there appeared to be little if any basic comparison of total project costs and timelines against
budgets and plans. While some line ministries had a management information system capable of producing reports on average cost and time overruns, ministries did not make effective use of this information.

Supreme Audit Institution provided in the Timor-Leste Constitution had yet to be established in 2011. Setting up a Court of Accounts (an independent High Administrative, Tax and Audit Court, HATAC) had been under discussion for some time, and legislation to establish the HATAC was submitted to Parliament in mid-2011. This would be a judicial body, in the civil law tradition, which meant that in addition to the role of financial compliance auditing and appraising economy, efficiency, and effectiveness, the HATAC would conduct pre-audit inspections (for example, of procurement documents) and would have judicial authority to sanction breaches of PFM laws. Until the HATAC was established, the Budget and Financial Management Law of 2009 provided that the Court of Appeals would receive the annual audited financial statements and accounts from the Minister of Finance and present them to Parliament. In October 2010 the Court issued its first Opinion on the State General Accounts of 2009. Within the limitations of its limited technical resources, the Court considered and ruled that the accounts had been validly provided. There were no findings or conclusions directly relevant to capital spending.

The executive branch appointed an external firm to audit the Government’s accounts, which provided some degree of assurance, but the scope of the audit was restricted. The private firm conducted only a financial audit, with limited compliance, system, and performance aspects taken into account. Individual procurements were not audited. The auditor’s opinion on the accounts was published with the Government’s Financial Statements. However, the management letter provided by the auditor to MOF, with recommendations for improvements, has not been made publicly available since the management letter relating to the 2005–06 accounts. It was understood that recommendations from previous audits had been acted upon by the executive. Parliament did not receive the management letter nor any reports on follow-ups to audit findings.

The Parliament’s oversight role in PIM was still evolving, although some civil society groups did play an active role in monitoring fiscal policy and capital spending. Still, the absence of a Supreme Audit Institution limited the scope of Parliamentary oversight of public finances, as well as the information and capacity available to it to do so. The practice of introducing changes to the legal framework through the use of Executive Decree rather than legislation enacted by Parliament also constrained Parliament’s oversight and review role. Civil society organizations played a particularly active role, however, in monitoring public investment in Timor Leste. La’o Hamutuk is an example of an NGO that actively monitored fiscal policy and public investment projects, particularly the interaction between petroleum revenues and the budget and the Major Power Project. They made submissions to Parliament and published in-depth analysis and commentary. A second NGO, Luta Hamutuk, observed the implementation of individual public investment projects through community-based monitoring.
Conclusions

PIM institutions and policies in Timor-Leste went through major changes between 1999 and 2011. Increased control over domestic resources thanks to the onset of natural resource rents gave the Government more autonomy over prioritization of capital expenditure. It also enabled it to use the Capital Budget to pursue multiple objectives, including consolidating social stability, stimulating economic activity outside Dili, delivering quick results to address urgent infrastructure needs, and encouraging growth of the domestic private sector.

In 2011 the focus shifted to large investments for long-term growth. The Government at that time invested heavily to strengthen PIM capacity. These investments included centralizing appraisal, procurement, and oversight, and strengthening management information systems, particularly for large projects. These efforts should have helped to increase transparency and incentives to deliver better projects. They also involved enhanced support, oversight, and peer learning for small decentralized projects, which should have contributed to improved quality. There would have been some trade-off in terms of speed of implementation for large projects, which is good if it translates to better quality. But implementation would depend as much on capacity on the demand side as on the supply side.
Notes

1. ESI is calculated as 3 percent of petroleum wealth (assumed real rate of return), which is Petroleum Fund savings plus the net present value of projected future receipts. The withdrawal of amounts up to the ESI is expected to maintain the value of petroleum wealth constant in real terms, and it is the amount that can be spent in perpetuity.

2. For more information on decentralization of PIM see Kuehn 2011; Butterworth and Dale 2011; UNMIT 2010; GoTL 2011; Decree-Law 2/2010 (18 February 2010); Decree-Law 18/2011 (6 May 2011).

3. For more information see (1) Road Network Development Project supported by Japan International Cooperation Agency (JICA 2011a): A detailed survey of national road conditions was carried out in 2010 to help identify priority reconstruction needs. The project has helped put together a major road condition database and trained MOI staff to carry out the survey themselves after this one. (2) Ten-Year Master Plan for Timor-Leste National Roads Network supported by the Asia Development Bank (ADB 2009; 2011): This is a plan for road sector investments based on a detailed roads survey, traffic counts, economic analyses, and engineering assessments. (3) Rural Roads Master Plan supported by the EC (EC 2010). This complements the ADB-supported "Master Plan for National Roads" (ADB 2009). Over 700 km of rural roads were surveyed and assessed, and recommendations were made for priority rehabilitation and maintenance work.


References


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