

Decentralization of Governance and Financing of Public Roads in the Philippines in the 1990s

JERRY OLSSON*

A major theoretical as well as political approach to transport infrastructure investment and management is the idea that such services are public goods and should not be subject to private market considerations. However, from time to time, public provision seems to fail, which increases the importance of various forms of private sector participation:

Over the last 20 years there has been a significant reallocation of responsibility for transport infrastructure, including the devolution of power to local authorities and autonomous public bodies ... and the growth of private finance. These changes have had an important influence on the way which transport infrastructure is planned and managed.

– Sheila Farrell

This has happened in developed and less developed countries and such events might be related to contextual and/or internal matters. During the 1970s, the debate whether transport infrastructure should be provided by the public sector or through market mechanisms reappeared. In developed countries, the political environment changed becoming more liberalised. Private sector oriented policies were strengthened and a new belief in competition emerged with the decline in state intervention (Nijkamp and Blaas 1994; Maskell 2001; Debande

* The author is grateful to B. Vilhelmson, J. Lindberg, Å. Forsström, and K. Lindström of the Department of Human and Economic Geography, Göteborg University, for their useful comments and suggestions.

** The author is a Ph.D. candidate at the Department of Human and Economic Geography, School of Economics and Commercial Law, Göteborg University, Sweden.

2002; Goetz 2002).¹ The view that public governance was the vehicle for ensuring the greatest welfare to the greatest number of people came under question. Redirection also resulted from the public sector's inability to shoulder costs. Huge investments before the 1970s were followed by insufficient investments (despite continued passenger and freight traffic growth) as funds were, increasingly, needed to finance social services and public debts (Duffy-Deno and Eberts 1991; Rathery 1993; Walker and Smith 1995; Banister and Berechman 2000; Debande 2002). Finally, authority from the national government was transferred to regional and private groups (Maskell 2001; Bickerstaff *et al.* 2002). The transfer of power closer to the people strengthened public participation at local levels.²

These policies, adopted generally by developing countries (WB 1994; Gwilliam 1997; ADB 2000), were also adopted by the Philippine government in 1992 as new directions for development were set up.³ Urban and rural areas were integrated through road network improvements, thereby strengthening the interaction between industry and agriculture. The private sector was seen as the main engine for growth and development (Thompson and Villacorta 1996; DPWH 1999; WB 2000a) and laws stimulating private participation in public infrastructure were enacted. The Local Government Code enacted in 1991 coincided with this. The Code decentralised political governance down from national to local level. As local funds were transferred mainly from the national government's tax base, this had implications on public infrastructure provision.

Aim and questions

The main purpose of this paper is to describe and evaluate recent practices in Philippine transport infrastructure policies, with emphasis on market-oriented policies and decentralized governance. The following question is addressed:

- ◆ In what ways have more recently adopted policies affected planning, provision, and financing of public road infrastructure on national and local levels since the early 1990s?

¹ Others argue that the focus on liberalisation and privatisation is overvalued and overestimated. Changes in planning have concentrated on legislative rather than policy outcomes (Banister 1994; Allmendinger 1997, 2002; Westholm 2002). Further, and referring to developing countries, Ghosh Banerjee and Munger (2004) found that a privatisation policy is much more likely to be a crisis-driven, a last ditch effort to turn the economy around, rather than a carefully chosen policy with explicit, long-term goals.

² The balance between the government and the public has shifted in other ways. For a long time, the government could implement large transport infrastructure programs with little public consultation. This is much harder to do at present (Grant-Muller *et al.* 2001).

³ Exploring options of privately owned and operated infrastructure projects started in the late 1970s and early 1980s in some better performing developing countries (Augenblick and Custer 1990).

Studies covering outcomes of policy implementations in developing countries are scarce (Bollard and Pickford 1998; Debande 2002).⁴ In the Philippines, the World Bank (2001) reports that no such study is available:

“Devolution in the Philippines started in 1991, but no systematic evaluation has yet been made of how local governments have actually performed in delivering the functions devolved to them or in alleviating poverty. The evidence so far is anecdotal but mixed. It is now time for stock taking to take place.”

While attention is given to performance on national level, the empirical data from and the performance on the local level is of considerable importance as it may confirm and/or back-up other papers (based on secondary data and/or theoretically oriented) dealing with transport related issues in the Philippines. This paper is an introductory analysis of performances of the government on national and local levels. A complete analysis would include a more thorough assessment of public and private investments in the transport sector on national and local levels, a comparison between rural versus urban local government performance, and current constraints to an effective decentralization of governance and financing of public roads.

Outline

Next section provides a theoretical discussion concerning decisionmaking, financing, and organisation in infrastructure planning, especially road infrastructure. The discussion considers planning theory, in general, in a developed and developing country perspective. The third section starts with a discussion on material and method. Then, it focuses on Philippines' development problems, its relation to transport infrastructure and measures to solve this through policy changes on national and local level. A peripheral rural municipality with poor transport conditions constitute the local case. Major conclusions are outlined in the final section.

DECISIONMAKING, FINANCING, AND ORGANIZATION

In order to understand the objectives behind the changes taking place in the Philippines, a number of planning theories and organizational models are hereby considered. Issues such as who should provide transport infrastructures, on what level should project-planning be taken, and is the state or the private sector the best performer and/or financier are addressed.

⁴ Debande (2002) meant that literature on local economic studies assessing outcomes from privatisation initiatives in infrastructure were scarce. A few exceptions are usually performed by international institutions.

Decisionmaking

State- and market-led planning

Keeble sets the direction of planning by stating that "Planning is the art and science of ordering the use of land and the character and siting of buildings and communication routes so as to secure the maximum practicable degree of economy, convenience and beauty" (Keeble 1952). State-led planning was, at least until the 1960s, based on the opinion it works for the 'good' of society at large and the people living within it (Banister 1994; Allmendinger 2001). It is believed that market economies perform badly when utilising public resources. If companies, organisations or individuals only plan for their own short-term benefits, the likelihood of negative consequences is greater. Contrary, market advocates stress there is too much bureaucratic planning. Planning should be based on market principles in order to increase efficiency.

The opinion of state-led has, from time to time, been criticised. During the 1970s, socialists stressed that planning was an arm of the capitalist state and a legitimisation of the capitalist system. Weberians stressed that the state served societal interests, which were more and more controlled by a rational and independent bureaucracy. Since the 1980s, there has been a re-establishment of neoclassical principles and the company state concept, wherein the market is liberalized, the private sector is the efficient provider, and the state's role is reduced to a facilitating function.⁵ In contrast, transport planning was, according to Banister (1994), quite immune from a theoretical debate until the thoughts of neoclassical economics emerged.⁶ Prior to this, the debate was mainly concerned with organizational structures within the public sector and user and operator subsidies. It was seldom questioned whether organisation should be in the hands of the private or public sector and their different principles of resource allocation.

Functional and substantive rationality: working toward sustainability

The discussion above is related to rationality. Basically, rationality means that the alternative chosen among several alternatives is the one which best provides the decisionmaker's material interests and noticeable good (Nyström 1999). Coinciding are the assumption about maximization of profit and the principle of least effort. A critique is the belief that each planning step can be analysed and isolated from the wholeness in order to perform an objective analysis. Friedmann (1987) identifies two types of rationality: functional (market) and substantive (equality).

⁵ Bollard and Pickford (1998) take New Zealand as an example where a reversal of government intervention, ownership, and regulation toward liberalization and free market operation started in the mid-1980s in an attempt to improve the economy.

⁶ Sweden is an exception with a huge state investment in a national railway network. Railway building in New Zealand, which started during the 1870s, was also state-financed (Bollard and Pickford 1998).

Providing unreserved self-interest for private individuals and companies is related to the former. The functional rationality lack coordination but as long as some individual or company improves their situation without negatively harming others, societal economic efficiency increases. The substantive rationality is based on the view that a person is part of a social group where the collective interest is greater than the sum of all individuals.

Substantive rationality is motivated as long as the public interest is protected. But, since the private sector's role in a market economy is vital in creating jobs, planning must provide for its support. There must be a mutual balance. This perspective is important when considering transport infrastructure, as there is a distributional and equality responsibility to provide transport infrastructure to all groups and locations. Parallel to this is the relation between benefits and costs, both related to private sector participation. Since the mid-1990s, functional and substantive rationality are included in the concept of sustainability. Here, sustainability does not only encompass the environment and ecology, but also economic, financial, and social sustainability. In transport planning, this has been influential, although criticized for its contradictions (Gwilliam 1997; Gakenheimer 1997) in formation of transport policies in the developing world. According to the World Bank (1996), sustainability of transport policy includes several aspects. It must ensure that a continuing capability exists to support an improved standard of living and economic and financial sustainability. It must generate the greatest possible improvement in the general quality of life, not just an increase in traded goods and environmental and ecological sustainability. Finally, benefits must be equitably shared by all sectors of the community—social sustainability.

The major criticism against the rational planning theory is the insecurities within large planning projects, making this sort of planning hard and often resulting in failures. Insecurities relate to imperfect forecasts, future change in demand, household conditions, or societal views. There is an inherent conflict of objectives in this planning theory. It has no obvious tool for choosing between the distributive and the most cost-benefit efficient alternative. If a policy of rationality is followed, it may end up in sharp contrast to the distributive goal. This problem arises in cases with very little economic viability for the private sector to participate.

In the 1980s, a perspective (referred to as the bottom-up perspective) focusing on local governance, cooperation, and limited central authority, grew stronger. It is believed that decisions are best formulated when taken closer to reality they are taken. The expected benefits from decentralization—improved efficiency and equitability in service delivery, less national government expenditures, and greater participation and democracy—should result in more popular consent and political stability. However, the perspective is problematic. It

neglects the systematic organisation of society, in the case of the transport system, the build-up of network connectivity. Substantive rational arguments from regionally or nationally organised cooperations or interests will not be considered properly. The opposite (a top view) opens up for lobbying, where stronger regions may outperform weaker ones.

So far, the discussion has presented three major issues within planning: state- versus market-led planning, functional and substantive rationality, and bottom-up versus top-down planning perspectives. More recent planning perspectives view the private sector as a complement to the public. The problem of attracting the private sector, especially in transport infrastructure, has directed attention to private-public partnership alternatives where both government and private market participation is necessary. This is discussed further in the third section of this paper.

Planning and financing models in practice

East Asian practices

Much attention has focused on the East Asian countries due to their exceptional economic growth rates. Building of infrastructures is seen as a core government function (Hossain et al. 1999) and of critical importance in their development strategies. Others (WB 1993) stress that the East Asia countries have been subject to a combination of policies. Neoclassical advocates say that the government's role in economic decisionmaking was limited and should be handed over to market forces. Others would want the governments in some countries to support individual sectors and that the levels of and variation of protection across sectors were greater than those recognised by the neoclassical advocates. The government allows the market to work on its own in areas where it can and intervened where market forces can not. Another view recognises the diversity of policies and how a mixture of policies contributed to efficient economic management. The main reason for growth is government flexibility. Policies not working are abandoned while those working are retained.

Data from East Asian countries show that government is more successful in providing infrastructure and creating pro-investment conditions for private sector participation compared to other low- and middle-income economies (WB 1993; Antipolo 1996). Some countries, e.g., Taiwan and South Korea, also allocate a larger share of public investment to rural areas.

The role of global institutions in the 1990s and policy change in developing countries

The multilateral lending institutions' attitude towards private sector participation since the 1990s is generally positive but cautious (Gwilliam 1997). While the World

Bank (1993) acknowledged state-led intervention in infrastructure provision in East Asia, it still proposed options (WB 1994) where the private sector, commercial principles, and increased competition had advanced roles:⁷

- ◆ public ownership and operation by enterprise or department;
- ◆ public ownership with operation contracted to the private sector;
- ◆ private ownership and operation, often with regulation; and
- ◆ community and user provision.

Outcome was hinged upon the private sector's strength, the government's administrative capacity to regulate private suppliers, the performance of public sector providers, and the political consensus for private provision. A shift appeared with Sustainable Transport: Priorities for Policy Reform (WB 1996) where no justifications for direct state provision of service in transport operations (not even under competitive arrangements) could be supported. However, it was noted that participation came in different forms, financing was restricted to few countries and limited to ports, airports, trunk roads, and freight railway.

Privatization in itself can have numerous meanings. Recent policy prescription, adopted from developed countries, to mobilize funds includes denationalisation (direct sale of public assets), deregulation (introduction of competition in former monopoly sectors), incorporation of public enterprises, service contracts, management contracts, leasing concessions and build-operate-transfer (BOT) scheme. BOT scheme, which is similar to leasing concession, is a form of privatisation without direct sales. That is, ownership reverts back to the public sector at the end of the contract. The main advantage for the public sector in such arrangements lie in the promise of better project design, construction, and operation without having to shoulder construction costs (Debande 2002). Contracts usually run between 30–50 years, wherein the private sector generates cash (tolls and fees) to pay back the debt service and provide dividends to the shareholders of the project company. In such a setting, the public sector purchases a service, not an asset.

Within the Association of Southeast Asian Nations (ASEAN), all countries, except Singapore and Brunei, planned or had initiated private sector initiatives during the early 1990s (Lall and Tay 1996). Two initiatives were prioritised: (i) privatisation of commercial entities, airlines, telecommunication, and electric utilities; and (ii) transfer of rights, with or without the sale of assets, mainly through BOT–arrangements where the state transfers the right to private firms to provide a service under specific construction and operation obligations.

⁷ According to Stiglitz (2003), both the World Bank and the International Monetary Fund resisted to acknowledge the East-Asian countries growth because they did not follow their recommendations, instead they followed their own outlined development strategies.

Another measure, proposed by the World Bank in mid-1990s, was community cost-sharing for improving rural access (WB 1994; Howe 1997). Those affected should bear significant costs and participate in decisionmaking. Cost-sharing arrangements would also apply for maintenance of roads with the condition that communities not able to cover costs would pay back funds. This has been successful primarily in developed countries, e.g. Sweden and Finland (Howe 1997). Also, in sub-Saharan countries where the extension of user-involvement in resource allocation and management has been transferred to user-managed road authorities (Gwilliam 1997). The criticism comes from the impracticality of taxing poor people in rural areas. The amount of money collected may be insignificant in relation to the cost of collection, as there is no money to collect.

Bottom-up perspective

Many developing countries also adopted bottom-up policy in the 1990s (Mashiri 2001; Kimsan 2001). Decentralization, participation, equitable allocation, and local knowledge became important. Programmes were enacted where responsibility for administrative and developmental decisionmaking and service delivery were decentralised to local authorities. The concept of decentralization was central meaning the kind of devolution entails that the authority lies in the hands of the local government to plan and decide what is to be done (Bird 1994). Although viewed as democratic and sprung from local needs, the bottom-up planning perspective is also criticised. For example, decentralisation is not synonymous with the ability of local governments to deliver. In reality, especially in poor rural areas, resources are scarce, technical and political institutions are weak, and civil societies are fragile. If more expenditure responsibilities are decentralized, the amount and quality of services will suffer. Meanwhile, if more revenues than expenditures are decentralized, local revenue mobilization is likely to decline. Implementation of projects will take place without first handing over of resources, competent decisionmakers, technocrats, and deep involvement by civil society and their organizations.

Benefits and problems related to new financing policies

Relieving pressured governments from additional financial burdens is the main reason behind private sector participation. Thereby, the government can direct more attention and resources toward social sectors and help vulnerable and poor areas.

Advocates of private sector participation maintain that the sector's contribution to development, in particular infrastructures, have been hampered by institutional shortcomings, weak corporate governance, unclear regulations, anticompetitive behaviors, and corruption (Allmendinger 1997; Bollard and Pickford 1998; ADB 2000; ADB 2001a). Compared to the public sector, the private

sector uses (when properly regulated and operating under competitive market conditions) resources more efficiently (Debande 2002). Arrangements financed by the private sector make operators more accountable. In case of cost overruns, costs fall on the shareholders or lending institutions for privately-financed projects, while in public ownership the public sector shoulders extra costs. Finally, the private sector creates jobs. As it is believed that sustained growth creates jobs and the private sector is the largest source of employment, it should be regarded as a provider.

In case of BOT arrangements, the public sector pays for the service only if it meets required standards, as the same operator is in charge of both construction and operation. If the same entity builds and sells the services and is only remunerated for successful supply of services, there will be no intention to reduce the quality of services provided. It will also avoid reasons for cost overruns or choosing inefficient technology since the operator's future revenue depends on a flow of quality services from the asset.

Using private capital also deal with problems in developing countries:

- ◆ lack of and large capital outlays, long period of investment return, irreversibility of spending, and contingency on macroeconomic parameters;
- ◆ unclear and unstable political decisions, discouraging private investors; and
- ◆ insecurities among transport demand, both passenger and goods.

Problems with private sector financing are reinforced when considering rural areas, especially poor rural areas, which are perceived with risks and low financial returns (ADB 2001b). In developing countries, few road sections are economically viable in terms of construction, maintenance, and toll ways. Those in favor of state financing, especially largescale investments in rural and agriculture infrastructure, stress that the private sector cannot facilitate this due to length of payback time and low rates of investment return (Banister 1994; Cypher and Dietz 1997; Farrell 1999). In road construction, the private sectors dependency upon travel demand and its urban location preferential shows this shortcoming. For example, road under BOT-schemes are, regardless of country, almost exclusively implemented in capital cities where major traffic is concentrated (Allport et al. 1998). The remainder are implemented in the densest interurban corridors. Hence, the private sector can be a replacement and a complement to the public sector, especially in large infrastructure projects.

THE PHILIPPINE SITUATION

In the review in second section of this paper, it was indicated that there are no clear-cuts as to what planning model is to be followed or implemented. Instead,

numerous models and adhoc policies are often practised. Given the real world, outcomes are uncertain as objectives conflict between authorities and interest groups with different functions in the fields of planning and implementation. With this as a background, the aim of the remaining section is to look closer at the Philippine case, both from a national and local perspective.

Material and method

This section starts with an outline of legislative policies and economic and spatial development objectives that organizes Philippine transport infrastructure. Evaluation is undertaken through documents and national transportation plans, and legislative policies as published by national and local authorities and international institutions. It also includes data and interviews collected and conducted at the local level in 1999, 2001, and 2005. The analysis focuses on outcomes of measures on national and local level. The time-perspective is from 1990 onward. Choice of study area is based on the municipality's peripheral rural characteristic and long history of poor road transport conditions thereby representing an area included in the government's integration strategies.

Goals, policies and financing in the 1990s

Historically, the Philippines transport sector has been publicly owned, regulated and operated. Investment has been government-led (Allport et al. 1998; ADFAT 1998) and paid through budgetary resources or borrowings. Most infrastructure projects have been built under direct supervision by the government or a government agency or utility. Despite huge borrowings from lending institutions and bilateral donors, especially during the 1970s and early 1980s, the country failed to attain economic growth. A large share of the capital was invested in the road sector.⁸ This, together with insufficient maintenance, poor technological skills and institutionalized corruption, led to skepticism towards continued borrowings for infrastructure investments.

In 1992, the new government's policies were oriented towards liberalized trade, institutional reforms, privatization, and attraction of foreign direct investment. Integration of urban and rural areas to stimulate interaction between industry and agriculture was a goal. A persistent problem has always been the poor interconnectivity between the local and the national road networks. To accomplish this, transport infrastructure investment was needed, in both urban and rural

⁸ Skepticism from international lending institutions and bilateral donors towards developing countries concerned government's provision of loans and aids in public infrastructure planning (Heyman 1965; Heggie 1995; Ahmed 1997; Gwilliam 1997; Leinbach 2000; Banister and Berechman 2000). Other major deficiencies were failure to maintain existing assets and to utilize these efficiently. A large share of this capital (since World War II) went into the transport sector, especially road construction.

road network, as roads carry an overwhelming share of the passenger and freight traffic (NEDA 1992; ADB 1997). As total road network length was considered sufficient, upgrading and maintenance were prioritized.⁹ The policy was new and reverse to Asian Development Bank ordinances that focused on maintenance during the 1980s and construction during the 1990s (ADB 2001c). Also, the renewed interest in private sector participation and financing resurfaced.

However, decentralizations in governance, management and increased private sector financing started prior to 1992. Policies toward increased private sector financing was initiated through the creation of the Committee on Privatization in 1986. The work to reduce urban-rural gaps and local government dependency on the national government in matters concerning local development were also initiated in 1986 and, finally, materialized with the enactment of the Local Government Code (LGC) in 1991. The code brought major changes:

- ◆ decentralized responsibility for delivering certain basic public services;
- ◆ additional regulatory and licensing functions of the local government;
- ◆ increased funds allocated to local governments from the central government; and
- ◆ participation by nongovernmental organizations and private sector in local governance.

While the Code gives extended self-governance to the 1,600 municipalities, it also brings responsibility to perform comprehensive land use plans, development plans, full implementation of the agrarian reform programme, and new functions such as environmental management and various licensing responsibilities.

Responsibilities and financing

New responsibility and funding policies since the local government code enactment in 1991

In the Local Government Code, it is stated that development and funding of roads are to be shouldered by the public sector—national roads through the national government and local roads through local government (NEDA 1998). Despite the turnover of responsibility of local roads from the Department of Public Works and Highways (DPWH) in 1991, the DPWH improved local roads (when local governments had problems) until 1998 (ADB 1999a). In 1997, the Congressional Initiative Funds for local roads were almost as big as DPWH regular highway budget. Thus,

⁹ In 2000, approximately 20 percent of the Philippine road network was paved (asphalt or concrete), up from 14 percent in 1990, as well as in 1960 (DPWH: various years). The remaining was paved either with gravel or earth. Asphalt/concrete ratios on national, provincial, municipal, city, and village roads between 1990–2000 increased from 49 to 58, 12 to 21, 26 to 35, 67 to 77, and 1 to 7, respectively.

the DPWH and other government agencies were still involved in local roads, but with less budget, authority, and dedication.¹⁰ According to ADB (2000), guidelines of responsibility between agencies involved must be clearer. Another deficiency in the planning process has been the failure of DPWH to analyse overall network needs (ADB 1997; Coronel 1998; Allport et al. 1998). Priorities and planning were not only determined by technical and economic analysis but were also highly politically influenced. This had impacts on funding allocation and project selection.

Responsibility and funding of local roads in the 21st century continued with the guidelines from the 1990s (NEDA 2001). In the Medium-Term Development Plan 2001–2004, several national government departments were identified as funding agencies for improvement or construction of local roads. These roads should assist the national roads to improve access to priority agricultural areas, urban/industrial centres, and tourism areas.¹¹

Internal revenue allotments

Through the LGC, local governments are entitled to internal revenue allotments (IRA) from the government's tax base. Of total IRA, at least 20 percent should be allocated for development projects in coordination with the local government development plans. While IRA's share of local governments total receipts constituted 40 and 64 percent in 1991 and 2000, respectively, dependency differ considerably (ADB 1999b; Balisacan and Hill 2003). In the late 1990s, IRA share from total revenues spanned between 35-90 percent among highly urbanized and rural local governments. Dependency is partly reflected by the ability to attract private investments. Local governments with huge tax bases, mainly those located in urban areas and cities, are more attractive for private investments compared to rural areas. Hence, a low local tax base has repercussions on the road infrastructure stock.

Despite IRA, local government spending in economic and social services sectors between 1993–2000 remained on quite the same level while spending in transport and communications contracted compared to prior the LGC implementation between 1985–1991 (Balisacan and Hill 2003). Metro Manila, Central Luzon, Southern Tagalog (both adjoining Manila), and Central Visayas (home region of Cebu City, the second largest city) had highest capital expenditures. Poorer

¹⁰ Except from DPWH, the Department of Agriculture (DA), Department of Agrarian Reform (DAR), Department of Environment and Natural Resources (DENR), and the National Irrigation Administration (NIA) invest in local roads (ADB 2001d) as part of broader national government projects aiming at improving agriculture, environment, irrigation, etc.

¹¹ Improving access to agricultural areas fall in line with the Agriculture and Fisheries Modernization Act (enacted in 1997) where each region should identify strategic agriculture and fisheries zones.

regions hardly experienced any increase at all. This is related to the decentralization process. Local governments, especially those in poor municipalities and provinces, do not have funds to perform development functions and IRA does not cover the extra costs incurred by the devolution of responsibilities (Alonzo 1999; WB 2000b). For example, between 1992–1993, almost 70,000 national government personnel were transferred to the local level and ended up on local governments' payrolls. IRA also has a disincentive effect to collect local taxes more efficiently, especially where IRA cover expenditures. Finally, the local governments' limited assessment skills and tax evasion are a problem (Krinks 2002).

Other fund sources and revenues

Except for IRA, local governments are authorized to allocate fund sources and revenues. Revenues may be local taxation, rentals and usage of public property, tax from businesses and issuance of permits, fees and licences. Funds include loans from financial institution or assistance from foreign aid donors, grants from central government or other domestic agencies (e.g., the central government-administered Municipal Development Fund). While access to the banking system and government funds has been low and directed to better-off municipalities, the ability to raise local revenues also favors more well-off regions. In year 2000, three regions—Metro Manila, Region IV-A (the two representing the country's manufacturing belt), and Central Luzon—collected around 70 percent of all local taxes collected by local governments (Balisacan and Hill 2003). Local governments in cities raise more revenue than those outside the urban areas.

Private participation

Since 1992, the infrastructure sectors have undergone structural changes through privatization (transfer of ownership and management), deregulation, and liberalization (dismantling monopolies and oligarchies) (NEDA 1998; Serafica 2000).¹² As the government's capacity was insufficient, private sector investments were essential. A system encouraging private sector participation and financing had been endorsed in 1973 (Presidential Decree 1113) but was not carried out due to political obstructions and delays. According to Serafica (2000), the government's impetus for change in policy was not a result of theory or ideology, but rather disenchantment over the performance of the various sectors under the old regime (both public and private monopoly provision) and shortage of public funds (insuf-

¹² Provision of rural infrastructure is complex institutionally and costly in terms of administration and supervision. Donors have, with limited success, tried to improve the local road network's weak conditions and institutional capacity (WB 1995; ADB 1999a). Another problem is insufficient revenue collection and tax evasion (Manasan 2000; IMF 2002; ADB 2003; Balisacan and Hill 2003). If tax revenue collection fails in the national level, few resources trickle down to local governments as IRA.

ficient saving rates). Increased transport demand, due to sustained economic growth, also resulted in more liberal policies (NEDA 2001).

Through the enactment of the BOT law in 1990 (amended in 1993), the private sector's role as the main engine for national growth and development was acknowledged. BOT schemes provided the private sector with ways to invest, construct, operate, and maintain projects. So far, BOT schemes in the road sector (Table 1) has been a failure (DPWH 1999; WB 2000a; ADB 2000; NEDA 2001) while performance in other infrastructure sectors has been more successful (see Llanto 2004 for review). Until 2002, only three private-public partnership projects, all directed towards Manila, had been completed or were under operation (DTI 2004).¹³ No significant private sector road project has been implemented outside of Metro Manila (WB 2000b). As a comparison, in 2002, official development assistance (ODA) in physical infrastructure (ongoing and/or approved projects) was higher than BOT investments (Llanto 2004). Of the total US\$7.413 million ODA investments, US\$4.556 was directed to the transport sector and US\$2.542 to the road and bridge subsector. Of the total US\$7.304 million BOT investments, US\$3.312 was directed to the transport sector and US\$1.866 to the road and bridge subsector.

Table 1 shows, among others, that:

- ◆ solicited and unsolicited BOT projects on local government unit level are very limited, BOT projects take place on national level;
- ◆ the total transport sector and road/bridge subsector received only 24 percent and 11 percent, respectively, of total solicited and unsolicited national and local government unit BOT projects, while the power and water sectors received 38 and 34 percent, respectively;
- ◆ no BOT project was allocated to the transport sector or the road and bridge subsector on local government unit level; and
- ◆ of the road subsector, at least three (Metro Manila Skyway, Manila-Cavite Toll Expressway, and Manila North Luzon Tollway) were projects under private-public partnership (joint ventures).

¹³ The regional growth strategy, initiated in 1992, focused on one growth center in each region outside Manila, which would be provided with necessary infrastructure to support industrialization. The "flagship concept" was introduced to focus on strategic projects within and between growth centers. However, several centers are not operational as there are too many centers scattered throughout the country competing for the same investment and industries (NEDA 1998). This strategy is not new in the Philippines. It follows similar planning attempts in the 1950s. Planners were positive, initially, to the idea of several secondary cities in a network. Later, they stressed that, perhaps, it was more economic to have growth in the primate city, Manila (Ullman 1980). Of the total 42 BOT-projects completed, operational, and awarded until December 31, 2004, three were in the transport sector: (i) The Light Rail Transit Line No. 3 (MRT 3), (ii) The Metro Manila Skyway (Stage 1), and (iii) The Manila-Cavite Toll Expressway. The three projects totalled US\$1.2 billion equivalent to 7.5 percent of total US\$16 billion invested in BOT-projects (DTI 2004). Of the 42 projects, 29 were in the power sector, five in the water sector, and four in information technology, property development and others. Of all projects, the US\$7 billion water privatizing project of the Metropolitan Waterworks and Sewerage System (MWSS) stands out.

Table 1: National government and local government unit solicited and unsolicited BOT projects as of March 31, 2002 (estimated project cost in US\$ million)

	Transport						Total
	Power	Roads	Others	Water	IT*	Others**	
National solicited BOT projects	8.729	1.587	1.139	7.406	272	532	19.667
- Completed/operational	6.241	550	655	7.175	65	415	15.101
- Awarded (under or for construction)	2.488	443	-	-	207	-	3.138
- Bidding stage	-	-	-	-	-	117	117
- Projects under feasibility study/tender document preparation	-	594	484	114	-	-	1.192
- Potential projects	-	-	-	117	-	-	117
Local government unit solicited BOT projects	5	-	-	14	0.4	58.5	79.6
- Completed/operational	-	-	-	-	-	24	24
- Awarded projects	5	-	-	14	-	14	33.6
- Projects at bidding stage	-	-	-	-	-	-	-
- Projects under feasibility study/tender document preparation	-	-	-	-	0.4	20.5	20.9
- Potential projects	-	-	-	-	-	-	-
National unsolicited BOT projects	850	1.208	2.121	1.193	-	9	5.372
- Completed/operational	-	-	-	600	-	-	600
- Contract award	850	478	1.121	165	-	9	2.623
- Undergoing price challenge	-	-	-	-	-	-	-
- For second pass approval (ICC/local sanggunian) / for price challenge	-	730	1.000	68	-	-	1.798
- Negotiation	-	-	-	-	-	-	-
- For first pass approval (ICC/local sanggunian)	-	-	-	350	-	-	350
Local government unit unsolicited BOT projects	-	-	-	-	-	15.5	15.5
- Contract award	-	-	-	-	-	4	4
- Undergoing price challenge	-	-	-	-	-	-	-
- For second pass ICC/local sanggunian approval/for price challenge	-	-	-	-	-	-	-
- For first pass ICC/local sanggunian approval	-	-	-	-	-	11.5	11.5
Total	9.584	2.795	3.260	8.613	272	615	25.134

Note: Costs may not match completely with totals due to rounding.

* Information technology.

** E.g. property development, waste management.

Source: Author's summary from Llanto 2004

Several problems—such as constitutional restrictions against foreign participation in most infrastructure sectors to 40 percent partnerships with local companies, currency depreciation (ADFAT 1998), macroeconomic instability, low domestic savings, low demand outside Metro Manila, and political instability—restricts private sector participation in the transport sector. In road infrastructure projects, the major problem has been “right-of-way” acquisition (Llanto 2004). The problem to attract private funding was apparent when the 1998 Philippine Transport Strategy Study noted: “The relationship between the government and the private sector does not necessarily represent an optimal division of risk and responsibility (NEDA 1998).”

The local level – case study of Infanta municipality, Quezon province

Since the LGC enactment, local governments responsibility for project planning, funding, and implementation has increased. As a planning body, the local government is believed to have more local knowledge and, therefore, better prepared to make decisions and improve implementation efficiency. For instance, according to Alonzo (1999), many studies on the devolution process have found successful cases where local government units have improved efficiency in village road construction, spending only T! of the costs of similar roads constructed by the DPWH. While having this in mind, it should also be remembered that initial experiences of local governments as a transport authority in the early 1990s was carried out under financial constraints. The problem to attract private investment in rural areas was a persistent problem in the 1990s and was acknowledged in the Medium Term Development Plan 1999–2004 (NEDA 1999). It was stressed that in remote rural communities with weak markets, the government may provide necessary assistance. As more major infrastructure in urban areas was to be performed by the private sector, the government could allocate more funds to rural areas.

Lack of funds is a main reason for the local networks poor condition. Low creditworthiness, poor access to long-term funds due to a weak capital market, and political instability (the short three-year term for local officials) explain weak private sector involvement in local government infrastructure project. Other reasons are various fund sources, lack of coordination, and absence of an allocation system prevent efficient and sustainable management of the network.

Several national government agencies are engaged in local roads to some extent. Roads can be built without any local government consultation or coordination. Thereafter, roads are handed-over to the local government for maintenance but without budget allocation (ADB 2000; 2001d). The LGC stresses that national agencies with implementation functions shall coordinate with the local govern-

ment and ensure their participation, both in the planning and implementation of projects. While actor's priorities may not be in accordance, local governments often accept due to weak financial capacity. This is a response to cost-sharing between national agencies and local governments where the former subvert the process of devolution by demanding cost-sharing. Funds from national agencies are used to implement projects at the local level, regardless of local needs, because local governments cannot come up with matching funds due to insufficient IRA. To raise funds is related to control of budget. Despite decentralization and devolution, national agencies control almost 80 percent of budgetary resources, leaving much of project design and budget control in the hands of these agencies, not the local governments (WB 2000b).

The LGC states that: "A local government may enter into contracts with any duly prequalified individual contractor, for the financing, construction, operation, and maintenance of any financially viable infrastructure facilities, under the BOT agreement..." The local development council should confirm BOT agreements. Further, it is the municipal engineer who prepares the plans and specifications for BOT projects. After publishing a project to the public, open bidding starts where the lowest bidder is awarded the contract if it complies with minimum requirements. Once a contractor is selected, he/she should be entitled to investment return by authorizing the contractor to charge and collect reasonable tolls, fees, and rentals for using the project facility not exceeding those proposed in the bid and contract. Collection of charges should not exceed 50 years. During this time, the contractor shall provide all necessary maintenance and repair needed. Even though the BOT law allows LGUs to enter into BOT arrangements with private investors, there has been a lukewarm interest. Only one local government infrastructure project has been completed under the BOT law, another three has been awarded, seven are under development, and 13 appear on a potential short list (Llanto 2004).

Infanta, 1990–2001

Given what has been discussed so far, it is of interest to study what has materialised in a real case on local level. In order to investigate how policies has been implemented on the local level, the remaining part of this section deals with Infanta municipality, Quezon province. Infanta is a rural agricultural municipality located approximately 150 kilometers east from Manila along the Pacific Ocean. Total population in year 2000 was 50,000. The municipality's total road length measured 215 kilometers between 1990–2001, spread out over 340 square kilometers, among 36 villages. Of total road length, village roads constitute 53 percent, national roads 29 percent, provincial roads 17 percent, and municipal roads only one percent.

Transport infrastructure condition between 1990–1994

Between 1990–1995, no road constructions or improvements on the municipality's network were undertaken (Infanta 1995). While the streets in Infanta town proper were paved, the street condition was very poor, only four out of 18 were classified as having above 50 percent good condition. Condition on village roads was even more insufficient. Of 32 village roads, 11 were partly paved with concrete. Gravel covered 75 percent of the total length and earth, 20 percent. Half of all the roads had very poor condition and only less than a tenth of the village roads were very good.

Transport infrastructure improvements since 1995

With the incoming local government in 1995, institutional reforms, tax collecting skills, and various licensing and permit fees were introduced. Institutional reforms followed policies in the LGC, e.g., public and private partnership and participation in political decisions affecting the community. Transparent bidding procedures in public projects were also introduced. Finally, the local government appropriated (in accordance with the LGC) 20 percent of total IRA for development projects. In line with the national government policy, the local government has also focused on upgrading and maintenance of the road network within the municipality.

Between 1995–1998, 14 village roads were partly paved with concrete. Of these, five had no concrete before 1995 and the remaining had between 2–13 percent concrete paving. Aside from paving, 22 village roads were maintained and upgraded, equivalent to 61 percent of all roads. However, measurement often only covers a few hundred meters. Between 1999–2004, no unconsolidated data is available for the local government, but given the increase in expenditures (Table 3), focus were on road construction. Aside from the local government, one national government agency was concerned in the upkeep of local roads throughout the period—the National Irrigation Administration (NIA 2005) performed maintenance on 12 kilometers of roads in 2004.

Financing and local implementation capacity

Total local government revenues (including IRA) have increased substantially since the early 1990s in Infanta (Table 2).

Locally generated revenues share of total revenues was very low until 1996, making up only 19 percent in 1994 and 1996. Between 1998–2000, local revenues increased to between 34–41 percent of total revenues. Seen in a national comparison, where IRA made up 40 and 60 percent of local government unit receipts in 1991 and 2000, respectively, IRA made up 60 and 59 percent in 1991 and 2000, respectively, in Infanta. In a national rural government unit perspective where IRA's share of total revenues can reach 90 percent, Infanta's

Table 2: Infanta local government unit revenues between 1990–2001

Income category	1990	1992	1994	1996	1998	1999	2000	2001
>From local sources								
Revenue from taxation	37	108	134	225	262	344	519	391
Real property tax	172	131	265	292	482	513	361	484
Business taxes	295	425	488	793	1,199	1,594	1,801	1,777
Non-tax revenues	336	-	-	132	119	70	360	256
Receipts from economic enterprises	212	344	462	695	3,677	8,107	3,490	3,328
Fees/charges	38	69	253	414	515	6,321	795	677
Loans and borrowing	-	-	-	-	3,354	1,796	9,500	-
Other receipt	699	569	867	1,050	1,687	1,572	3,468	3,156
>From national government								
BIR allotments (IRA)	1,706	4,383	10,660	15,873	21,789	26,862	29,565	33,322
National aids	-	260	50	-	-	581	-	-
Total	3,498	6,302	13,183	19,478	33,088	42,073	49,864	43,394

Note: Revenues may not match completely with totals due to rounding.

Source: Municipal Budget Officer, Infanta Municipality.

dependency, being a rural municipality, is much lower. Thus, while the challenge to increase locally generated resources, especially since 1998, has been positive (showing both economic growth and improved revenue collection), dependency on IRA is still considerably high. Locally generated resources must increase further.

Spending in the transport sector

Given the huge increase in local government revenues in Infanta during the 1990s, it is of interest to see if this has benefited the transport sector. Table 3 shows Infanta local government unit's general fund expenditures, how much of the expenditures are directed towards the transport sector, and how much of the 20 percent municipal economic development fund (included in the IRA) is directed towards the transport sector.

Table 3 shows that expenditures in the transport sector are:

- ◆ mainly financed through the municipal economic development fund;
- ◆ almost no funds were allocated before 1997;
- ◆ between 1997–1999, expenditures were very high, spanning between 7.7 to 9.4 percent of total expenditures; and
- ◆ a decline in expenditures between 2001–2004, spanning between 2.8 to 5.1 percent of total expenditures.

Table 3: General fund and municipal economic development fund expenditures, Infanta municipality between 1991–2004 (million pesos)

	1991	1992	1993	1994	1995	1996	1997
General fund expenditures							
• Total	4.7	6.5	9.6	13.2	13.3	15.9	23.8
• Personal services	3.4	4.5	6.3	7.3	8.3	11.1	14.8
• Maintenance & other operational expenses	0.92	0.95	1.6	1.9	2	1.4	3.7
Repair & maintenance of local roads and bridges	-	-	-	-	-	-	0.55
• Capital outlay	0.02	0.04	0.23	0.2	0.07	-	0.25
• Non-office expenditures	0.37	0.39	1.2	2.8	2.8	3.3	5
- Municipal economic development fund	0.16*	0.38*	0.87	2.15	2.2	2.6	4
Infrastructure development (no dis-aggregation)	-	-	-	-	-	-	1.7
Construction, repair, maintenance of municipal and village roads	-	-	-	-	-	0.25	-
Road projects	-	-	-	-	0.37	-	-
Concreting village roads and bridges	-	-	-	0.34	-	-	-
Bridge projects	-	-	0.15	-	-	-	-
	1998	1999	2000	2001	2002	2003	2004
• Total	31.1	39.4	45.5	47	47.4	53	58
• Personal services	17.6	18.6	21.6	25	26.4	27.7	29.5
• Maintenance other operational expenses	7.5	11.3	12.8	12	10.6	13.2	14.9
Repair & maintenance of local roads and bridges	-	-	0.64	0.2	0.35	0.4	-
Construction of local roads & bridges	-	-	-	-	-	-	-
Repair, construction, maintenance roads & bridges	0.5	0.85	-	-	-	-	-
• Capital outlay	0.05	2.3	2.1	0.02	0.11	0.8	0.4
Construction of roads shoulder	-	-	-	-	-	0.25	0.1
• Non-office expenditures	5.8	7.1	8.9	10	10.3	11.4	13
- Municipal economic development fund	4.5	5.3	6.8	7.1	7.1	8.1	8.8
Construction of local roads bridges	-	-	n.d.a	1.5	1.1	1.1	2.5
Circumferential road (survey planning)	-	-	n.d.a	-	-	-	0.5
Infrastructure development (support to village projects)	-	2.4	-	-	-	-	-
Infrastructure development (no disaggregation)	1.9	-	-	-	-	-	-

n.d.a.: no data available.

* Municipal economic development fund not disaggregated.

Source: Provincial Budget Officer, Lucena City, Quezon.

Thus, the local government unit has allocated a large share of its expenditures to transport infrastructure in terms of percentage since 1997. But, given the poor condition of the local road network, expenditures in real money terms are insufficient and the road network deteriorates faster. Finally, seen from an average local government perspective, where spending in transport and communications contracted (despite IRA) compared to the period before the LGC implementation (between 1985–1991), it may be assumed that the Infanta case shows the opposite. Even though no disaggregated data exists for the period between 1985–1991, the poor investment record between 1991–1996 indicates this.

Besides spending shown in Table 3, the Office of the Municipal Agriculturist (OMA) applied for funds through the national Department of Agriculture in 2001 to gravel 21 kilometers of earth roads which were not passable during the rainy season (OMA 2005). However, OMA had not received the funds applied for. The National Irrigation Administration maintenance work in 2004 was funded by the national government (NIA 2005).

No private capital has been invested in transport infrastructure nor has there been any private-public partnership project implemented. Being rural and agricultural, economic activities and vehicle densities are very low which makes it difficult to attract private capital and to implement BOT-projects. Neither has there been any private sector investment in the transport sector in the first district of Quezon province, according to officials at the DPWH first district headquarter (DPWH 2005). The DPWH is, nevertheless, engaged from time to time in road projects in Infanta. The road between Infanta town proper and Dinahican village is classified as national and, therefore, falls under DPWH's responsibility. However, implementation is very slow. In late 1999, concreting of a couple of hundred meters was carried out. Then, concreting started once again in 2001. In 2005, approximately six of the 12-kilometer road stretch is concreted. Funding takes place through the Countrywide Development Fund system (pork barrel). The Congress hands out funds allowing congressmen to allocate money for projects in their constituencies. The projects must be implemented by a government agency. Allocation often coincides with election.

For the local government to allocate funds to upgrade the road network covering 114 kilometers (excluding national roads) is an improbable task, especially if the local government is the main financier. Deterioration has reached levels where the local governments ability to cover costs and facilitate technical skills is not possible given present conditions. As a consequence, inadequate transport infrastructures continue to be a persistent problem. Whether the local government is able to shoulder costs will most likely boil down to priorities and development objectives. While the local tax base is, theoretically, growing as total population increased from 35,000 in 1995 to 50,000 in 2000, a huge majority belongs to poorer

strata, earning even below the level exempted from income tax. As such, these people contribute almost nothing to the local government budget, while they, at the same time, need and demand various social services.

While there are a number of local construction firms present, the problem is in their capacity. Commonly, these firms have licence category C only, which means that they are only allowed to contract small projects (excluding roads and bridges). According to one construction firm, they applied to upgrade their certificate in 1999 to enable them to acquire road and bridge projects up till three million pesos. However, due to lack of experience, the application was not approved. This was the most skillful and experienced local private construction firm. Another firm expressed 'inconveniences' on local government level. The local government promised projects to the firm if they could borrow capital to invest in a truck enabling them contract larger projects. The promise was withdrawn. One can only question whether these instances are expressions of institutional corruption where the local government impedes private firms from acquiring capital and licenses to hinder them from acquiring projects.

CONCLUSIONS

Through the Local Government Code enactment in 1991, much of the national government's responsibilities (local roads among others) were handed over to the local government unit. At the same time, private sector participation in transport infrastructure provision was encouraged and regarded as the engine for national economic growth and development. Change in policies may also have been an outcome of the national government's dissatisfaction with previous poor performance and shortage of public funds. At present, it seems that many of the previous problems found at national government level have, through decentralization and privatisation, been relocated down to the local level. Such policies work for the detriment of economically weak rural areas, if not supported properly. Policy changes have had implications, both on national and local levels.

In terms of performance, the increase in IRA from the national government down to the local government units has been substantial since the implementation of the LGC. However, other responsibilities devolved to the local government unit outperform the funds allocated. As such, expenditures allocated to the transport sector, particularly the road subsector, may have increased in terms of percentage spending but still insufficient in terms of real money. It is the richer regions (with much higher tax base and an attractive environment for private investments) where spending in transport and communications have increased. Whereas, in poorer regions, spending hardly increased at all. However, there are exceptions. The Infanta case shows that spending increased substantially in terms of percentage

and real money, although at a very low level and still very much insufficient. As a result, the local road network deteriorates faster in comparison to funds allocated to improve its condition. Despite increase in locally generated revenues since 1997, Infanta municipality is very dependent on IRA.

Private sector participation and investments, as well as private-public partnership projects, in the road subsector has been a huge failure since the implementation of the BOT law. Except for a few projects on the national level, no road project has been implemented by the private sector or through private-public partnership in rural areas. Numerous risks perceived on the national level and poor transport demand (both passenger and goods) owing to small population and low economic growth reinforce the private sector's reluctance to invest in projects in rural areas. The Infanta case also shows that no such projects have been implemented in this rural agricultural municipality. As for the future, if the urban areas are unable to attract private investment, it is unlikely that such investments will find its way down to the local government unit in rural areas. This will put further pressure on already strained local government budgets. Adding to this is the local construction firms' insufficient implementing capacities and/or whether they are prevented from entering the market. Such obstructions have a long history in the country.

Other implications are poor institutional skills, lack of a uniform method to choose infrastructure projects, and involvement of numerous actors with implementing power. These result in ambiguous and politicised process of selection at the local level. In 1995, the incoming mayor of Infanta implemented a more strict bidding process, tax collection, and implementation of the municipal economic development fund. This shows the importance of political will (or an entrepreneurial politician) to implement the responsibilities devolved through the LGC. However, the Infanta case also shows how the local government unit's power to restrict the private sector from participating in construction projects can bring about dissatisfaction. Finally, involvement of other actors is very limited in Infanta.

Taken together, this has implications on distribution of resources, especially between urban and rural areas. Distribution of transport infrastructure, not applied to a general planning strategy, run the risk of being disadvantageous for 'less attractive' areas when private sector provision increases. Also, when local governments are responsible for local roads, differences in levels of economic well-being reinforces spatial disparities. Rural municipalities with limited revenue resources and tax base run the risk of falling further behind by being dependent on the national IRA. This dependence is risky as national revenue collection is a major problem. When national revenue collection fails, IRA to the local government unit also suffers. Too much dependency on IRA may also be a disincentive for the local government unit to generate revenues.

In summary, the government's overall goal in the early 1990s to integrate urban and rural areas (thereby linking the industry and agriculture sectors) by improving the road network has been a failure, so far. Funds are simply not enough. Insufficient funds (previously in the hands of the national government), failure to attract the private sector and encourage private-public partnerships only meant that the huge problem has just been relocated from one administrative level to another.

As for the future, and viewed in a wider context, the poor interconnectivity between the national and local road networks together with persistent poor road condition due to lack of maintenance have repercussions on the overall economic development. Owing to the location pattern of the Philippine manufacturing sector in Manila and its adjoining provinces in Region III and IV-A (the country's manufacturing belt together with Metro Manila), a large share of public expenditures have been allocated to these regions. The cemented location pattern works as a detriment for economically weak rural provinces and municipalities. This has been an everlasting problem in Philippine history and dates back several hundred years ago when Manila was chosen as a harbour for the Spanish galleon trade and grew to become a primate city in the East. Whether decentralization attempts and increased private sector participation will alter this situation is, perhaps, too early to judge. But after almost 15 years since the implementation of the LGC and the BOT law, the road network is still in a sorry state.

REFERENCES

- Ahmed, A.K.F. 1997. Rural transport planning in developing countries: gender and social class bias. *Journal for the Eastern Asia Society for Transportation Studies* 2(5).
- Allmendinger, P. 1997. *Thatcherism and planning: the case of simplified planning zones*. Aldershot, Hampshire, UK: Ashgate Publishing Ltd.
- . 2001. *Planning in postmodern times*. London: Routledge.
- . 2002. *Planning theory*. New York: Palgrave Macmillan Ltd.
- Allport, R., G. Key, and C. Melhuish. 1998. A new approach to setting the future transport agenda. ADB Occasional Paper no. 16. Manila: Asian Development Bank.
- Alonzo, R.P. 1999. Local governance and poverty alleviation. In A.M. Balisacan and S. Fujisaki (eds.) *Causes of poverty: myths, facts and policies*. Quezon City: University of the Philippine Press.
- Antipolo, S.B. 1996. *Strengthening rural-urban linkages as an alternative strategy for regional development*. Mindanao: Mindanao Center for Policy Studies, University of Southeastern Philippines.
- Asian Development Bank. 1997. Impact evaluation study of bank operations in the road sector in the Philippines. Impact Evaluation Study Series No. 50. IES:PHI97039. Manila.
- . 1999a. Local roads study – terms of reference. Manila.
- . 1999b. Report and recommendation of the President to the board of directors on a proposed technical assistance loan and grant to the Republic of the Philippines and the Landbank of the Philippines for the LGU–private infrastructure project development facility. Manila.
- . 2000. *Private sector development strategy*. Manila.
- . 2001a. *Private sector operations strategic directions and review*. Manila.
- . 2001b. *Annual Reports 2001* [online at www.adb.org/PrivateSector/default.asp].
- . 2001c. *Paving the way to poverty reduction through better roads*. Manila.
- . 2001d. *Technical assistance to the Republic of the Philippines for the rural road development policy framework*. TAR: PHI 35168. Manila.
- . 2003. *Asian development outlook 2003: the Philippines*. Manila.
- Australian Department of Foreign Affairs and Trade (ADFAT). 1998. *The Philippines. Beyond the Crisis*. ACT, Australia.
- Augenblick, M. and B.S. Custer, Jr. 1990. *The build, operate, and transfer (bot) approach to infrastructure projects in developing countries*. Working Paper Series No. 498. Washington D.C.: World Bank.

- Balisacan, A.M. and H. Hill. 2003. An introduction to the key issues. In A.M. Balisacan and H. Hill (eds.) *The Philippine economy: development, policies and challenges*. Oxford: University Press.
- Banister, D. 1994. *Transport planning in the UK, USA and Europe*. London: Chapman and Hall.
- Banister, D. and J. Berechman. 2000. *Transport investment and economic development*. London: UPL Press.
- Bickerstaff, K., R. Tolley, and G. Walker. 2002. Transport planning and participation: the rhetoric and realities of public involvement. *Journal of Transport Geography* 10(1).
- Bird, R. 1994. Decentralizing infrastructure. for good or for ill? Policy Research Working Paper No. 1258. Background paper for World Development Report 1994. Washington D.C.: World Bank.
- Bollard, A. and M. Pickford. 1998. Deregulation and competition policy in the transport sector in New Zealand. *Journal of Transport Economics and Policy* 32(2).
- Coronel, S.S. 1998. Pork and other perks: corruption and governance in the Philippines. Manila: Philippine Centre for Investigative Journalism.
- Cypher, J.M. and J.L. Dietz. 1997. *The process of economic development: theory, institutions, applications and evidence*. London: Routledge.
- Debande, O. 2002. Private financing of transport infrastructure: an assessment of the UK experience. *Journal of Transport Economics and Policy* 36(3).
- Department of Interior and Local Government (DILG). 1991. *The Local Government Code of the Philippines* [online at www.dilg.gov.ph].
- Department of Public Works and Highways (DPWH). 1999. *ROAD Handbook in the Philippines '99*. Manila.
- Department of Trade and Industry (DTI). 2004. List of completed/operational and awarded projects as of 31st December 2002 [online at :www.geocities.com/ccpsp/projects/PROJECTS_COMPLETED.htm].
- Duffy-Deno, K.T. and R.W. Eberts. 1991. Public infrastructure and regional economic development: a simultaneous equations approach. Reprinted in H. Hansen (ed.) *Regional policy and regional integration*, 1996. Cheltenham: Edward Elgar Publishing Ltd.
- Farrell, S. 1999. *Financing European transport infrastructure: policies and practice in Western Europe*. London: MacMillan Press Ltd.
- Friedman, J. 1987. *Planning in the public domain: from knowledge to action*. Oxford: Princeton University Press.
- Gakenheimer, R. 1997. Sustainable transport and economic development: a comment. *Journal of Transport Economics and Policy* 31(3).

- Ghosh Banerjee, S. and M.C. Munger. 2004. Move to markets? an empirical analysis of privatization in developing countries. *Journal of International Development* 16(2).
- Goetz, A.R. 2002. Deregulation, competition, and antitrust implications in the US airline industry. *Journal of Transport Geography* 10(1).
- Grant-Muller, S.M., P.J. Mackie, J. Nellthorp and A.D. Pearman. 2001. Economic appraisal of European transport projects: the state-of-the-art revisited. *Transport Review* 21(2).
- Gwilliam, K. 1997. Sustainable transport and economic development. *Journal of Transport Economics and Policy* 31(3).
- Heggie, I.G. 1995. Commercializing Africa's roads: transforming the role of the public sector. *Transport Reviews* 15(2).
- Heymann, H. 1965. The objective of transportation. In G. Fromm (ed.) *Transport investment and economic development*. Washington D.C.: The Brookings Institution.
- Hossain, M. I. Islam and R. Kibria. 1999. *South Asian economic development; transformation, opportunities and challenges*. London: Routledge.
- Howe, J. 1997. Affording rural transport. *Forum News* 5(2) [online at <http://www.ifrtd.gn.apc.org/new/index.htm>].
- Infanta Local Government. 1995. Infanta Socioeconomic Profile (ISEP). Infanta, Quezon Province, Philippines.
- International Monetary Fund (IMF). 2002. Philippines: report on the observance of standards and codes – fiscal transparency module. Country Report No. 02/216. Washington D.C.
- Keeble, L. 1952. *Principles and practice of town and country planning*. London: Estates Gazette.
- Kimsan, M. 2001. Rethinking governance structures, Cambodia's sector-wide approach. *Forum News* 9(2) [online at <http://www.ifrtd.gn.apc.org/new/index.htm>].
- Krinks, P. 2002. *The economy of the Philippines: elites, inequalities and economic restructuring*. London: Routledge.
- Lall, A. and R. Tay. 1996. Private provision and financing of infrastructure in ASEAN. *Logistics and Transportation Review* 32(1).
- Leinbach, T.R. 2000. Mobility in development context: changing perspectives, new interpretations, and the real issues. *Journal of Transport Geography* 8(1).
- Llanto, G.M. 2004. *Infrastructure development: experience and policy options for the future*. Perspective Paper Series No. 7. Makati City: Philippine Institute for Development Studies.

- Manasan, R.G. 2000. *Improving tax administration: a new view from the theory of tax evasion in a corrupt regime*. PIDS Policy Notes 2000-11. Makati City: Philippine Institute for Development Studies.
- Mashiri, M. 2001. Good governance and capacity building, two sides of the same coin. *Forum News* 9(2) [online at <http://www.ifrtd.gn.apc.org/new/index.htm>].
- Maskell, P. 2001. Regional policies: promoting competitiveness in the wake of globalisation. In D. Felsenstein and M. Taylor (eds.) *Promoting local growth: process, practice and policy*. Aldershot, Hampshire, UK: Ashgate Publishing Ltd.
- National Economic Development Authority (NEDA). 1992. *National physical framework plan 1993-2022 (a policy agenda)*. Manila.
- . 1998. *Philippine transport strategy study*. Manila.
- . 1999. *Medium-term Philippine development plan 1999-2004*. Manila
- . 2001. *Medium-term Philippine development plan 2001-2004*. Manila.
- Nijkamp, P. and E. Blaas. 1994. *Impact assessment and evaluation in transportation planning*. Dordrecht, Netherlands: Kluwer Academic.
- Nyström, J. 1999. *Planeringens grunder: en översikt*. Lund, Sweden: Studentlitteratur.
- Rathery, A. 1993. Traffic flow problems in Europe. *Transport Reviews* 13(1).
- Serafica, R.B. 1998. An Assessment of Infrastructure Policies. PIDS Discussion Paper Series 1998-07. Makati City: Philippine Institute for Development Studies.
- Stiglitz, J.E. 2003. *Globaliseringen och dess kritiker*. Stockholm: Leopard Förlag.
- Thompson, W.S. and W.V. Villacorta. 1996. *The Philippine road to NIC-hood*. Manila: De La Salle University.
- Ullman, E.L. 1980. Trade centres and tributary areas of the Philippines. In R. Boyce (ed.) *Geography as a spatial interactio*. Seattle: University of Washington Press.
- Walker, C. and A.J. Smith. 1995. *Privatized infrastructure: the build operate transfer approach*. London: Thomas Telford Publications.
- Westholm, E. 2002. Partnership in the rural society: the route to a knowledge-based economy? *European Spatial Research and Policy* 2.
- World Bank (WB). 1993. *The East Asian miracle: economic growth and public policy*. Oxford: Oxford University Press.
- . 1994. *World development report 1994*. Oxford: Oxford University Press.
- . 1995. Philippines: second rural finance project. Staff Appraisal Report No. 13116-PH. Washington D.C.
- . 1996. *Sustainable transport: priorities for policy reform*. Washington D.C.

- . 2000a. Private solutions for infrastructure: opportunities for the Philippines. Washington D.C.
- . 2000b. Philippines. Rural development and natural resource management: trends, strategy implementation, and framework performance indicator system volume II. A joint report of the Government of the Philippines and the World Bank, Rural Development and Natural Resources Sector Unit, East Asia and Pacific Region.

Other sources:

Department of Public Works and Highways (DPWH), Manila.

Department of Public Works and Highways (DPWH), First District Office, Lucban, Quezon.

Interviews:

Municipal Budget Officer, Infanta Municipality, Quezon Province, Philippines.

National Irrigation Administration (NIA). Infanta Municipality, Quezon Province, Philippines.

Office of the Municipal Agriculturist (OMA). Infanta Municipality, Quezon Province, Philippines.

Provincial Budget Officer, Lucena City, Quezon Province, Philippines.