The Philippine Review of Economics
Vol. LIV No. 2, December 2017 pp. 61-87

Philippine policy reforms and infrastructure development: a historical account

Dante B. Canlas*
University of the Philippines School of Economics

Following the restoration of democratic political institutions in 1986, the Philippine government, under a succession of political administrations, has pursued a structural policy reform program on several fronts, both economic and non-economic. This paper assesses some policy reforms in the government's infrastructure development program and the institutional arrangements aimed at implementing such reforms. Some progress has been achieved under the leadership of the National Economic and Development Authority and oversight of the various inter-agency NEDA Board committees, such as the infrastructure, investment coordination, and development budget coordination committees. The enactment of the Build-Operate-Transfer Law, for instance, has broadened and deepened the participation of the private sector in the infrastructure program. At this juncture, however, closing the infrastructure gap, particularly in transport, continues to be a formidable challenge. Major improvements, among other concerns, in procurement and implementation capacities of implementing government agencies, fair allocation of public-private risk bearing in contracts, and elimination of corruption in the approval process at all levels of government, national and local, are indicated.

JEL classification: O18, H54
Keywords: policy reforms, infrastructure development, Philippine history

1. Introduction

I am delighted to be a contributor to this special volume of *The Philippine Review of Economics* in honor of Dr. Amado Castro, the first dean of the UP School of Economics. It gives me an opportunity to revisit policy reforms and the institutional arrangements for implementing those reforms. These themes had engaged Dean Castro during his tenure as a professor of economic history. I had the chance to witness some of the economic policy reforms and obstacles

* The author is a professor emeritus at the U.P. School of Economics.

to implementation while I was on special detail at the National Economic and Development Authority (NEDA)—where I served as a deputy director-general in 1992-1998 and as director-general, concurrently the secretary of economic planning, in 2001-2002.

This paper provides a historical account of a number of important policy reforms geared to infrastructure development in the Philippines over the period 1986-2017. It also discusses issues in implementing those reforms. The public infrastructure program spans several sectors, including transport, water, power and energy, and solid-waste management. Since 1986, six political administrations have in succession committed to sustained economic growth and equitable development, currently referred to as inclusive development. In this regard, infrastructure development is a critical task in the Medium-Term Philippine Development Plan (MTPDP) that every administration in the government issues.

All administrations have been conscious of the importance of broadening and modernizing the infrastructure base of the country. To achieve the goal of inclusive growth, every president upon election commits to carry out a comprehensive package of policy and institutional reforms aimed at enhancing the country's infrastructure facilities. The reforms have been anchored on two major approaches: strengthen tax policy and tax administration to enable the government to increase significantly its infrastructure spending; and strengthen private provision of infrastructure. Actual outcomes over the years have been mixed.

Some seventeen years into the new millennium, much progress has been made. But at this juncture, the country still suffers from a wide infrastructure gap. This has not gone unnoticed. For instance, in 2005, the World Bank in the Philippines published a report entitled *Philippines: meeting infrastructure challenges.* The report was a comprehensive review and underscored the failure of infrastructure development to keep pace with population growth and urbanization. The government acknowledged these inadequacies and high priority was accorded to investment in modernizing the transport system in the MTPDP 2004-2010. That was consistent with the goal of the government to decongest, for instance, Metro Manila and improve access to major tourism destinations all over the country.

Yet in spite of the efforts under the MTPDP 2004-2010 to add several kilometers to the national road system, the NEDA [2010] reported that more investments in roads were called for. As of April 2010, some 22,888 kilometers of national roads had been paved, but that figure represented only 77 percent of total requirements.

The succeeding administration under President Benigno Aquino III (Aquino II), recognizing the limitations of the country's infrastructure, made "accelerating infrastructure development" a vital element of its plan. Like the previous plan, the latter emphasized the importance of expanding access to tourism destinations and decongesting Metro Manila. There was obviously a need to continue improving the transport system. Furthermore, in line with the plan's goal of inclusive growth, affirmative action was emphasized. Examples included infrastructure investments aimed at achieving peace and development in Mindanao and the further expansion of the roll on–roll off inter-island shipping in the Visayas.

While the three political administrations since the publication of the 2005 World Bank report have responded favorably to the issues and concerns of infrastructure development, the latter remains a challenge. That challenge is dictated by economic growth itself, accompanied by rising population and urbanization. A growing population imposes the need to build new roads and to invest in their maintenance. In addition, growth ushered in by technological progress triggers a greater demand for electricity and energy more generally. Sustaining growth also requires the integration of buyers, sellers, traders, and financiers in real time, thereby necessitating further investments in telecommunications and information technology.

In 2016, Rodrigo Duterte won the presidency and promised to ease the traffic problems in Metro Manila that had become serious under the previous administration. Unfortunately, after nearly two years under the Duterte administration, the traffic situation in Metro Manila has if anything taken a turn for the worse.

This paper is an account of the important policy reforms and institutional arrangements designed to promote infrastructure development. It tries to identify constraints to implementation and suggests measures to overcome them. Several factors lie behind the observed gaps in infrastructure, none of which involves a lack of understanding or want of effort on the part of the government. The MTPDP associated with every president has a chapter on infrastructure development.[1] The MTPDP enunciates the main development objectives of the country. Table 1 shows the various presidents since 1986 and the MTPDP associated with each one.

TABLE 1. Medium-term Philippine development plan, 1987-2016

President	Time period
Corazon C. Aquino	1987-1992
Fidel V. Ramos	1993-1998
Joseph E. Estrada	1998-2004
Gloria M. Arroyo	2004-2010
Benigno S. Aquino	2011-2016
Rodrigo Duterte	2017-2022

The inter-agency committee responsible for infrastructure development consists of the secretaries and senior officials from key agencies, such as the

[1] The five presidents since 1986 have each issued a development plan. The National Economic and Development Authority (NEDA), whose head, the director-general, sits in the cabinet as the secretary of socio-economic planning, leads and coordinates the preparation of the MTPDP.

Departments of Public Works and Highways (DPWH), Transportation (DOTr), and Energy (DOE). Participants from the private sector include heads of private organizations, such as the Makati Business Club and the Philippine Chamber of Commerce and Industry. The chairs of federations of non-governmental organizations and civil society groups are also invited to participate in plan formulation.

This paper examines some of the technical, financial, administrative, legal, and judicial risks that hamper the implementation of infrastructure projects. Implementation delays mean that potential beneficiaries incur welfare losses. Meanwhile, addressing the infrastructure gaps has gained urgency. One compelling factor stems from globalization, which has been one of the fundamental changes in the economic environment over the past three decades.

The Philippines is now integrated with the rest of the world economy through trade not only in commodities and services but also in securities and national monies. The country is an active participant in global and regional trade arrangements, such as the World Trade Organization, Asia-Pacific Economic Cooperation, and the ASEAN Free Trade Area. By 2015, ASEAN would have realized its commitment to integrate as a single market under the ASEAN Economic Community agreement. This has led to a clamor, in particular from private industries, to strengthen further cooperation among country trading partners in many areas of concern, including infrastructure development.

2. Public and private provision of infrastructure

Infrastructure's contribution to a country's economic growth and social development is widely understood. As the country gets integrated through roads, bridges, ports, and airports, the buyers, sellers, and other market agents become linked, resulting in mutually beneficial exchanges. Infrastructure supports private production by facilitating the distribution of goods and services. Similarly, it accelerates the industrialization drive of the government. As agricultural productivity is enhanced, supplies of raw materials and intermediate products from agriculture increase, raising the capacity utilization of plants and factories in the cities and other urban areas. Firms in the center get connected to small enterprises in the periphery. Moreover, people residing in the periphery are able to access facilities like schools and health clinics in the center, enhancing social mobility and living standards. Promoting private provision of infrastructure is well advised [Canlas 2006].

2.1. Public provision

Infrastructure facilities are illustrative of commodities with public-good dimensions. They are part of society's social overhead capital. Free markets are not able to provide infrastructure facilities in quantities commensurate with society's total needs. No single agent has an incentive to build them without being fully compensated for the effort. This is true, for instance, in the case of a highway or bridge, both critical in the distribution of commodities. Unless tolls can be collected, it is not in the interest of a private entity to build them. Society, however, demands that they be built. And so the government takes the lead in building these infrastructure using tax-and-spending schemes.

Government spending, however, has to observe a budget constraint. Revenues stem mainly from taxes, particularly, personal and corporate income taxes. The government also levies indirect taxes, such as value-added tax, and excise taxes on some selected commodities like tobacco, cigarettes, and alcoholic beverages. Infrastructure spending is discretionary and competes—with other legitimate public services in health, education, and social security—for budget funds of the government.

There is a growing recognition that the government does not have to be the sole provider of infrastructure. There are cases where the pricing of a unit of service from a specific facility is possible, thereby permitting private provision, and easing the tight budget constraint of the government.

2.2. Private provision

Faced with a tight budget constraint, the government welcomes private provision of infrastructure facilities. This is possible under certain conditions. If user charges can be imposed on an infrastructure service and customers unwilling to pay the price of the service can be excluded, the private builders can recover costs and earn normal profits. Under these conditions, the private sector has an incentive to participate in infrastructure provision. This is the case with toll roads and bridges, as well as terminal fees in ports and airports. Private participation in water utilities and electric power generation and distribution is also feasible, since both pricing and exclusion are feasible.

2.3. Policymaking

Public policy in support of infrastructure development is largely legislated. Tax measures, for example, emanate from Congress. Similarly, private provision of infrastructure calls for legislation. Some projects require a franchise that only Congress has the power to grant. Consider electricity distribution: it is a public utility covered by a franchise. A franchise yields monopoly powers to the holder over a fixed period of time, enabling cost recovery. In addition, private participation in infrastructure is governed by contracts. The rights and obligations of counterparties are defined in the contract. If contractual disputes emerge and are filed in the courts for resolution, the legal and judicial system assumes a key role. A contractual dispute may go all the way up to the Supreme Court. With the legal framework in place, the executive branch leads the implementation process in the entire project cycle. The executive branch designs rules and procedures that evolve and undergo refinements over time. The upshot: all three branches of government have a hand in policymaking for infrastructure development.

2.4. Role of official donors, banks, and creditors

Other agents, such as financing agencies handling official development assistance (ODA), along with private banks and creditors, also get involved in policymaking for infrastructure provision. ODA donors, whether bilateral or multilateral, have conditionality practices that are in the nature of structural policy reforms; they become part of policy once the government signs on. The Asian Development Bank and the World Bank are multilateral agencies engaged in infrastructure finance. In designing projects, they often have conditionality practices attached to their ODA loans. For example, a highway project typically has resettlement policy conditions that are human-rights based. ODA funding agencies also attach some loan covenants, say, for water supply and power generation projects. They incorporate performance indicators for reducing non-revenue losses. Further drawdowns from the loan are contingent on achieving specific targets.

Bank loans normally account for at least 70 percent of project costs, while the remaining 30 percent is equity. No loan, no project. Private creditors, typically a consortium of banks, are concerned, for one, about the proper allocation of risk bearing. Once the private proponent of a project accepts a risk-allocation scheme that creditors approve of, that risk sharing is written into the contract and becomes policy. For a toll road project, for example, the creditors may insist on putting in the contract a parametric formula for automatic price adjustments over the period of cooperation. In addition, creditors are also concerned about judicial risk. The country's legal and judicial framework may be perceived as saddled with infirmities. And so creditors ask for international arbitration outside the court system to be spelled out in the contract, which becomes policy.

Once implementation starts, the executive branch takes over. It institutes rules and procedures to make sure that desired outcomes and benefits from a project are realized. In this connection, it is vital to monitor and evaluate project implementation.

3. Infrastructure development: a historical-political perspective

With the restoration of democratic political institutions under the 1987 Constitution came the urge for policy reforms and new institutional arrangements geared to inclusive growth. In infrastructure, the government, for instance, cannot close the book after building expressways and airports. It must also build secondary roads that link communities to the main highways and airports, as well as roads that connect farms to markets. The enactment of the Local Government

Code in 1994, which provides for decentralization, is worth noting.

Many of the poor in the Philippines are in rural areas, engaged in subsistence agriculture. Poverty elimination requires as a first task raising productivity in agriculture and modernizing that sector. But as agricultural productivity increases, some workers are rendered redundant. To find jobs in non-agriculture, the latter must grow at a sufficiently rapid pace so that new jobs are created and workers released from agriculture find gainful employment therein. Physically integrating rural agricultural and urban industrial areas through infrastructure is critical; a network of all-weather rural roads is most useful in this regard.

Upon assuming the presidency in 1986, Mrs. Aquino started mending the shattered fiscal position of the government by introducing a value-added tax to replace the traditional sales tax. Her administration also succeeded in simplifying the personal income tax system.

Strengthening the internal tax system is essential in view of the reforms in foreign trade policy anchored on import liberalization and tariff reduction, together with the enactment of the Local Government Code, which provides for internal revenue allotments to local government units (LGUs) at various levels based on a distribution formula.

Tariffs on imported goods and other customs duties had been, since the postwar era, a significant source of government revenues. Tariff reduction meant foregone earnings at the border that the Bureau of Customs collected. Meanwhile, the internal revenue allotments that the LGUs would get meant an erosion of tax revenues in the short run for the national government. In 1985, for instance, the share of customs revenues to total revenues was 28 percent, compared to the 70 percent share of internal revenues. By 1997, the share of customs revenues had gone down to 23 percent, while the share of internal revenues rose to 75 percent [Canlas 1998]. Hence, it was an imperative to keep increasing the collection of internal revenues to offset forgone taxes of the national government from sustained tariff reduction and cash transfers to LGUs.

For long-run measures that impact on infrastructure, the Aquino administration caused the enactment of a Foreign Investments Act, which opened several areas of the economy to 100 percent foreign ownership. The areas where full foreign ownership was not allowed were explicitly enumerated in Negative Lists A, B, and C of the law. The Foreign Investments Act was subsequently amended to open up more areas for a 100 percent foreign ownership. The reforms permitted the entry of advanced managerial techniques and production technology from abroad. Furthermore, foreign savings could be tapped for infrastructure financing.

In 1992, Mr. Ramos took over as president. He continued the reform process that Mrs. Aquino started. He expanded the coverage of the value-added tax law and got the comprehensive tax reform program enacted into law, focusing on reforms in personal income and corporate income taxes. During his term, the national government managed to post a surplus in the budget. The tax effort, which is the ratio of tax collection to GDP, increased to 17 percent, an achievement that has not been equaled by any of the succeeding administrations.

Mr. Ramos accelerated import liberalization and tariff reduction. He also reduced the number of industries in the Negative Lists of the Foreign Investments Act, thereby expanding the number of industries eligible for 100 percent foreign ownership. He privatized water utilities in the Metro Manila area. He opened up long-distance and mobile telephone telecommunications to new entrants. By mandating interconnection among mobile phone providers, the sector grew and expanded.

Mr. Ramos rallied the citizenry around "Philippines 2000". The basic notion was the willingness of the Philippines to be a part of the increasing globalization and be internationally competitive. The Philippines acceded to the World Trade Organization, and actively participated in the Asia-Pacific Economic Cooperation and in the ASEAN Free Trade Area. Negotiations with Australia and New Zealand, as well as with Western Europe for preferential trading arrangements were also undertaken.

In infrastructure, faced with an electric power crisis at the beginning of his term in 1992, he got the Electric Power Crisis Act enacted in Congress, which allowed the entry of private independent power producers, thus paving the way for the eventual dissolution of the monopoly wielded by the National Power Corporation (NPC) over power generation and transmission. This ushered in the privatization of the electric power industry.

In 1994, the economy recovered from the electric power crisis, which at its height in 1992-1993, brought brownouts lasting 11 hours each day. The entry of independent power producers ended that power crisis. The economic recovery gained strength from 1995 to 1996. But the Asian financial crisis that was triggered by the sharp depreciation of the Thai baht intervened in 1997. The Philippine economy dodged that crisis as real GDP still managed to grow at about five percent in that year. The policy reforms of the Aquino and Ramos administrations had infused resiliency into the economy.

To sum up, the wide-ranging policy reforms that the Aquino and Ramos administrations implemented helped the economy recover and gain strength from 1986 to 1997, allowing a marked increase in infrastructure spending by government.

Following the completion of the terms of the Aquino and Ramos administrations, hopes were high for a continuation of the reform process. There was a presidential election in 1998, wherein Mr. Estrada emerged as winner. However, in January 2001, these hopes were dashed as the then president, with less than three years in office, was ousted, having been involved in an illegal numbers game. Mrs. Arroyo, then vice president, took over, rekindling some hopes that the infrastructure-related reforms that started in the late 1980s would get back on track and deliver good results.

The Arroyo administration issued MTPDP 2001-2004, which served as the development plan in the remaining years of the unfinished term of Mr. Estrada. The plan committed, for one, to accelerate infrastructure development. It stressed, for instance, the need to stimulate the tourism industry with supporting infrastructure, decongest Metro Manila through new roads and other transport systems that included railways, ports, and airports, and to expand access of every citizen to schools and hospitals.

The international economic environment did not inspire confidence at the time Mrs. Arroyo assumed the presidency. The information technology sector had experienced a shakedown in the US and in the developed countries in Western Europe; that meant a slowdown in the exports of electronics and computer parts, products that accounted for a major proportion of the country's manufactured exports. The shock of 9/11 in 2001 intervened, threatening a further slowdown of the economy. Later on, a public health shock in the form of the severe acute respiratory syndrome hit some countries in East and Southeast Asia, which adversely affected travel and tourism, again with adverse effects on economic growth in the country.

Nonetheless, the Arroyo administration had an auspicious start. In the economic front, real GDP recovered in 2001 from the previous year's deep slowdown. In May of the following year, however, there was an attempted coup d'état that Estrada loyalists instigated. Though the attempted putsch failed, it generated uncertainty that did not help the economy at all.

One of the important policy and institutional reforms the Arroyo administration succeeded in getting through Congress was the dismantling of the monopoly wielded by the NPC over power generation and transmission. Republic Act 9136, known as the Electric Power Industry Reform Act (EPIRA) of 2001, provides for the privatization of the electric power industry.

EPIRA was initially filed in Congress during the Ramos administration; it was finally enacted after being bottled up in Congress for about 11 years, or nearly four congresses. Success in getting the EPIRA law enacted during the first year of the Arroyo administration inspired confidence about her commitment to structural policy reforms. Implementation of EPIRA, however, was very much delayed, particularly the auctioning through competitive bidding of the power generation plants eligible for privatization. That raised doubts about her administration's commitment to reforms.

ODA financing agencies supported EPIRA. The NPC had been dependent on ODA loans for project financing. The loans came mainly from major ODA donors, like the Japan Bank for International Cooperation (which has been renamed the Japan International Cooperation Agency), World Bank, and the Asian Development Bank. However, the NPC consistently failed to meet its loan covenants with ODA donors about improving the agency's fiscal position. In view of those repeated failures, ODA donors advocated the privatization of NPC.

Mrs. Arroyo was re-elected president in 2004. Infrastructure development was still a major challenge. The infrastructure plan, however, suffered a setback after she caused the voiding of a government contract with a private consortium that had built Terminal 3 of the Ninoy Aquino International Airport. Under her leadership, the government filed a case with the Supreme Court seeking nullification of that contract. The government won the case. But it was not costless. The court ordered the government to pay the consortium just compensation for the structure it had built. In addition, the commitment of the government to the principle of sanctity of contracts was dented, with dampening effects on foreign direct investments.

The voiding of the contract for the Terminal 3 project plus the delays in the payment of just compensation to the private consortium have rankled relationships with the government of Germany. One of the biggest partners in the consortium is Fraport, a German company.

Furthermore, allegations of corruption hounded other infrastructure projects of the Arroyo government, such as those involving the North Rail (a rail transport project from Manila to the Clark industrial zone in Pampanga) and NBN-ZTE (a national broadband information-technology project of the national government).

For the North Rail project, the Philippine government obtained a loan from China. The project was far from finished even if the Philippines had drawn down the full value of the loan. After the presidential election of 2010, which Benigno Aquino III won, the project was cancelled. China forthwith asked the Philippines to repay the loan immediately, invoking the government guarantees the Philippines had extended to the project.

The economy recovered in 2001 and gained strength up to 2007. In 2008, the global financial crisis, triggered by the collapse of the sub-prime housing loan market in the US, broke out. That crisis caused a worldwide economic slowdown and recessions in many developed industrial countries. Philippine growth was flat in 2008, which the Arroyo administration tried to counter with a fiscal stimulus plan in 2009. The budget deficit as a ratio of GDP ballooned to 3.9 percent, and a fiscal crisis loomed. To forestall such a crisis, the reformed value-added tax law was enacted. The law raised the tax rate from 10 percent to 12 percent.

In 2010, Mr. Aquino won the presidency, campaigning on a platform of good governance, specifically, fighting corruption in government. Before he could embark on his infrastructure program, his administration undertook a massive review of infrastructure contracts signed during the Arroyo administration. His infrastructure program took off and began to accelerate only in 2012.

The Aquino II administration suffered a setback in relation to government spending for infrastructure and other services. The Department of Budget and Management (DBM) pooled unutilized amounts or surpluses from various government projects in the General Appropriations Act and packaged them into a fiscal stimulus program called the Disbursement Acceleration Program. Petitioners went to the Supreme Court, and asked that the Disbursement

Acceleration Program be declared unconstitutional. The Supreme Court obliged, declaring unconstitutional some of the program's spending, particularly those that were deemed cross-jurisdictional transfers, such as those from the executive branch to the legislative branch.

In any event, the payoffs from good governance seem evident. Real GDP growth averaged about seven percent in the first two years under the Aquino II administration. In 2014, despite a spate of natural disasters, real GDP growth averaged six percent. In the annual report of the World Economic Forum entitled *Global competitiveness report 2014-2015*, the Philippines ranked 52nd out of 144 economies, compared to 59th out of 144 economies in the previous year. The report highlighted the fact that the Philippines had leapfrogged in the fight against corruption since 2010, one of the measures of international competitiveness.

Furthermore, sovereign debt gained investment grade in 2013. The government budget constraint eased as the risk premium on sovereign debt declined. Debt servicing of the government decreased as a result.

Rodrigo Duterte was elected and assumed the presidency in June 2016. He promised during the campaign period to solve the traffic congestion in Metro Manila in three months. He has been in office for about 18 months, but the traffic problem is still unsolved. He announced a significant increase in infrastructure spending, but his original tax reform bill to support the spending is not likely to be enacted. A dampened version can only be expected.

Summing up, the Philippines has implemented, under a succession of political administrations, a significant number of economic and social policy reforms since 1986. The weakest link has been in fighting corruption and instituting good governance, which has hampered infrastructure development. It seems clear, however, that good governance must extend beyond the national government. Under devolution, the LGUs play an important role in infrastructure development and other services. Many LGUs are notorious for delayed issuance of building permits, for instance, a concern crying out for reforms.

4. Legislation for infrastructure development

The body of legislation that Congress has enacted in support of infrastructure development includes specific tax measures and private participation through Build-Operate-Transfer (BOT) and its variants.

The economic rationale for tax reform emanates from traditional principles of public finance. The first principle is in pursuit of efficiency. A simple tax system is preferred to facilitate collection. If the tax structure is cumbersome, it opens up opportunities for evasion. The wealthy hire accountants and are able to reduce their tax burden considerably.

One preferred strategy rests on broadening the tax base to obviate the need to raise tax rates. A low tax rate lessens the incentive to evade taxes. To the extent that more individuals are encouraged to pay taxes willingly, opportunities to reduce tax rates open up, in particular, for personal income and corporate income taxes in the case of direct taxes.

For indirect taxes, raising tax rates for specific products is advisable provided the inelastic portions of the demand for the products are not exceeded. As a manufacturer shifts the tax to the selling price of the product, the percentage decline in quantity demanded falls short of the percentage increase in the price from the tax increase, resulting in greater tax collection.

Discussion of tax measures generally brings up issues of equity, whether vertical or horizontal. Vertical equity refers to how people in different income groups should be taxed. The tax measure is often based on ability to pay, resulting in progressive tax rates. That is, marginal tax rates tend to increase as income increases. Horizontal equality is well understood. Similarly situated individuals are subjected to the same marginal tax rate.

Enhancing government revenues through the tax system is often a lengthy and trying process. Under the Philippine Constitution, all tax measures must emanate from the House of Representatives. Since tax increases repel voters, members of House of Representatives are not very enthusiastic when it comes to tax-enhancement measures for fear of losing votes come election time. To help hasten enactment, tax bills filed in Congress are often administration-certified. Meanwhile, enterprises frequently oppose increases in indirect tax rates, such as the value-added-tax rate, if the new rates result in an increase in the relative price of their products. This was seen, for instance, during the public hearings for the bill adjusting the excise taxes on cigarettes and alcoholic beverages.

In addition to specific tax measures, to help ease the budget constraint for infrastructure projects, the government looks to private provision as a complementary measure. In 1989, Congress enacted Republic Act 6957, popularly referred to as the BOT Law. This law was amended in 1993 by Republic Act 7718, which expanded the opportunities for implementing BOT-type projects. The amended BOT law has since becom e the legal framework for private provision of public infrastructure projects.

There is another important economic consideration for private provision of public infrastructure. The marginal cost of public funds in the Philippines has been greater than one. This means that it costs society more than a peso to raise a peso of tax money. Both direct and indirect factors are at work herein. According to Laffont [1994], citing World Bank figures, the marginal cost of public funds in the Philippines is 2.48. Society pays ₱2.48 to raise a peso of tax money, arising from deadweight losses and other distortions caused by taxation.

One example of a sector-specific law that enhances private provision is the EPIRA, the law that restructures the electric power industry. One of the intensely debated issues during public hearings focused on whether or not vertical integration of power generation and distribution was to be allowed. It was allowed, but the law puts a cap on ownership of power generating plants by power distribution utilities.

Furthermore, Republic Act 9184 gathered in one place the procurement activities of the government. The law is described as the "Government Procurement Reform Act", an act providing for the modernization and regulation mainly of the procurement activities of the government. It adheres to transparency and competitiveness, among other principles of good governance. The law seeks to eliminate ambiguity and loopholes in government procurement of goods and services and minimize corruption, but it has not been fully successful in this regard.

5. Implementation and institutional arrangements

Although the Philippines has made significant progress on the fiscal front since 1986, the country's infrastructure base at this juncture still lags behind those of some of its neighbors in the ASEAN region. The situation has been noted (World Bank [2005]; Llanto [2010]). And so the Philippines is still in a catch-up mode. In this connection, the executive branch has to address many implementation challenges that have hampered infrastructure development. Problems have been encountered at the technical, financial, administrative, legal, and judicial levels.

At the technical level, for instance, many implementing agencies of government lack the expertise to formulate projects, and as a result, often depend on private agents for feasibility studies. This opens up conflict-of-interest issues since these private agents tend to participate later on in bidding for the right to construct. The situation offers advantage over other bidders who have had no involvement in pre-construction activities.

One capacity that implementing agencies have to develop is contract writing. Ambiguous contract provisions can lead to contractual disputes that delay implementation. A contractual dispute opens up opportunities for the court system to intervene, which can be a lengthy process. To avoid court proceedings, contracting parties insert arbitration provisions. But this is usually a very expensive process; fees paid to arbitrators are high and quite burdensome to governments of low- to middle-income countries.

With a legal framework and policies in place, the executive branch formulates the institutional arrangements for implementation, along with the procedures for screening and approving projects. The respective roles of the NEDA Board (NB), NEDA Secretariat (NS), and the NB inter-agency committees are critical with regard to choosing project priorities, screening and approval.[2]

The NEDA is the socio-economic planning agency of the national government. It plays a coordinative role in fiscal planning and infrastructure development through the various inter-agency NB committees. Central to these major functions

[2] This section draws heavily from Canlas [2014].

are the Development Budget Coordination Committee (DBCC), Investment Coordination Committee (ICC), and the Infrastructure Committee (Infracom).

The Philippine president is the chairman of the NB. The director-general is head of the NS and sits concurrently as secretary of socio-economic planning in the cabinet. The implementing agencies that are NB members include the Department of Agriculture, Department of Trade and Industry, DPWH, DOE, and DOTr. The key oversight agencies, namely, the Department of Finance, DBM, and NEDA are all in the DBCC and ICC. The DBCC is chaired by the DBM, while the ICC is chaired by the Department of Finance and co-chaired by the NEDA. The NEDA chairs the Infracom.

In 1987, Pres. Corazon Aquino reorganized the NEDA through Executive Order 230, also known as "The Reorganization Act of the National Economic and Development Authority". This executive order mandated NEDA to be the coordinating body for economic and social policies. Under martial law, the Office of the President exercised much of the decision making on socio-economic policies, with minimal delegation of authority to national government agencies.

The NEDA reorganization in 1987 was designed to strengthen the various NB inter-agency committees, and raise the capacity of the NS to undertake technical analysis in aid of decision-making at the level of the NB committees. Moreover, it was to end the monopoly of the Office of the President over policymaking and systematize project evaluation, a task that was assigned to the NS.

The NS recommends policies to the President. It has a trilogy of functions: policy and planning; investment programming; and project evaluation and monitoring. In line with these functions, it is responsible for the preparation of three documents: the MTPDP and the socio-economic report of the President.

The Medium-Term Public Investment Program is a companion document of the MTPDP and spells out the priority sectors and sub-sectors—such as education, health, and infrastructure—where the government has a legitimate role to play. Fund allocations to these sectors and subsectors are indicative in the Medium-Term Public Investment Program.

The socio-economic report of the president is a monitoring device; it is published annually, tracking annual performance in relation to the targets spelled out in the MTPDP. In case actual figures show performance lagging behind targets, mid-term corrections are introduced to try to get the economy back on track. The NS coordinates various policies of the national government aimed at ensuring that short-run macroeconomic policies do not compromise long-run growth objectives.

5.1. Development Budget Coordination Committee

The DBCC is responsible for formulating the annual budget submission of the Chief Executive to Congress. The DBM chairs this committee. The DBCC is supported by a technical board composed of senior officials drawn from the

DBM, Department of Finance, NEDA, and the *Bangko Sentral ng Pilipinas*.[3] The cabinet secretaries in the DBCC are the first to be called by Congress once budget deliberation in Congress starts. The president's budget message articulates the priority spending and revenue raising activities of the national government.

5.2. The Investment Coordination Committee

The ICC is another important inter-agency committee of the NB. Its main task is to coordinate fiscal, monetary, and exchange-rate policies of the government and to prevent debt crises similar to what hit the Philippines in 1983 when it defaulted on its foreign debt.

The Department of Finance chairs the ICC cabinet committee, with a technical board headed by an NS undersecretary. The public investment staff in the NS provides secretariat support to the ICC. A major task of the ICC is to evaluate large capital projects of the government such as infrastructure projects. Projects subject to ICC review are those costing at least US$5 million. All foreign-assisted projects are subject to ICC review.

The objective of an ICC review is to ensure that public projects are socially efficient. Implementing agencies of the government, such as the DPWH and DOE, submit their major projects to the NS for review. Having done the project evaluation, including cost-benefit analyses and feasibility studies, the task of the ICC is to confirm the technical studies that the implementing agencies submit to the NS.

5.3. The Infrastructure Committee

The Infracom endorses to the ICC all priority infrastructure projects of the national government. The biggest infrastructure agencies like the DPWH, DOTr, and DOE are asked to submit their master plans. All proposed projects must be consistent with the master plans. The DPWH, for instance, submits a master plan for arterial roads traversing the country north-to-south and east-to-west. The DOTr has master plans, for instance, for airports and ports.

It is widely agreed that the Philippines needs to raise its public spending for infrastructure development to support long-run economic growth. Many observers point out that the Philippines allocates only about 2.5 percent of its GDP for infrastructure; most other countries in ASEAN are already spending about five percent.

In many instances, the national government at various levels is expected to provide infrastructure in several sectors, including, transport, telecommunication, and electric power. With devolution, the LGUs take care of secondary and rural

[3] In the presidential system of the Philippine government, the head of a cabinet department has the title of secretary; next in rank are the undersecretaries and the assistant secretaries.

roads. The DOTr devolves municipal ports to LGUs. Electric power generation and distribution is privately provided. The NPC is responsible only for small power generating units.

Recognizing that private provision is a genuine option, the government has enacted a BOT Law as an incentive to the private sector to participate in the infrastructure program of the government. BOT projects are covered by contracts that spell out the period of cooperation between the government and the private partners. During the period of cooperation, private investors are expected to recover the amount they invested with normal profits. At the end of the cooperation period, the facilities are turned over to the government.

Subsequently, the BOT was amended to expand the coverage, adding even social projects like school buildings and public food markets to the list of eligible projects. Unsolicited BOT projects were also included, in which a private group can propose projects to the government, but it must be willing to have the projects subjected to a competitive bid challenge.

The BOT Law and its amended version have permitted projects that include light railway mass transits, airports, and expressways, and water and power utilities. BOT represents one form of a public-private partnership (PPP) that is helping the government advance its infrastructure program. Since infrastructure projects are capital intensive, they absorb much of the discretionary amounts in the national government budget. The trend towards the use of PPP has been helpful in easing the tight budget constraint besetting the government's infrastructure program.

The NEDA director-general is the chair of the Infracom. A technical board also assists it. The infrastructure staff of the NS provides secretariat support. The secretaries of DOE, DPWH, and DOTr are represented in the Infracom. All BOT projects, meanwhile, are to be subjected to ICC review and approval process.

While policies in support of infrastructure development have moved forward significantly, one form of risk continues to pester. All infrastructure projects, whether by BOT or its variant, are covered by contracts. In this regard, contractual disputes may arise, bringing the courts into the process. Several integrity-related questions have been raised about the courts. To this day, there is lingering doubt about the fairness of the judicial process designed to adjudicate contractual disputes.

To raise the success rate of the infrastructure program of the government, judicial reforms are likewise essential. Judicial impediments have included the penchant of some judges to issue a temporary restraining order sought by disgruntled losing bidders. Some judges do this despite an order that has been issued by the Supreme Court forbidding lower courts from issuing such temporary restraining orders.

The Infracom has progressed a great deal as a collegial body that reviews and approves major infrastructure projects. But unless efforts to reform the judiciary succeed, delays in implementation of major projects are bound to occur.

Similarly, bidding procedures consistent with the law on government procurement must be instituted at the LGU level. Any success at the Infracom level must be replicated at the sub-national government level.

5.4. Setting project priorities

With government revenues posing a binding constraint on choice of infrastructure projects to implement, a system of prioritization is vital. In reviewing a project for possible implementation, the first question the ICC asks the implementing agency pertains to the development rationale for the project. In other words, what social objective stipulated in the MTPDP is being served? For example, a road project may be in the service of "decongesting Metro Manila", a major output in the performance contract with government of cooperating agencies like the DPWH and DOTr.

In addition, if the project is to be regarded as a public investment, the next question relates to where it lies in the priority sector or sub-sector of the Medium-Term Public Investment Program. For instance, in view of rapid urbanization, where people have to be moved in bulk on a daily basis, the priority accorded to a rail project may exceed that of a road project.

Furthermore, the ICC asks whether the project is to be implemented as a purely government undertaking or as a PPP. A BOT project or its variant is admissible under PPP. The importance of a PPP mode of implementation to complement internal financing through the national government budget has been noted above. In this connection, the ICC asks the implementing agencies to submit their estimates of the private and social rates of return of the project. If the private exceeds the social rate of return, then the project is a viable candidate for BOT; otherwise, the project is recommended as a project of the government. The government then taps ODA loans if it decides to internally finance the project via the government budget. ODA loans have concessional, not commercial, rates, and have a longer tenor with a grace period for repayment.

Lastly, the ICC asks whether the agency has accommodated the proposed project in its budget ceiling. The last query determines whether the project gets into the National Expenditure Plan, which is the annual spending portion of the General Appropriations Act that Congress enacts. The General Appropriations Act governs the spending and disbursements of all agencies under the direction of the DBM, and it also states the revenue program of the government. If expenditures exceed revenues, the General Appropriations Act spells out the financing of the resulting deficit, typically through national treasury borrowings from the public, whether domestic or foreign.

6. Illustrations from the 2001-2004 and 2011-2016 programs

In choosing sectors and sub-sectors, this section illustrates the prioritization and implementation procedures described above starting with the MTPDP 2001-

2004, which the Arroyo administration released as its development plan for the unfinished term of Mr. Estrada [NEDA 2001]. Unlike other plans, it incorporated both the MTPDP and Medium-Term Public Investment Program, and listed some specific projects in some sectors, such as transport.

The sector and subsector priorities in MTPDP of the previous Aquino II administration remains the same since the gaps in them take several years to narrow down and complete. A single administration cannot hope to complete all priority infrastructure projects. This is where the institutional arrangement under NEDA is useful. Continuity is maintained through the various inter-agency committees of the NEDA Board.

The infrastructure program covers several sectors and sub-sectors, such as transport, which includes land, sea, and air. One other sector is energy and power, a major program in which is the development of natural gas, following the successful implementation of the Malampaya deep water gas-to-power project. Another key sector is water resource development, with sub-sectors that cover water supply, sewerage, and sanitation, irrigation, and flood control.

6.1. Land transport

The drive for international competitiveness is a constant motivation to improve road quality. According to DPWH figures [NEDA 2001: Table 6.1, page 84], in ASEAN, the Philippines paved road ratio, defined as the length of paved roads over the total length of roads, was only .21 in 2000. It lagged behind the road ratios (in parentheses) of Vietnam (0.35), Indonesia (0.47), Malaysia (0.74), and Thailand (0.82). This is a major factor for giving priority to road projects.

The Philippines has a total road network of 171,956 kilometers, and about 85 percent of this total constitutes provincial, city, municipal, and barangay roads. Under the Local Government Code, LGUs are responsible for these local roads. The paved road ratio for local roads is only about 15 percent compared to 0.21 for the national roads.

In view of rapid urbanization, the government places high priority on transport that addresses urbanization concerns. For instance, in the major urban areas of Manila, Cebu, and Davao, traffic congestion continues to irk motorists. Traffic jams mean foregone productivity and earnings. Hence, in urban areas, particularly, Metro Manila, rail gets priority over road transport. Rail beats road in moving people in bulk. And so in Metro Manila, part of the plan is to complete the light railway transit lines.

But some road projects in Metro Manila, such as expressways in major thoroughfares are still in the priority list. In this connection, smart traffic signal facilities are to be installed. Some interchanges are to be constructed where use of traffic signals unduly delays the flow of traffic.

In order to spread progress from the center to the periphery, the government lists priorities for rural and secondary roads. A network of farm-to-market roads is identified in support of agricultural modernization. Interregional roads are also prioritized to support tourism development in the countryside.

6.2. Water transport

Water transport, however, is nothing to sneeze at. The Philippines is an archipelagic country. The government encourages private operators of inter-island vessels to re-fleet in line with quality improvements. Re-fleeting is a private sector undertaking. One incentive is to put up relending facilities in government banks for lending to the private sector engaged in fleet improvement. Under this scheme, the government taps ODA funds, courses the funds to a government financial institution, such as the Land Bank and the Development Bank of the Philippines, which relend through participating banks that retail the loans to private operators of inter-island vessels.

The government identifies in the plan the list of ports to be developed with the help of the Philippine Ports Authority, a government corporation engaged in both provision and regulation. Examples of such ports are the Manila North and South Harbors, and in the province, there is the Batangas port in Southern Luzon. The government also incentivizes the construction of new ports by offering private port operators some technical and financial assistance in preparing master plans and feasibility studies.

The implementing agency for roads, highways, and bridges is the DPWH. One of the major obstacles is securing right-of-way, particularly in urban areas where informal settlers abound. Rapid migration from rural to urban areas has created squatter colonies. To move these settlers out, the law requires the government to look for suitable relocation sites and to give disturbance allowance during resettlement.

For rail and water transport, the DOTr and its attached government corporations like the Light Rail Transit Authority in Metro Manila and the Philippine Ports Authority are in charge. Rail transport frequently confronts similar right-of-way problems.

6.3. Energy projects

The MTPDP 2001-2004 emphasized self-reliance, that is, increasing the share of indigenous fuel and renewable energy sources. The task included enacting relevant laws, which occurred in the middle of the 2000s. The Biofuel Act and the Renewable Energy Act were enacted. Price support to renewable energy sources, such as wind and solar, was to be achieved through feed-in tariffs intended to hold over a definite period of time. Feed-in tariffs are designed for cost recovery with normal profits.

Concern about the high cost of electricity in the Philippines compared to those in many of the East and Southeast Asian countries gave priority to energy projects that would reduce the generation and transmission costs. For energy, the DOE is in charge of projects.

Exploration for new sources of natural gas was a priority, since gas-fired power plants now account for 1,700 MW in Luzon. The Malampaya gas is scheduled to run out in 2023. In the works would be liquid natural gas import terminals with regasification and storage facilities.

The DOE is responsible for the development of energy projects in partnership with the private sector. The main challenge emanates from the high development costs. For example, oil exploration is assigned to the Philippine National Oil Corporation, a government corporation attached to DOE. This type of exploration has a high set-up cost with low probability of a successful discovery. Designing the proper set of fiscal and other incentives is critical in "crowding in" the private sector.

6.4. Water resources

A priority sub-sector is water supply, sewerage, and sanitation. The focus areas are Metro Manila and provincial areas, whether rural or urban.

In Metro Manila, which is served mainly by the Metropolitan Waterworks and Sewerage System (MWSS), the task is to institute policy refinements that ensure smooth implementation of the privatization of water supply that was won by two private concessionaires: Maynilad Water and Manila Water. Meanwhile, the government continues to support development of water basins, such as the Laguna Lake Development Authority, that would serve Metro Manila.

In irrigation, priority was to be given to projects that promote the goals of the Agriculture and Fisheries Modernization Act. The emphasis on inclusive growth, growth whose benefits are within reach of every Filipino, has put irrigation projects in the front burner.

The government agencies responsible here are the DPWH and cooperating agencies like Local Water Utilities Administration, together with the local water districts, the Department of Interior and Local Government, and the Department of Health. The authorities responsible for water-basin development are also in the loop.

Implementation challenges have included right of way, financing of water districts, and contract writing with water concessionaires as well as regulation of the latter's operations, such as those based on return-on-rate base regulation.

6.5. Rate of return criteria for implementation

The rate of return on an infrastructure project serves as a guide in determining whether the project is to be implemented by the government or tendered to the private sector. If the social rate of return exceeds the private rate of return, then the government takes the lead for the project. But in the opposite case, a BOT or its variant may be tapped. The private sector normally invests only up to the private rate of return, that is, what it is able to capture. If the social rate of return is higher than the private rate of return, then underinvestment is likely, since the private sector is not compensated for benefits that the rest of society captures.

The ICC thus requires the implementing agency to estimate both private and social rates of return of a proposed project. The ICC secretariat exercises oversight by ascertaining that the methodology used by the proponent agency in estimating these rates of return is proper.

6.6. Market vs. non-market provision

The work of the various inter-agency committees of the NEDA Board is driven by the absence of market prices to guide choice of projects. Project evaluation based on shadow prices of project inputs and estimation of costs and benefits are resorted to in order to estimate financial and social rates of return.

Since government has social objectives, such as a clean environment, it estimates costs and benefits for projects with environmental implications using shadow prices. The government has to integrate social objectives in project evaluation since it is well understood that people are interested not only in monetary income but also in, say, clean air and water supply.

6.7. Other criteria for project approval

In addition to project evaluation and cost-benefit analysis that yield private and social rates of return and cost-benefit ratios, the ICC also asks for a Certificate of Social Acceptability, an endorsement from the Regional Development Council, and an Environmental Compliance Certificate from the Department of Environment and Natural Resources.

A major implementation risk is the presence of informal settlers or indigenous peoples on project sites. The Certificate of Social Acceptability seeks to find out whether there are right-of-way issues that may delay implementation. Once time overruns occur, cost overruns are bound to follow. The latter could delay project implementation in so far as the implementing agency needs to go back to the ICC for the authority to get some supplemental budget.

The Regional Development Council sees to it that proposed projects are consistent with local development plans of LGUs sitting in the council. The council also wants to find out if national government aid is warranted for some projects. For example, a road may traverse a number of jurisdictions with positive-externality effects. It may petition the national government for financial support as a result.

The Environmental Compliance Certificate is required under the principle of sustainable development. A proposed project is not approved unless it satisfies air, water, and land emission standards. The Philippines has established some environmental standards, such as those in the Clean Air Act, and has acceded to some UN Conventions on the Environment. The certificate is intended to monitor compliance with these standards.

6.8. Private provision

BOT infrastructure projects, whether solicited or not, are evaluated by the ICC. Clearly, the private rate of return must be high enough to exceed its weighted average cost of capital. Otherwise, the private sector will not be interested.

The private proponent may ask for some government undertaking, say, the civil works for a rail project. The Department of Finance looks at this request and must approve it. If the project is solicited, then it is subjected to competitive bidding. Once the winning bidder is issued a notice-to-proceed, it has to seek financial closure with its creditors. Once this is achieved, then implementation begins.

One government undertaking is right-of-way. The government has powers of eminent domain. Still it has to observe existing laws on right-of-way that have been passed, such as provisions for relocation of informal settlers and indigenous people with ancestral domain rights. Government financial guarantees to a project are sometimes given, but this is on a case-to-case basis.

Unsolicited BOT projects refer to those that are not in the priority list of the government. To be considered they must not ask for any guarantee, direct or indirect. The ICC may accept these projects, but they have to be subjected to a bid challenge. The original proponent is accorded the right to match the bid of the challenger.

7. Evaluation and monitoring

This section discusses the outcomes of some projects that illustrate some of the difficult challenges encountered with the policy reforms for infrastructure development. Most of the problems encountered are related to private participation. The downside is that expected outputs and benefits from the project are not realized within the time frame envisioned for the completion of the project.

The agencies involved in evaluation and monitoring are the implementing agencies in charge of the project and oversight agencies like the DBM and NEDA. During the approval process for a particular project, timelines with milestones are spelled out. Both physical and financial accomplishments are monitored by the implementing agency. The NEDA and DBM, in pursuit of their oversight functions, also track physical and financial accomplishments for which indicators exist. The NEDA conducts an annual review of ODA-funded projects.

Recently, there has been an upsurge of interest on whether projects are delivering on their intended benefits to target clients. This has given rise to impact evaluation, with indicators for improving human welfare.

7.1. Monitoring infrastructure projects

One of the major tasks of the NEDA is project monitoring, including financial disbursements and physical accomplishments. In this task, the project monitoring staff of the NS is the lead. It works closely with the NEDA regional offices in monitoring outcomes of projects. The NEDA regional offices are secretariat to the Regional Development Councils, which consist of local government executives.

In this connection, the NS has been getting a lot of support from ODA donors since 2005, after donor and client countries acceded to the Paris Declaration for Aid Effectiveness. The latter stresses country ownership and mutual accountability, among other principles, for foreign aid-assisted projects, infrastructure and otherwise.

7.2. Water supply

One of the important accomplishments of the Ramos administration is the privatization of water supply, sewerage, and sanitation in the Metro Manila area. The MWSS has long been a government corporation providing water supply services in Metro Manila. Its service delivery had been inferior, with water supply coverage lasting only a few hours in a day in many of the concession areas. It was a losing company, drawing net credit and advances from the national treasury to tide it over. Financing of its projects came largely from ODA loans. In view of MWSS's recurrent losses, donors forged loan covenants in which MWSS committed to reduce its system losses and its so-called non-revenue water. MWSS failed in meeting the performance indicators in these covenants.

Two private concessionaires won the right to operate water supply service in Metro Manila: Manila Water and Maynilad Water. In 1997, the Asian financial crisis broke out. The peso depreciated significantly. The two water concessionaries had taken over the foreign debt of MWSS; the peso depreciation raised their foreign debt obligations in peso terms substantially. The government allowed accelerated recovery of their foreign exchange losses with some contractual amendments.

The problem that the two concessionaires faced was an external one—the Asian financial crisis. With government help, through a reopening of the contracts with concessionaires, Manila Water was able to overcome the challenge. The new owners of Maynilad at this point seem to be doing well financially, too. The financial crisis hampered the capital improvements and delayed realization of the benefits to stakeholders. Nonetheless, the problem of limited service coverage has been solved. Most areas in Metro Manila are now getting 24-hour coverage, to the satisfaction of clients, both households and business enterprises.

The MWSS, meanwhile, is no longer engaged in water supply provision. It is mainly an oversight body monitoring the two concessionaires and setting standards for the service. It also supervises the regulatory agency that has been established after privatization. It leads in the conduct of rate rebasing, which is done every five years as stipulated in the concessionaires' agreements.

7.3. Terminal 3 of the Ninoy Aquino International Airport

This was an unsolicited proposal under the amended BOT law. It started during the Ramos administration. A group of Filipino-Chinese taipans proposed it. During the Estrada administration, it was subjected to a bid challenge from a consortium that included Fraport, an airport company from Frankfurt. The bid challenger won. The taipans had the right to match but declined to do so. And so the new consortium called PIATCO that had Fraport as a partner was given the notice to proceed.

PIATCO was able to complete construction of Terminal 3, but during the time of the Arroyo administration, the government sought to have its contract voided and won the case in the Supreme Court. The latter, however, ordered the government to pay PIATCO just compensation, which has not been settled because the parties sought arbitration at a substantial cost to the government in legal fees.

On July 31, 2014, the Aquino II administration was able to convince major airlines like Delta, Cathay, and Singapore Air to finally transfer to Terminal 3. It is hoped that the Terminal 3 case is finally over, and the expected full benefits to stakeholders would finally be realized after a delay of about 17 years.

The risk in this case was a judicial one. The voiding of PIATCO's contract delayed the project unduly with profound losses to the government.

7.4. EPIRA

The EPIRA law ended the monopoly of NPC over power generation and transmission, and essentially privatized the electric power industry. The power generating assets of NPC were turned over to the Power Sector Assets Liabilities Management, which has been auctioning the NPC power plants. After some delays, the institution got on track and was able to bid out the major power plants.

Transmission continues to be a public utility, but it could be assigned to a private concessionaire through competitive bidding. A consortium of local and Chinese investors runs the National Grid Company of the Philippines today.

Just like MWSS, NPC experienced long years of losses, and its creditors, mainly ODA donors, advocated privatization of NPC. Under EPIRA, NPC is limited to operating small power generating plants.

EPIRA has succeeded in Luzon. The benefits, however, for Mindanao are still to be realized. Mindanao was exempted temporarily from EPIRA. The NPC continues to run large hydroelectric power plants there. Maintenance of the hydroelectric plants is, however, costly; the NPC as a result has not been able to maintain these power plants properly. Mindanao continues to experience brownouts nowadays.

The risk to electric power supply in Luzon emanates from the delays in adding generating capacity on account of protests from environmental groups, not to mention the judicial risk. In Mindanao, stakeholders must realize that cheap electricity from hydropower is not permanent. They must accept the fact that additional generating capacity from new power plants like coal-fired ones will end their brownout problems, provided they are willing to pay more for electricity than what they are paying now.

7.5. DBM and project monitoring

In 2007, the DBM rolled out its Organizational Performance Indicator Framework. This is a framework for results-based budgeting, in which sector and societal outputs are to be linked. Are infrastructure agencies of government delivering outputs that benefit society in the large? The DBM works with NEDA and the Commission on Audit (COA) in promoting the framework.

The DPWH, for instance, submits a logical framework that starts at the top with a societal output, say, inclusive growth. Its programs and projects are supposed to serve the societal output. The DPWH, for example, commits under its road program to improve access to production areas and markets.

The DOTr, meanwhile, commits to integrate its land, sea, and air transport program to integrate markets in various regions of the country. Buyers and suppliers are able to carry out transactions efficiently, contributing to mutually beneficial trades and growth.

7.6. NEDA and project monitoring

The NEDA as the dialogue partner of ODA donors conducts an annual monitoring and review of ODA-funded projects. The review identifies problems that tend to delay implementation. Road projects, for instance, often encounter right-of-way problems. In addition, during times of tight budgetary constraints, the DBM is not able to raise the budget ceiling of infrastructure agencies to be able to accommodate all ODA-funded projects. Furthermore, ancestral domain issues often delay projects like reforestation.

To address problems that hinder implementation, the NEDA conducts regular dialogues with ODA donors together with the DBM so that agencies can, for one, be allocated funds for right-of-way, especially the DPWH. The NEDA and DBM also undertake prioritization exercises intended to see if foreign-funded projects are better prepared for implementation compared to locally funded projects.

In 2005, several countries and ODA donors signed the Paris Declaration for Aid Effectiveness. Several principles are included in the declaration, including country ownership and mutual accountability. This document seeks to improve project outcomes, especially ODA-funded ones.

8. Concluding remarks

Policy reforms for infrastructure development in the Philippines have been evolving since 1986. The political administrations have in succession underscored the importance of infrastructure development in the MTPDP.

Important progress has been made, but the infrastructure gap, especially in transport, is a formidable challenge. The capacity of many implementing agencies must be raised constantly over every stage of the project cycle. The legal and judicial framework needs to be revisited to minimize the risks in this regard.

Government revenues from taxes need to be enhanced to finance the planned increase in infrastructure spending. Government procurement for goods and services cries out, both at the national and local government levels, for reforms aimed at avoiding delays.

The Philippines has made much progress with the policy reforms for infrastructure development. It has opened up an important role for the private sector, not only in bidding to construct facilities but to actually operate them. Public-private partnership for infrastructure must be pursued with vigor. Pursuit of good and effective governance, such as eliminating corruption in government procurement, is by no means complete at this point.

Acknowledgments: The first draft of this paper was presented in the 2014 KRI-KDI special workshop on “Build a new platform for national development: sharing experiences between Southeast Asia and Korea”, that was held in Yangon, Myanmar. I thank, without implicating for any remaining errors, the late Prof. Chung-Sok Suh, who was the lead organizer of the workshop, and participants in the 11.5 pt workshop for many helpful comments. Since then, the paper has been evolving; several colleagues, too many to be cited here, have commented on various drafts of the paper.

References

Department of Budget and Management (DBM) [2007] *Organizational performance indicator framework*. Manila, Philippines.

Canlas, D. [2006] “Private supply of public goods: some considerations from the economics of regulation and incentives for the Philippine transport sector”, Working Paper, University of the Philippines School of Economics.

Canlas, D. [2014] “Reforms for infrastructure development in the Philippines: the role of the National Economic and Development Authority", Paper presented at the 1st KF-KRI International Symposium on Comparative Public Policy Research held at Yangon.

Canlas, D. [1998] "Asian tax reforms: issues and results", conference proceedings, Hitotsubashi University, Tokyo.

Laffont, J. [1994] "Regulation, privatization, and incentives in developing countries", Paper presented at the Third ADB Conference on Development Economics. Manila: Philippines.

Llanto, G. [2010] "A review of Build-Operate-Transfer for infrastructure development", Monograph, Philippine Institute for Development Studies. Makati: Philippines.

National Economic and Development Authority (NEDA) [2001)] *The medium-term Philippine development plan 2001-2004*. Manila: Philippines.

World Bank (WB) [2005] *Philippines: meeting infrastructure challenges*. Manila: Philippines.