



# Policy Brief

SENATE ECONOMIC PLANNING OFFICE

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*The national government's infrastructure-led development strategy is well intended and seems to be on the right track. However, there remain a number of challenges that must be hurdled before the country can truly reap the benefits of such strategy.*

## Revisiting Infrastructure Spending

### INTRODUCTION

Increasing integration of the global economy requires mobile factors of production and distribution, and brings about fierce competition for investment capital. The ability of a country to adjust to the ever-changing economic landscape largely determines investment levels and ultimately, long-term growth prospects.

Economic literature supports the idea that infrastructure considerably improves the capacity of the domestic economy to respond to the requisites of a more challenging business environment. Infrastructure contributes to economic growth through demand and supply channels by decreasing production costs, contributing to the diversification of the economy, providing access to the pragmatic application of technology, and raising the economic returns to labor. (Kessides, 1993).

**Table 1. Potential Positive Impacts of Infrastructure on the Poor**

| Sector  | Direct Impact  | Indirect Impact  |
|---|--|--|
| <b>Electricity</b>                              | <ul style="list-style-type: none"> <li>Mainly for lighting, TV, radio at low levels of income</li> <li>Heating, cooking, appliances for self-employment at higher levels of income</li> </ul>    | <ul style="list-style-type: none"> <li>Reduced energy costs for enterprise encouraging employment creation across wide range of activities</li> <li>Improved health and other services (refrigeration, lighting, etc.)</li> <li>Improved ICT access</li> </ul> |
| <b>Piped Gas</b>                                | <ul style="list-style-type: none"> <li>Limited impact at low-income levels</li> <li>Heating, cooking at higher levels of income</li> </ul>   | <ul style="list-style-type: none"> <li>Reduced energy costs for enterprise encouraging employment creation across limited range of activities</li> </ul>   |
| <b>Roads</b>                                    | <ul style="list-style-type: none"> <li>Access to employment and markets</li> <li>Access to services (health, education, etc.)</li> </ul>   | <ul style="list-style-type: none"> <li>Reduced transport costs and improved market access for enterprises and service providers, lowering the cost of serving remote communities</li> </ul>  |
| <b>Railways</b>                                 | <ul style="list-style-type: none"> <li>Limited impact at low-income levels</li> </ul>  | <ul style="list-style-type: none"> <li>Reduced costs and improved market access for enterprises</li> </ul>   |
| <b>Urban Mass Transit</b>                       | <ul style="list-style-type: none"> <li>Access to employment opportunities</li> </ul>   | <ul style="list-style-type: none"> <li>Employment creation from more efficient labor markets</li> </ul>  |
| <b>Ports</b>                                    | <ul style="list-style-type: none"> <li>Limited</li> </ul>  | <ul style="list-style-type: none"> <li>Reduced transport costs for enterprises encouraging employment creation (bulk commodities like agriculture)</li> </ul>  |
| <b>Airports</b>                                 | <ul style="list-style-type: none"> <li>Limited</li> </ul>  | <ul style="list-style-type: none"> <li>Reduced transport costs for enterprises encouraging employment creation (high-value, low-bulk commodities and services)</li> </ul>  |
| <b>Information and Communication Technology</b> | <ul style="list-style-type: none"> <li>Better communication access aiding migration, information on opportunities, access to knowledge, and potential engagement in wider communities</li> </ul> | <ul style="list-style-type: none"> <li>Employment creation through improved knowledge of markets, reduced management supervision costs, access to wider knowledge base</li> </ul>  |
| <b>Water Supply</b>                             | <ul style="list-style-type: none"> <li>Improved health outcomes; time savings; lower costs</li> </ul>  | <ul style="list-style-type: none"> <li>Limited</li> </ul>  |
| <b>Sanitation</b>                               | <ul style="list-style-type: none"> <li>Improved health outcomes; time savings; lower costs</li> </ul>  | <ul style="list-style-type: none"> <li>Improved health outcomes (e.g. reduce pollution by non-poor households)</li> </ul>  |

Source: Jones (2004)



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Not only does infrastructure help beget economic growth, it also contributes to the alleviation of poverty (Table 1). Physical infrastructure provides the poor with access to education and health services, water and sanitation, employment, credit, and markets for produce (Ali and Pernia, 2003). Queiros and Gautam (1992) found that the extent and quality of paved road networks is strongly correlated to trends in per capita GDP in a large sample of developing countries. Kwon (2000), on the other hand, found that poverty reduction is most sensitive to road infrastructure, followed by education, agriculture and irrigation.

### I. STATUS OF PHILIPPINE INFRASTRUCTURE

The country's lack of available key infrastructure is often cited as a critical constraint to investment and growth (ADB, 2007). In the 2008-2009 Global Competitiveness Report (GCR)<sup>1</sup>, the Philippines ranked 94 out of 134 economies in terms of infrastructure. (Table 2). The country also ranked low in the 2008 World Competitiveness Yearbook (WCY)<sup>2</sup> in which it ranked 48 out of 55 economies in terms of infrastructure. The poor state of infrastructure has constantly been blamed for the high cost of doing business, resulting in low investment inflows and high unemployment rates.

**Table 2. Ranking in Infrastructure and Global Competitiveness, 2008-2009 (out of 134 economies)**

|                         | China | India | Indo | Korea | Malay | Phil | Sing | Thai | Viet |
|-------------------------|-------|-------|------|-------|-------|------|------|------|------|
| Infrastructure          | 58    | 90    | 96   | 18    | 19    | 94   | 2    | 35   | 97   |
| Overall Competitiveness | 30    | 50    | 55   | 13    | 21    | 71   | 5    | 34   | 70   |

Source: *Global Competitiveness Report 2008-2009*

Moreover, the World Bank (2005) indicated that wide income disparities among regions in the Philippines can be attributed, in part, to regional differences in the level of infrastructure development.

Based on World Bank estimates, about US\$35 to 45 billion is needed to rehabilitate and modernize the infrastructure sector over the next decade. Given the limited resources available, spending on key infrastructure must be closely scrutinized to ensure allocative efficiency and transparency.

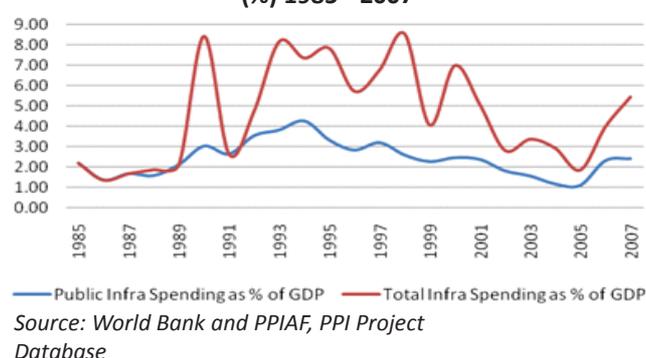
<sup>1</sup> The Global Competitiveness Report ranks 134 economies using 12 pillars (indexes) for competitiveness, namely: Institutions, Infrastructure, Macroeconomic Stability, Health and Primary Education, Higher Education and Training, Goods Market Efficiency, Labor Market Efficiency, Financial Market Sophistication, Technological Readiness, Market Size, Business Sophistication, and Innovation.

<sup>2</sup> The WCY ranks 55 economies using 331 criteria that are classified according to four competitiveness indicators, namely: Economic Performance, Business Efficiency, Government Efficiency, and Infrastructure. The Philippines clinched the 40<sup>th</sup> spot (out of 55) in the overall competitiveness ranking.

### II. PHILIPPINE INFRASTRUCTURE SPENDING

**Public Spending.** In the Philippines, public infrastructure spending as a percentage of GDP averaged 2.4 percent during the period 1985 to 2008. It peaked at 8.5 percent in 1998 and declined to 3 percent in 2002. In view of the fact that countries that have made substantial investments in infrastructure have forged their way ahead of countries that have not, the World Bank is encouraging the Philippine government to invest at least 3 to 5 percent of GDP in infrastructure.

**Figure 1. Public Infra Spending as a Percentage of GDP (%) 1985 - 2007**



During her State of the Nation Address (SONA) in 2006, President Macapagal-Arroyo unveiled the Super Regions Project which was aimed at facilitating the implementation of infrastructure projects laid out in the MTPDP and focusing efforts to harness the natural competitive advantages of the five subeconomic regions, namely: North Luzon Agri-business Quadrangle; Luzon Urban Beltway, Central Philippines, Mindanao, and the Cyber Corridor. The 2007 budget was focused on these projects in the Super Regions.

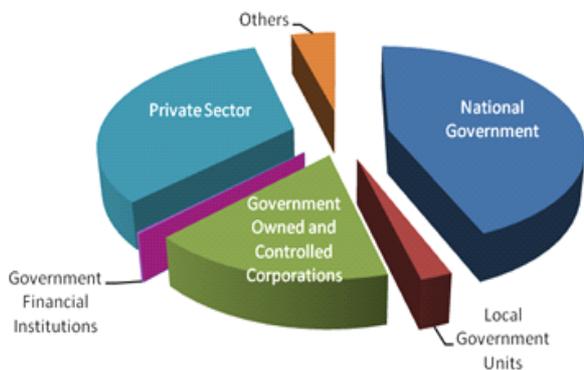
Public spending on infrastructure increased considerably in 2007 by 71.9 percent when the government pledged to increase infrastructure expenditure to enhance productivity and economic growth. Infrastructure spending constituted roughly 25 percent of total government expenditure during the period 2001 to 2007.

Accordingly, the National Economic Development Authority (NEDA) prepared the 2007-2010 Comprehensive and Integrated Infrastructure Program (CIIP), which is a list of priority infrastructure projects and their timelines. The CIIP includes projects appropriate for a purely private investment, public-private partnership (i.e., joint venture), and purely public investment.

The CIIP projects require a total investment of PhP2.016 trillion, of which the public sector is set to shoulder PhP1.3 trillion, equivalent to 62.8 percent of the total. The national

government and government owned and controlled corporations (GOCCs) are to finance PhP881.5 billion and PhP 337.3 billion, respectively.

Figure 2. CIIP 2007-2010 Investment Requirement by Sources of Financing

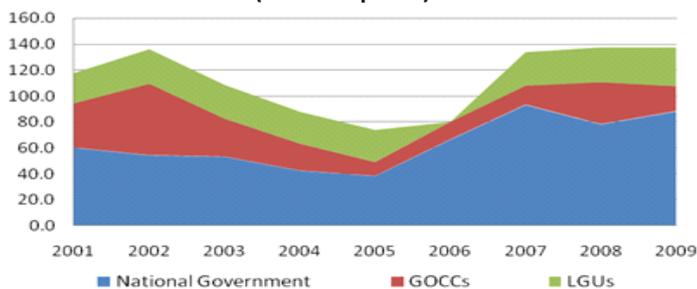


source: NEDA

The proposed national budget for 2009 totals PhP1.415 trillion, of which PhP229.6 billion or 16.2 percent is allocated for public infrastructure. The proposed fund for public infrastructure represents a 6.9-percent increase over this year's allotment and would account for 2.6 percent of the projected 2009 GDP figure of PhP8.7 trillion.<sup>3</sup>

In real terms (i.e., inflation adjusted), the proposed public infrastructure budget will amount to PhP137.6 billion.<sup>4</sup> Of that amount, the national government is set to spend PhP 88.4 billion or about 64.2 percent. GOCCs and local government units (LGUs) would be spending PhP19.2 billion and PhP30.0 billion, respectively. The spending share of the national government has been increasing beginning in 2005, the same period when the share of GOCCs started to decrease. On the other hand, the share of LGUs has remained stable, averaging at 20 percent.

Figure 3. Real Public Spending on Infrastructure, 2003-2009 (in billion pesos)

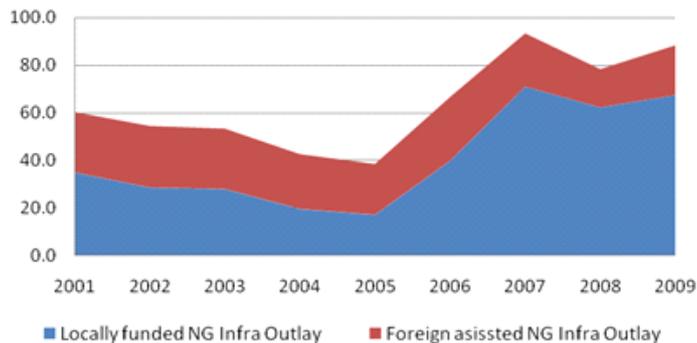


source: BESF 2009

<sup>3</sup> This is based on a low GDP projection sourced from the 2009 Budget of Expenditures and Sources of Financing.

<sup>4</sup> Figures in real terms are in constant 2000 prices.

Figure 4. Locally funded and Foreign assisted NG Infra Outlay (in PhP billion; constant 2000 prices)



source: BESF 2009

The significant increase of infrastructure spending by the national government has accordingly resulted in a considerable change in its financing mix. Prior to 2006, national government's infrastructure spending is more or less equally financed by locally raised funds and foreign grants/loans. After 2006 however, a little more than 75 percent of the national government's infrastructure outlay is financed by locally raised funds. The decreasing reliance on foreign funds may be viewed as a result of the fiscal consolidation program that was undertaken since 2005 and as a deliberate measure to limit the risks associated with foreign exchange movements.

Although the infrastructure budget was increased from 2007 to 2008, public construction posted a negative 6.4 percent growth during the first semester of 2008. Economic managers have explained that the contraction was due to the poor absorptive capacity of the implementing agencies, which, in turn, is aggravated by the lack of coordination between funding and implementing agencies.

In a recent Senate hearing, implementing agencies divulged that the bottleneck lies in the releasing of funds. In response, the Department of Budget and Management (DBM) said that since the 2008 budget took effect on April 1, 2008, bulk of the infrastructure funds were discharged through *comprehensive release*. Such instruction apparently has not reached the field offices of the implementing agencies and this has resulted in projects not being carried out early on as planned and/or were not completed on time.

During an economic downturn, such as the one currently being experienced by the country, public construction has always been relied on as a pumppriming tool in developing countries. Public spending on big ticket items like infrastructure is seen as a way of generating

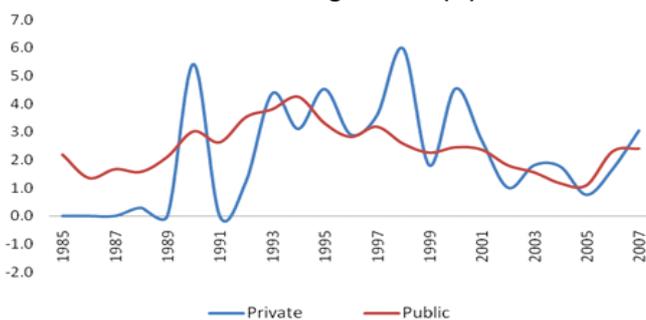
income and acts as an alternative to compensate for the decreasing levels of private investment and external demand.<sup>5</sup> In such case, the government cannot afford bottlenecks in the implementation of infrastructure projects.

According to estimates of the DPWH, 30 percent of infrastructure outlay goes towards the payment of labor and that the required investment needed to create one job is PhP100,000. Approximately 540,000 new jobs would be created with the 2009 infrastructure budget. In this light, the government is looking into the possibility of frontloading the necessary infrastructure funds for the first two quarters of 2009 to fast track public spending.

Indeed, while the provision of infrastructure services has long been recognized as an enabler of growth, it is inherently challenging. Public provision of infrastructure is inefficient and fails to address the problem of inadequate access largely because of fiscal pressures. In addition, the very nature of infrastructure utilities as essentials means that their provision is highly politicized (Harris,2003).

**Private Spending.** Consistent with the global trend during the 1990s, the Philippine government actively sought private sector participation in the provision and financing of infrastructure services.

**Figure 5. Private vis-a-vis Public Infrastructure Investments as a Percentage to GDP (%)**



source: WB and PPIAF, PPI Project Database

The Philippines was one of the pioneers in the Built-Operate-Transfer (BOT) scheme.<sup>6</sup> The introduction of Republic Act 6957, otherwise known as the BOT Law, and the subsequent amendments to this law under Republic Act 7718, is reflective of the government’s commitment to utilize private sector expertise and resources in infrastructure.

<sup>5</sup>Keynesian school of thought in Economics.

<sup>6</sup>Under the BOT scheme, “the contractor operates the facility over a fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals and charges sufficient to enable the contractor to recover its operating and maintenance expenses and its investment in the project plus a reasonable rate of return thereon.”

The BOT law not only allows for various modes of private participation, but also provides for direct negotiation of contracts and investment incentives in certain cases, and addresses the problem of unsolicited proposals.<sup>7</sup> The law expands private sector participation in infrastructure development in sectors such as power, ports, toll roads, airports, and water utilities. Indeed, there is a marked increase in private investment since the enactment of the law in July 1990. However, such influx has not been sustained as private investment in infrastructure fell from an estimate of US\$4 billion in 1993 to 1997 to US \$1 billion in 1997 to 2001.

The design and enforcement of contracts under the BOT Law, leaves much to be desired. Loopholes in the law have, in many cases, resulted in contested transactions.<sup>8</sup> The expected benefits are weighed down by information asymmetries, economic inefficiencies (bureaucratic and private), and rise of contingent liabilities of the government (CPBD, 2008).

In addition, the two alternatives to the BOT mode — commercial financing and official development assistance (ODA)<sup>9</sup> — present some challenges. The high interest payments on commercial loans accounts for a sizeable share of the annual budgetary appropriation for debt service.<sup>10</sup> The ODA is also problematic in as much as it brings with it conditional ties (commitment fees) such as tied loans and grants, which oblige recipient countries to purchase goods and services from donor countries that may come at expensive rates. ODA-funded projects are also constrained by the availability of counterpart funds, which have to be budgeted by the government.

Moreover, the perceived risks faced by private investors coupled with a politically unstable environment have stimulated demand for government guarantees. The BOT Law and its amending law, however,

<sup>7</sup>Modes of private participation are: (1) build-operate-transfer; (2) build-run-and-operate; (3) build-transfer; (4) build-lease-and-transfer; (5) contract-add-operate; (6) develop-operate-transfer; (7) rehabilitate-operate-transfer; and (8) rehabilitate-own-operate.

<sup>8</sup>For instance, “take-or-pay” contracts of independent power producers (IPP), ZTE National Broadband Network, and the Cyber Education Program. For a more detailed discussion on the BOT Law and the Government Procurement Reform Act, see Plugging the Loopholes on the Philippine Procurement System by G.H. Ambat and Renard Kayne Ycasiano (2008).

<sup>9</sup>ODAs are loans from multilateral institutions and bilateral sources. Both commercial financing and ODAs require competitive procurement. The BOT law prohibits the use of explicit government guarantees and limits the use of public funds to not more than 50 percent of the total project cost.

<sup>10</sup>For the longest time since the 1980s, total debt service account for the largest share in the annual national budget.

do not have any specific provision on government guarantees. According to Felicito Payumo,<sup>11</sup> it was never the intention of the law to shield private investors against loss. An investor is expected to assume the business risks attendant to the financing, construction, operation and marketing of the project.

Concomitant to the enactment of the BOT Law, the government embarked on the liberalization of the maritime and air transport industries. The move was intended to promote greater private sector participation and competition, thereby promoting efficiency and reducing cost in the delivery of public transport services. Despite these policy interventions, competition in the shipping and air transport industry remains dull. These resulted in higher cost of travel, and inability to meet increasing demand for transport services. This poses a challenge particularly to the competitiveness of the agriculture and export sector that face inordinately high transport costs.

### III. MAJOR INFRASTRUCTURE FACILITIES

*Transportation.* The archipelagic topography of the country underscores the need for an efficient transportation system that would ease production gridlocks and guarantee the speedy and timely delivery of goods and services. Rural (farm-to-market) roads for instance, are found to have significant effects in improving marketing opportunities and reducing transactions costs. Beenhakker (1987) found that marketing cost of agricultural commodities in developing countries could account for as much as 60 percent of final prices for food, with about half of that attributed to transport and freight.

The Philippines’ transport system relies heavily on the road network which handles about 90 percent of the country’s passenger movement and about 50 percent of freight movement (MTPDP 2004-2010).

For the year 2009, the proposed budget for the transport sector totals PhP108.3 billion. This amount includes the budget of the Department of Transportation and Communication (DOTC), its attached agencies (excluding National Telecommunications Commission), and the programmed expenditures of the Department of Public Works and Highways (DPWH) for the construction of roads and bridges (local and foreign funded).

<sup>11</sup> Felicito C. Payumo is former Chair of the Subic Bay Metropolitan Authority and three-term Congressman of the First District of Bataan. He was principal author of R.A.6957, otherwise known as the BOT Law.

The DPWH is the main agency responsible for the design, construction and maintenance of national roads and bridges, major flood control systems, and other physical infrastructure. Out of its 2009 proposed budget of PhP112.4 billion, allocation for capital outlay amounts to PhP99.8 billion, most of which goes towards the completion of the SONA projects (PhP23.5 billion) and the decongestion of critical transport bottlenecks including Metro Manila (PhP37.5 billion). A total of PhP83.9 billion is allotted for roads and bridges.

One must take note that although the amount allotted for the construction and maintenance of roads has been increasing since 2005, the share specifically earmarked for farm-to-market roads remains low at an average of PhP3.7 billion annually. This may imply that project allocations have been disproportionately focused on developed regions and biased against regions where agricultural production is concentrated. For example, northern and southern Mindanao has the highest grain output in the country but have the lowest paved road ratios. These regions also have high incidences of poverty.

One other important issue that must be looked into is the disbursement of the Motor Vehicle User Charge (MVUC). The MVUC is the equivalent of a “road user tax” and is earmarked as a source of additional funds for the DPWH and the DOTC.<sup>12</sup> The total MVUC collected from 2003 to 2008 amounted to PhP43.5 billion, or approximately PhP7 billion annually (Table 3).

**Table 3. MVUC Collection**

| Year | MVUC Collection<br>(in billion pesos) |
|------|---------------------------------------|
| 2001 | 3.171                                 |
| 2002 | 4.419                                 |
| 2003 | 5.455                                 |
| 2004 | 6.649                                 |
| 2005 | 7.217                                 |
| 2006 | 7.493                                 |
| 2007 | 7.737                                 |

Source: Bantay Budget, Phil. Center for National Budget Legislation

As mandated by Republic Act 8794 (Road Users Act), the collected charges shall be used exclusively for: (1) road maintenance and improvement of the road drainage; (2) installation of adequate and efficient traffic lights and road safety devices; and (3) air pollution control. However, the Commission on Audit (COA) 2007

<sup>12</sup> DPWH gets 92.5 percent of the total MVUC collected, while DOTC gets 7.5 percent.

audit reports revealed that unrelated expenditures are charged (in practice) against the MVUC by the management of DOTC and DPWH regional offices and district engineers' offices. It would seem that the disposition of the MVUC funds does not fall under the purview of congressional oversight and is largely left at the discretion of the Road Board<sup>13</sup> that is in charge of its administration.

Certainly, there are more instances in which public funds allotted for infrastructure are misused. For instance, the government continues to subsidize the Philippine National Railways (PNR), which incurs operating losses of around Php200 million annually due to chronic underutilization.<sup>14</sup> Since 2003, the PNR has incurred losses of up to US\$12.2 million.

**Table 4. Number of Registered Airports**

|                         |                  |
|-------------------------|------------------|
| Regular international   | 4                |
| Alternate International | 4                |
| Trunkline               | 12               |
| Secondary               | 36               |
| Feeder                  | 29               |
| <b><u>TOTAL</u></b>     | <b><u>85</u></b> |

Source: Air Transportation Office

In terms of air transportation, the Air Transport Office (ATO) operates a total of 85 airports most of which fail to meet minimum international operations and safety standards (Table 4). Air transport projects were pursued mostly through ODA financing. Only one project was undertaken through the private sector participation mode, the NAIA International Passenger Terminal 3 project. The project, however, met legal hurdles and controversies.

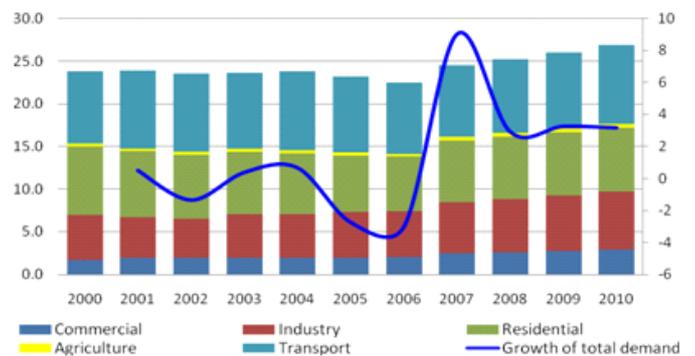
**Energy.** The importance of energy cannot be understated as the economy moves towards industrialization. Energy consumption has been rising at a rapid pace so much so that some fear of an impending power crisis in the near future. Insufficient investments in energy may result in the inability to provide for adequate service by 2010.

<sup>13</sup> The Road Board is composed of the DPWH Secretary (as its chairman), Secretary of Finance, Secretary of Budget and Management, Secretary of Transportation and Communication, and three selected nominees from transport and motorist organizations.

<sup>14</sup> The PNR operates and regulates a total of 1,296 kms of track, of which less than 50 percent is operational.

The projected increase in energy consumption calls for an increase in investment in energy. The Philippine Energy Plan for 2007 to 2014 originally set 2008 as the deadline in achieving 100 percent barangay electrification. However, the funds appropriated in 2007 and 2008 were short of the required investment. Thus, as of September 2008, there are 1,115 remaining barangays that have yet to be given access to electricity. This represents 3.4 percent of the total number of barangays nationwide.

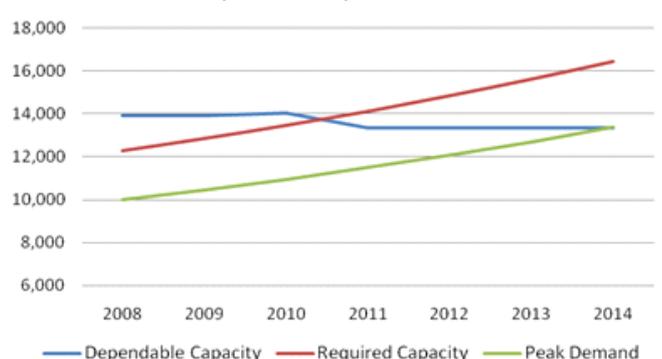
Figure 6. Final Energy Demand by Sector (in million tonnes of oil equivalent)



source: DOE Energy Development Plan

For 2009, the Department of Energy (DOE) proposed that Php 98.8 million and Php 96.3 million be allotted for its Barangay Electrification Program and Remote Area Electrification Subsidy, respectively. In addition, the World Bank granted Php 60.2 million for its Rural Power Project. Thus, a total of Php255.1 million will be allocated for barangay electrification or 23.7 percent of the proposed DOE budget. It is hoped that the 2009 budget will enable the electrification of all barangays in the country and to ultimately provide the poor in rural/far-flung communities with the benefits brought by electrification.

Figure 7. Philippines Electricity Supply and Demand Profile (2008-2014), in mW



source: DOE

Aside from access to energy, the price mechanism pertinent to its provision must also be reviewed. A report on improving the investment climate in the Philippines showed that a little over a third of the firms surveyed indicated that affordable electricity remains to be a major constraint to their operations. These firms report that 8 percent of what they produce is lost due to power outages, which number to an average of six a year. Power outages are more expensive for small firms. (ADB-WB,2005).

The passage of the Electric Power Industry Restructuring Act (EPIRA) is viewed as an instrument in introducing reforms in the energy sector. It provides for the establishment of the Wholesale Electricity Spot Market (WESM), which is a mechanism for determining the price of electricity not covered by bilateral contracts between sellers and buyers of electricity. Despite passage of the EPIRA, however the Philippines have one of the highest power rates in Asia, largely because of our dependence on imported oil (Table 5).

**Table 5. Electricity Rates**  
(in US cents/kWh)

| Country     | Residential |      | Industrial |      | Latest Date |
|-------------|-------------|------|------------|------|-------------|
|             | Low         | High | Low        | High |             |
| China       | 6.0         | 6.1  | 6.6        | 8.7  | (2006)      |
| Hong Kong   | 11.1        | 13.9 | 8.1        | 9.1  | (2006)      |
| Japan       | 12.9        | 18.0 | 10.2       | 11.1 | (2006)      |
| Korea       | 6.1         | 19.9 | 5.1        | 6.7  | (2006)      |
| Malaysia    | 5.9         | 8.5  | 3.9        | 6.4  | (2006)      |
| Philippines | 13.6        | 21.5 | 12.3       | 19.5 | (2008)      |
| Singapore   | 17.0        | 17.0 | 17.0       | 17.0 | (2008)      |
| Thailand    | 4.8         | 8.0  | 3.2        | 9.7  | (2006)      |

Source: Department of Energy

In its pursuit of energy independence and reasonably-priced electricity, the government is pushing for 60 percent energy self-sufficiency by 2010. Self-sufficiency level reached 55.7 percent in 2007, a few notches below the target of 57.2 percent that was set in the Philippine Energy Plan (PEP). The passage of the Biofuels Act (January 2007) and the Renewable Energy Act (September 2008) is expected to fast track reforms geared towards energy self-sufficiency and is expected to bring in more investments in cleaner (and cheaper) energy sources. The proposed locally-funded projects of the DOE are focused on attaining these goals. (see Table 6).

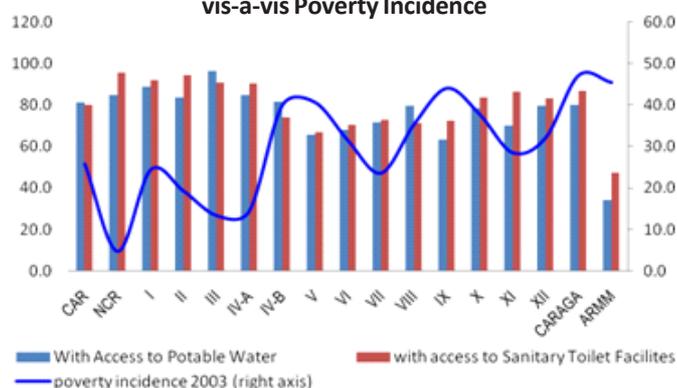
**Table 6. Proposed Locally-Funded Projects of the DOE**  
(in million pesos)

| Projects   | Amount       |
|--|--------------|
| Barangay Electrification   | 98.8         |
| Remote Area Electrification Subsidy  | 96.3         |
| National Continental Shelf Delimitation  | 28.0         |
| Biofuels   | 25.6         |
| National Energy Efficiency and Conservation  | 11.5         |
| Fuel Conservation and Efficiency in Road Transport   | 11.2         |
| Power Conservation and Demand Management   | 11.1         |
| Hydrogen Program   | 10.4         |
| Natural Gas Vehicle Program for Public Transport   | 8.7          |
| Coalbed Methane Resource Assessment  | 7.6          |
| Oil Industry Deregulation Management   | 6.3          |
| Autogas Program  | 4.4          |
| Resource Assessment of Low Enthalpy Geothermal   | 3.2          |
| Energy Investment Promotion Program  | 2.2          |
| Accreditation to ISOP 17025 of Lighting and Appliance Testing Laboratory Calibration Section | 0.1          |
| <b>TOTAL</b>   | <b>325.4</b> |

source: DOE Proposed Budget FY 2009

**Water and Sanitation.** There is a need for government to recognize water as a socially vital economic good that must be managed responsibly in order to sustain growth and reduce poverty. Adequate and equal access to safe drinking water and sanitation facilities is key in improving the productivity of a labor-rich country like the Philippines. The primary impacts of safe water facilities for poor households are likely to be the savings in time (but these vary considerably among locations), the cost of water, and the incremental benefit of increased water consumption. Secondary impacts are on health and on small-scale economic activities, made possible partly by the time savings and the more readily available water.

**Figure 8. Access to Safe Water and Sanitary Toilets Facilities vis-a-vis Poverty Incidence**



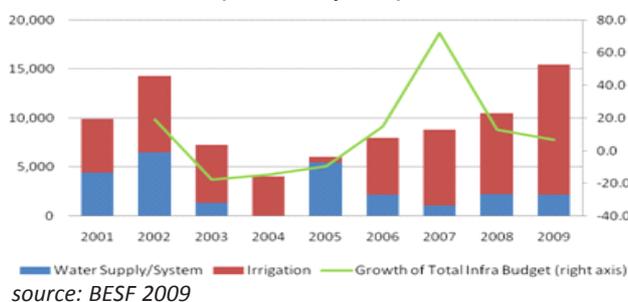
source: PSY 2008

While more than 90 percent of the urban population in the Philippines has access to safe water and sanitation facilities, the corresponding figure for the rural areas are about 80 percent and 70 percent, respectively. (ADB 2004). National averages do not reflect the disparity in access across regions. For instance, the proportion of households with access to safe water in the ARMM and the NCR is 34.1 percent and 85.1 percent, respectively. In terms of access to sanitary toilet facilities, the ARMM records 47.3 percent while the NCR has 95.6 percent.

Public investment for water systems (including artesian wells) in 2009 sums up to PhP 2.2 billion. The Local Water Utilities Administration (LWUA) is set to invest PhP498.6 million for water systems next year. The Department of Health (DOH), which historically do not partake of an infrastructure budget, is set to spend PhP1.5 billion in capital outlay for “Potable Water Supply.” This is considered as a lump sum item as the 2009 National Expenditure Program (NEP) does not provide for any specific details (area/locality) on this project item of the DOH.

The provision and maintenance of irrigation facilities are also important in enhancing agricultural productivity. Public investment in agricultural production facilities is expected to increase in 2009 with the introduction of the FIELDS Program.<sup>15</sup> The 2009 proposed investment for irrigation infrastructure is set to reach PhP13.3 billion, PhP12.6 billion of which is to be expended by the Department of Agriculture (DA) and the remaining PhP635.9 million shall be sourced from the Agrarian Reform Fund. The amount is expected to provide irrigation for 173,443 hectares and to result in a 30 percent increase in crop output .

**Figure 9. Public Spending on Water Supply and Irrigation (in million pesos)**



#### IV. CHALLENGES AND POLICY IMPLICATIONS

The national government’s infrastructure-led development strategy is well intended and seems to be on the right track. However, there remain a number of challenges that must be hurdled before the country can truly reap the benefits of such strategy.

**Financing.** Efforts to improve fiscal discipline allowed for more legroom in terms of spending for infrastructure and other social services. Although there has been a decline in the reliance on ODAs during the past years, a significant amount still requires budgetary cover.

Considerably increasing the budgetary allocation for the maintenance of various infrastructures might be inappropriate given the present fiscal dilemma. The MVUC could be a steady and adequate source of funds if it is used strictly and conscientiously to rehabilitate and improve infrastructure facilities, as the law provides. Azfar, et. al. (2000) estimated that approximately 20 to 40 percent of public works resources are misused. It is in this context that the Road Users Act must be re-examined to better ensure improved governance and accountability in the utilization and appropriation of the MVUCs. DOTC and DPWH must also rely increasingly on performance-based outsourcing to guarantee the timely completion of infrastructure projects.

Reliance on foreign funds for infrastructure is arguably not sustainable. The ideal is to utilize domestic savings intermediated through domestic capital markets for infrastructure financing. This of course implies a deepened domestic financial market and a stable macroeconomic environment. In the meantime, it would be wise to strengthen the regulatory capacity of debt management agencies.

The shift to *users’ pay principle* entails moving towards an ideal charging regime for the use of infrastructure. This includes expanding the toll road coverage, area licensing system, and other forms of congestion pricing. The pricing, which should be cautiously executed, should allocate all of the associated costs (e.g. congestion, environmental, wear and tear) to users. In this manner, the share of maintenance costs to the annual programmed expenditures of the DOTC and DPWH can be reduced significantly.

**Implementation.** Although the necessary legislative framework is in place, the Philippine experience in implementing infrastructures projects has persistently

<sup>15</sup> FIELDS stands for Fertilizer, Irrigation and Infrastructure, Extension and education, Loans and insurance, Dryer and other post harvest facilities, and Seeds — the six assistance packages of the food production drive introduced by President Gloria Macapagal Arroyo.

been bogged down by inefficiency, corruption, and patronage.

Congress must act on the call to review the unclear provisions of the BOT Law and the Government Procurement Reform Act. This translates to improving transparency in the bidding/procurement process. Moreover, there is a need to re-assess the roles of implementing agencies, costs pertinent to transfer of ownership, and handling of residual claims.

To guarantee the timely delivery of service, a more straightforward mechanism must be introduced to unclog the bottlenecks in the disposition of infrastructure funds. Moreover, there might be a need for implementing agencies to beef up their stock of qualified and efficient personnel to improve absorptive capacity.

Once in place, institutional reforms geared towards improved coordination between national government and local government units should follow. Stakeholders (e.g. LGUs) should also be encouraged to strengthen monitoring and reporting capabilities, especially with regard to rural infrastructure.

**Setting Priorities.** The increasingly tight budget situation makes it all the more imperative that all expenditures must be held at high standards of

efficiency, effectiveness, accountability, and transparency. The major concern is the allocation of scarce resources to special budget funds that are not necessarily aligned with policy priorities and not transparent in their use.

The existing system (1) provides a mechanism for local interests to be incorporated in the budget via special projects of members of Congress (government officials?) and (2) allow large amounts of discretionary funds that do not pass through the normal budget process. These can considerably affect the credibility of the (annual and forward) budget estimates and the integrity of the government's strategic allocation procedures.

To improve planning, policy and regulation, agencies should engage in infrastructure policymaking at three levels: long-term strategy (around 10-20 years) in line with the national development plan; mid-term programs (3-5 years) in line with a priority investment plan and multi-year budgeting; and short-term action — a one year (rolling) action plan in line with the annual budget. Towards this end, what is called for is a more efficient scrutiny of proposed infrastructure projects and their prioritization in view of limited fiscal capacity.

## References

- Ali, Ifzal and Pernia, Ernesto. (2003). *Infrastructure and Poverty Reduction: What is the Connection?* ERD Policy Brief Series No. 13. Economics and Research Department, Asian Development Bank, Manila.
- Asian Development Bank. (2007). *Philippines: Critical Development Constraints*. Country Diagnostics Studies. Asian Development Bank, Manila.
- Asian Development Bank. (2005). *Philippines Private Sector Assessment*.
- Asian Development Bank. (2004). *The Impact of Water on the Poor: Study of Selected ADB Water Supply and Sanitation Projects*. Water For All Publications Series. Asian Development Bank, Manila.
- Asian Development Bank-World Bank. (2005). *Improving the Investment Climate in the Climate*. Development Indicators and Policy Research Division, ADB-WB.
- Azfar, Omar, Tugrul Gurgur, Satu Kahkonen, Anthony Lanyi, and Patrick Meagher. (2000). *Decentralization and Governance: An Empirical Investigation of Public Service Delivery in the Philippines*. IRIS Center, University of Maryland, and World Bank.
- Beenhakkor, Henri L. (1987). *Issues in Agricultural Marketing and Transport Due to Government Intervention*. Transportation Issues Series. Discussion Paper No. TRP7. World Bank, Washington, D.C.
- BusinessMirror, September 15, 2008.
- Chattererjee, S., Duncan, T., Narayanasuwami, C. and Prakash, B., 2004. *Scaling-Up Poverty Reduction Potential of Infrastructure Projects: Lessons from the Asia-Pacific Region*. Poverty and Social Development Papers No. 10. September 2004, Asian Development Bank, Manila.
- Committee on Oversight. (June 2008). House of Representatives.

- Congressional Planning and Budget Department. (September 2008). House of Representatives, *Agency Budget Notes: Department of Transportation and Communications*.
- Congressional Planning and Budget Department. (2008). *Revisiting Public-Private Partnership in Infrastructure Development: Improving BOT*. Policy Advisory No. 2008-04. House of Representatives, Manila.
- Department of Budget and Management. (September 2008). National Expenditure Program.
- Department of Transportation and Communications (DOTC). (2008). Accomplishment Report.
- \_\_\_\_\_. (2009). Budget Briefing Materials
- Department of Energy. (2007). *Philippine Energy Plan 2007-2014*
- “From Framework to Actions: Meeting Philippines’ Infrastructure Challenges,” a policy note on the key recommendations from the World Bank report, Philippines: Meeting Infrastructure Challenges, 2005.
- Harris, Clive. (2003). *Private Participation in Infrastructure in Developing Countries: Trends, Impacts, and Policy Lessons*. World Bank Working Paper No.5. World Bank.
- Jones, S. (2004). *Contribution of Infrastructure to Growth and Poverty Reduction in East Asia and the Pacific*. Background paper, Oxford Policy Management.
- Kessides, C. (1993). *The Contributions of Infrastructure to Economic Development: A Review of Experience and Policy Implications*. World Bank Discussion Paper No. 213. World Bank, Washington DC.
- Kwon, Eunkyung. (2000). *Infrastructure, Growth and Poverty Reduction in Indonesia: A Cross-sectional Analysis*. Asian Development Bank, Manila.
- Llanto, Gilberto M. (March 2004). *Bottleneck to growth: inadequate infrastructure*, Philippine Institute for Development Studies (PIDS) Policy Notes.
- \_\_\_\_\_. (October 2007). *Reforming the BOT Law: a call of the times*, Philippine Institute for Development Studies (PIDS) Policy Notes.
- National Economic and Development Authority. (2004-2010). Medium-Term Philippine Development Plan.
- \_\_\_\_\_. (May 2004). Comprehensive and Integrated Infrastructure Program (CIIP).
- Olsson, Jerry. (Second Semester 2004). Decentralization of Governance and Financing of Public Roads in the Philippines in the 1990s, PIDS-Philippine Journal of Development, Vol. XXXI, No. 2.
- Philippine Daily Inquirer. Payumo, F. (2007). *State ownership equals control by politicians*. A Commentary printed August 17, 2007.
- Queiroz, Cesar and Surhid Gautam. (1992). *Road Infrastructure and Economic Development: Some Diagnostic Indicators*. Policy Research Working Paper No. 921. World Bank, Washington, D.C.
- World Bank. (2008). Accelerating Inclusive Growth and Deepening Fiscal Stability: Draft Report for the Philippines Development Forum.
- \_\_\_\_\_. (2002). Cities on the Move.
- \_\_\_\_\_, Transport in the Philippines. [Http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFIC](http://www.worldbank.org.ph/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFIC). Accessed on September 4, 2008.

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