Mandanas Ruling and Potential Implications for the Farm-to-Market Road Development Program

A Public Expenditure Review

JUNE 2021

Agriculture and Food Global Practice
Macroeconomics Trade and Investments Global Practice
Transport Global Practice

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

Mandanas Ruling and Potential Implications for the Farm-to-Market Road Development Program

A Public Expenditure Review

JUNE 2021

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

Photo credit: Department of Agriculture (DA) and Philippine Rural Development Project (PRDP)

Acknowledgments

This report was produced by a multi-sectoral team from the World Bank Group, led by Eli Weiss and Anuja Kar, with the lead authors John Nash and Nora Oliveros. Rong Qian, who is leading the overall engagement on Mandanas, provided guidance. Inputs from Fang Xu, Hope Gerochi, Maria Theresa Quinones, Carolina Figueroa-Geron, and Paula Beatrice Macandog are appreciated. Kelly Cassaday edited the report, Michelle Lomibao formatted it, and Mildren Penales provided administrative and logistical support. Peer reviewers Fermin Adriano, Souleymane Coulibaly, and Ghada Elabed suggested useful improvements. Clarissa Crisostomo David and David Llorico Llorito supplied additional guidance, and Dina Umali-Deininger, Madhu Raghunath, Achim Fock, and Ndiame Diop provided oversight for the work.

The team thanks the Department of Agriculture (DA) and the Department of Budget and Management (DBM) for their excellent collaboration, including the organization of meetings and the provision of information and other essential inputs. Special thanks go to the DBM Budget Policy and Strategy Group, the DA Office of Policy and Planning, the DA Office for Special Concerns and its Bureau of Agriculture and Fisheries Engineering, and the DA Office of Regional Field Operations. Finally, the team thanks all of the focal points and staff of the various agencies contributing to this work, and all other actors from the public and private sector and academia, for their constructive engagement, participation in numerous meetings and phone calls, and written and oral input into this report.

Currency Equivalent

Exchange rate effective as of May 31, 2021

Currency unit	= Philippine peso (PHP)
US$1.00	=47.8

Acronyms and Abbreviations

ABEMIS	Agricultural and Biosystems Engineering Management Information System
BAFE	Bureau of Agriculture and Fishery Engineering
BESF	Budget of Expenditures and Sources of Financing
CMGP	Conditional Matching Grant to Provinces
CSO	Civil Society Organization
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DILG	Department of the Interior and Local Government
DOT	Department of Tourism
DPWH	Department of Public Works and Highways
DTI	Department of Trade and Industry
EF	Equalization Fund
FMR	Farm-to-Market Road
FMRDP	Farm to Market Road Development Program
FY	Fiscal year
GAA	General Appropriations Act
GDP	Gross Domestic Product
IRA	Internal Revenue Allotment
IRR	Internal Rate of Return
KALSADA	Concrete and Well-Maintained Road towards Inclusive Development (*Konkreto at Ayos na Lansangan ang Daan Tungo sa Pangkalahatang Kaunlaran*)
LGC	Local Government Code
LGU	Local Government Unit
M&E	Monitoring and Evaluation
NCR	National Capital Region
NGO	Nongovernmental Organization
NIA	National Irrigation Administration
O&M	Operations and Maintenance
ODA	Overseas Development Assistance

PCF	Performance Challenge Fund
PER	Public Expenditure Review
PMO	Project Management Office
PIDS	Philippine Institute of Development Studies
PRDP	Philippine Rural Development Project
RAED	Regional Agricultural Engineering Division
RFU	Regional Field Unit

Contents

Executive Summary

Executive Summary

Farm-to-market roads (FMRs) provide "last kilometer" connectivity for bringing inputs to farmers and taking their production to distant markets. The quality and quantity of these roads has a big impact on transport costs for farmers; good roads close to farms lower production costs and raise the prices that farmers get for their products. As part of the government's "Build, Build, Build" initiative, the Department of Agriculture (DA) has accorded FMRs high priority and has invested heavily in recent years in roads to enhance accessibility and trigger economic activity in remote agricultural areas. In recent years (2019–21), FMR projects received about 18% of the DA's total budget. FMR construction is also a component of several special projects. For instance, under locally funded projects, total constructed FMRs as of 2017 have reached 392 km, while foreign-assisted projects have built an estimated 2,072 km as of December 2017.

The World Bank was requested to carry out a rapid Public Expenditure Review (PER) focusing on the DA FMR Development Program. While this exercise would be useful under any circumstances, it is especially timely in view of the "Mandanas ruling" of the Supreme Court. This ruling requires the central government to increase the Internal Revenue Allotment (IRA)—the share of government tax revenue going to the Local Government Units (LGUs)—starting in 2022. Since it will be sharing more revenue with the LGUs, the central government intends to devolve more responsibilities to them for administering and funding projects and programs. Exactly how this devolution will affect the FMR Development Program is yet to be precisely defined, and the PER is intended to help plan this process.

Findings of the Review

While the budget for the national road program as a whole has been increasing significantly in recent years, the share of the road program budget devoted to FMRs has been declining, falling from 7.6% of the total in 2015 to 2.6% in 2021 (projected). Even in absolute terms, the FMR budget has been reduced from PHP14.9 billion in 2015 to PHP10.4 billion in 2021.

One reason for the budget reductions is the program's poor performance, including an apparent under-utilization rate of 70% in 2019—meaning that only 30% of the budget for FMRs was actually disbursed – and 58% in 2020. Some of this underspending may simply reflect under-reporting, but it is not clear to what extent this is the case. Factors contributing to actual underspending may include the fragmented approach by which the FMR Development Program is managed, with generally poor supervision of the Regional Field Units (RFUs) charged with screening proposals and inadequate time for them to do so. The Bureau of Agriculture and Fishery Engineering (BAFE) in the DA was established in 2020, and its responsibilities include this supervisory function. This development is very positive, but it is too soon to observe its impact.

Criteria that the DA has said it uses to allocate FMR funds include poverty incidence and proximity of production areas, but the extent to which these criteria are applied in practice is not clear. For example, Luzon—which has received the bulk of the FMR budget—has the lowest incidence of poverty, while the Visayas and the Mindanao areas with the highest poverty incidence only received half of the budget combined. The DA has yet to identify or consolidate the specific location of key production areas based on the regional and local development plans, as well as the road network plans of the various LGUs. It will also be useful to add to these criteria the overall benefit-cost ratio of projects, based on high quality economic analysis, as discussed below. This is another task that the BAFE is working on.

It is far from clear how devolving more responsibilities for the FMR Development Program to the LGUs would improve the program's performance. Experience with the LGUs to date has been very uneven, with anecdotal evidence pointing to a tendency of some LGUs to use FMR funds to spread political patronage by building many short road segments rather than focusing on more complete roads that would have a much bigger impact. In addition, there seems to be a consensus that LGUs will require significant capacity building if they are to assume more administrative responsibilities, and for some important functions it may not even make sense for each LGU to have its own such capacity rather than having a central unit providing the service to them all. Furthermore, it is unclear how the myriad decisions on local road investments in a highly decentralized system would be coordinated to make a coherent contribution to the national network.

There are reasons to doubt that LGUs will in general devote adequate resources to FMRs. The IRA funds come as block grants; because these funds are not earmarked for specific purposes, the LGUs decide how to allocate them. Experience shows that the economic sector (which includes roads) is often accorded low priority by the LGUs in spending decisions. Part of the problem is that investments like FMRs have significant "positive externalities," that is, benefits that accrue to the nation as a whole by integrating local markets into the national road network. These national benefits may not be fully taken into account in local decisions on how to allocate funds. The problem is exacerbated by the fact that LGUs are heavily dependent on the IRA, with limited authority to raise revenue on their own. Because of the Mandanas ruling, LGUs will receive incremental IRA funding, but at least one study has indicated that it is likely to be insufficient for many LGUs (around 16%) to continue to provide devolved services at the same level as currently provided by the national government.

As the DA fully recognizes, an overarching issue for the government to consider regarding devolution is to determine which functions/activities would be: (i) fully devolved to the LGUs (and which level of LGU); (ii) left to the DA; and (iii) shared between the DA and LGUs. The DA has adopted a sensible approach based on the principles that: (i) services with little or no benefit spillover are best administered and financed by lower levels of government (for example, machinery distribution at the municipal level); (ii) provision of public goods and services that involve economies of scale is best assigned to progressively higher levels of government (provincial, regional); while (iii) the DA shall set national policy, development strategies, and service delivery standards, and assess and assist the LGUs.

While these principles are reasonable, the questions raised in operationalizing them may not be so clear cut. The fact that FMRs have national positive externalities, combined with the constraints on LGU resources (even with the increased IRA funding), may result in under-investment in FMRs. According to this line of thinking, there is a good argument for having the DA play a bigger role in FMRs than in some other functions that may be devolved, at least in the planning, prioritization, and monitoring activities.

One particular problem for roads may be the under-funding of operations, repair, and maintenance. Many countries under-fund these activities, which is unfortunate, since spending on operations and maintenance (O&M) has very high returns. Poor roads greatly increase costs for vehicle operators. And according to World Bank estimates, road repair costs are 6 times higher after 3 years of neglect and 18 times higher after 5 years. Under current arrangements, LGUs are given responsibility for keeping FMRs in good condition after initial construction, but non-compliance seems to be common, with the result that

FMR conditions are reportedly poor in many localities. It seems likely that this problem will grow worse with devolution, in the absence of enhanced mechanisms to ensure compliance.

Recommendations

Because the PER was undertaken in the context of the imminent decentralization process resulting from the Mandanas ruling of the Supreme Court, some of its recommendations are specific to issues arising from that process. Some of its other recommendations are important for improving the efficiency of public spending on FMRs regardless of the Mandanas ruling, although most of these recommendations assume increased significance because of the potential shift to greater reliance on the LGUs in planning and implementing the FMR investment program.

Recommendations related to issues arising mainly from the potential for greater decentralization resulting from the Mandanas ruling

Considering the findings, particularly with respect to the current capacity and motivation of LGUs to effectively carry out the FMR investment and maintenance program, one good option moving forward may be for a number of the FMR-related functions of the DA-BAFE and the Regional Agricultural Engineering Division (RAED) of the RFUs to be retained, at least for a while. The coordination and monitoring functions of BAFE pertaining to standards and enforcement of policies and other related concerns would be among these, with RAED serving as the link between the DA and the agriculture and engineering groups at the local levels. In this way, the RAED can ensure that communication and coordination with the LGUs on national policies, standards, and related concerns are served. As discussed further below, it may also make sense to retain at the national level functions that require a critical mass of specially trained skilled staff, including project appraisal, monitoring, and impact evaluation. These functions would also include the continued development of the Agricultural and Biosystems Engineering Management Information System (ABEMIS) to capture both physical and financial data at the local level to help evidence -based decision making at the top.

Furthermore, efforts at the national level to complete an inventory of existing roads (including FMRs) and to develop a nation-wide master plan for new investments (again, including FMRs) deserve high priority. An accurate inventory and overall master plan will be essential tools for decision making at both national and local levels to avoid fragmentation of the network. They will make all of the options described below more effective. This will provide a clearer picture of the nationwide gaps and highlight the priority areas for investment. It will be a useful tool to incentivize progress while reducing inclusion errors in the FMRDP portfolio and improving project accountability through transparency. A plan will also help to mitigate some of the political economy problems that have afflicted the FMR program. For example, it will impose at least some constraints on tendencies for decisions on investment priorities to be guided more by political patronage than by objective measures of costs and benefits to society. BAFE has been making progress in this direction, and its efforts should be reinforced.

But in any case, the capacity-building initiatives for LGUs have to continue. The guidelines, manuals, and guidebooks developed must be simplified, updated, and disseminated to a wider number of LGUs, especially those belonging to the lower classes of government and those which have received but lost expertise due to frequent staff turnover, especially following a change in administration. The use and application of diagnostic tools to complement the capacity-building program must continue. The PFM Assessment Tool (PFMAT) -- meant to measure public financial management (PFM) capacities and systems -- and the Seal of Good Local Governance meant to incentivize LGUs, is a perfect combination.

In addition, the central government may want to consider mechanisms to influence spending priorities of the LGUs. Options for such a mechanism include:

- An enhanced menu system. The menu would be a list of investment programs in which the LGUs may participate using the 20% budget on capital outlays. This is the current policy for using the 20% capital budget, but reported underspending may be an indication that the menu system has not been effective in providing appropriate options. The menu of options may need to be expanded. The recent Joint Memorandum Circular No. 2020-1 dated November 4, 2020 seems to be a step in this direction, although it is still too soon to see how effective this will be. It will be useful to review this after a budget cycle to see if it does indeed provide sufficient flexibility, or whether further steps are needed.

- An Equalization Fund (EF). The EF could be a grant to provide support targeted to LGUs that are incapable of carrying out the devolved functions adequately. The fund may take the form of a conditional grant that can provide a mechanism to influence and direct capital investment priorities. It is here that the menu system can be more effective, by listing and giving priority to investments with spillover effects outside the LGU jurisdictions, like FMRs and road repair and maintenance. One option for such a grant program is simply to make FMRs eligible under the ongoing Conditional Matching Grant to Provinces (CMGP) for Road Repair, Rehabilitation, and Improvement Program, which apparently does not currently cover FMRs.

- A government lending program with an IRA capture mechanism (that is, automatic deductions from the IRA transfer) for interest payment and amortization[1]. The objective of the program would be to provide an alternative source of financing for LGUs that wish to undertake additional projects from a menu of devolved projects and related investments to qualify for the lending program. This form of lending can be regulated and easily controlled by the national government. Subnational governments are allowed to borrow from the domestic financial market, but this form of lending is more challenging for the national government because it has to provide loan guarantees, raising the likelihood of over-borrowings and possibilities of bailing out LGUs that fail to fulfill their financial obligations.

Recommendations related to more general issues in FMR planning, budgeting, and implementation that were uncovered in this review

To correct the serious problem of failure to execute the allocated budget which plagues the FMR investment program—and thereby bring actual spending on FMRs more into line with the government's intentions—the government should immediately carry out an in-depth diagnostic to better understand the causes of the reported under-utilization of funds and how to resolve this issue.

To ensure that FMRs do not continue to suffer from poor maintenance, with the consequent high costs, the government needs to put in place a mechanism to: (i) systematically monitor each LGU's spending on repairs and maintenance; (ii) evaluate whether that is adequate to maintain their FMRs in good condition; and (iii) sanction LGUs that fall out of compliance with their commitment to maintain their FMRs. This needs to happen before devolution of budget for the FMR Development Program.

[1] It would need to be checked how such an automatic capture mechanism should be designed in order to be compliant with the legal requirements for IRA release as specified in the Local Government Code of 1991.

In order to (i) resolve the current duplication or overlapping of responsibilities for FMR investments among the Department of Tourism (DOT), Department of Trade and Industry (DTI), Department of National Defense, Department of the Interior and Local Government (DILG), and Department of Agrarian Reform (DAR); (ii) improve coordination of planning of FMRs to best maximize synergies with the overall road network; and (iii) avoid problems such as the "proposal shopping strategy" currently practiced by LGUs, it will be important either to consolidate the responsibilities for the FMR Development Program in a single agency or to establish a better mechanism to seamlessly coordinate budget planning among all relevant agencies and programs.

To ensure that an effective mechanism is in place to prioritize projects that have the highest potential returns, both economic and social, the DA needs to make more systematic use of evidence-based economic benefit-cost analysis in FMR investment decision making. BAFE has adopted prioritization criteria and is developing tools to quantitatively estimate economic benefits and to monitor the status of FMR projects using spatial analysis, including the ABEMIS and IROAD platforms. The government should support continued development of ABEMIS and other tools of economic analysis, as well as tools to enable ex ante analysis of social and environmental impacts of FMR projects. Investments need to be based on these tools regardless of the institutional decision-making arrangements that are established in the devolution process.

The government should give high priority to upgrading the monitoring and evaluation (M&E) process for FMR investments, and should make better use of information from this process during (i) project appraisal and selection, (ii) project execution (for real-time feedback and course correction of ongoing projects), and (iii) ex post impact evaluation for use in selecting and designing future projects. Activities in this regard must include the completion of ABEMIS, the development of some workable system for receiving real-time feedback from the LGUs on ongoing projects, and survey-based ex post analysis of impacts for selected major projects. The government may also want to consider institutionalizing some mechanism of citizen participation in the budgeting and program monitoring process to ensure transparency and accountability.

1 Introduction

Introduction

Context

Public investment in rural infrastructure is a major development priority of the Philippine government. Public investments in rural roads have proven to have powerful development benefits. By improving access to markets for agricultural inputs and outputs, rural roads reduce transaction costs, enhance market integration, make it easier for farmers to start using modern production technologies, and help rural communities to diversify their economic activities. Agriculture tends to be more productive, and poverty to be lower, in communities located near rural roads.

The Department of Agriculture (DA) has invested heavily in roads over the last three years to broaden farm-to-market accessibility and trigger economic activity in remote agricultural areas. The Farm-to-Market Road Development Program under the DA has a mandate to develop new barangay roads and road openings and improve existing roads. Almost half of all resources allocated to DA service programs in FY2020 went to farm-to-market road (FMR) projects, funded through the government's "Build, Build, Build" initiative as well as several special projects. By 2017, locally funded projects had added 392 kilometers (km) of FMRs to the local road network (about 0.2% of the total), and foreign-assisted projects had built an estimated 2,072 km (about 1.2% of the total).

Plans to devolve central government functions to local governments have significant implications for the FMR Development Program. The calendar year 2022 National Budget Memorandum issued by the Philippine government contains the policy guidelines and budget framework for preparing the 2022 national budget. It includes the devolution of selected functions to local governments that are deemed "basic services" but which are assumed by (and reflected in the budgets of) national government agencies, including the DA. While planning for devolution has progressed considerably, many decisions remain to be made and will have a major impact on investments in FMRs. In that context, this public expenditure review (PER) of the FMR Development Program was undertaken.

Objectives, Audience, and Scope of the Report

The FMR PER aims to analyze the appropriateness, efficiency, and effects of current spending on FMRs, as well as the potential impacts of the proposed devolution of the FMR Development Program under the DA, in light of the Mandanas ruling of the Supreme Court.[2] This PER will review and analyze the fiscal

[2] The subnational governments filed a motion with the Philippine Supreme Court (SC) claiming that the Internal Revenue Allotment (IRA), which determines the share of national tax revenue allocated to LGUs, was calculated erroneously and therefore denied LGUs their "just share" of those revenues. The court ruled in favor of the LGUs, and the new basis for calculating IRA will take effect in 2022. The national government expects to have fewer budgetary resources to fund public services (about PHP225.3 billion less) than it was providing prior to the court's decision. Moving forward, options for the government include: (i) increase tax rates and/or impose new taxes; (ii) increase the fiscal deficit; or (iii) stop funding some programs, activities, and projects currently funded under the General Appropriations Act (GAA) to create fiscal space for an increase in the IRA (see Manasan 2020; https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2018.pdf). Programs and services would have to be chosen that are currently being funded under the budgets of some national government agencies from the GAA, but which represent functions that are assigned to LGUs under the 1991 Local Government Code (LGC).

and institutional framework at both the national and subnational levels.[3] It will also include relevant examples of international experience from comparable countries.

This PER examines how devolution could affect the overall fiscal outlook and strategies of the government relative to spending on infrastructure in general and FMRs in particular. It reviews spending on FMRs relative to other functions and services delivered by the DA, the sources of funds, and efficiency and unintended effects due to the allocation of the FMR budget. The national-level scenarios are assessed in light of relevant international experiences. Drawing from national-level analysis and international experience, the PER then provides evidence-based recommendations to improve the efficiency and equity of spending as roles and responsibilities are devolved.

While decisions regarding the future of the FMR Development Program are in the first instance the responsibility of the central government (particularly the DA), the devolution process is of interest to a much broader audience, including the Local Government Units (LGUs) to which more responsibilities may be devolved, the community of development partners, and civil society. The findings, conclusions, and recommendations of this PER should be relevant for those groups as well.

Methodologies

This report analyzes budget data on the FMR Development Program in several ways. First, it looks at FMR spending in relation to other items in the overall national budget and in the DA budget. Second, it examines the sources for financing FMR expenditure, which are of particular interest because a large share of foreign funding is also devoted to FMRs. Third, it undertakes a simple inductive analysis to identify key issues related to allocative efficiency, based on LGU capacities. Fourth, the PER undertakes a simple congruence analysis to examine the extent to which budget allocations have been aligned with agricultural sector objectives and with the strategy to achieve those objectives.

This report devotes special attention to the complex institutional landscape in which the responsibility for FMR functions will be shared. Currently, several national government agencies implement FMRs, but only as a small component of a bigger project. The LGUs become both partners and recipients as they either receive the funds to implement FMRs or they monitor the progress of construction, in addition to their overall responsibility of identifying priorities and providing equity contributions to FMR investments, as required under the 1997 Agriculture and Fisheries Modernization Act.

[3] Due to resource and time constraints as well as COVID-19-related restrictions on travel, limited information was available on subnational spending for the PER.

2

Public Expenditures on Farm-to-Market Roads

Public Expenditures on Farm-to-Market Roads

Institutional Framework

As mandated in the 1997 Agriculture and Fishery Modernization Act (AFMA), the DA oversees and leads the FMR Development Program, with technical assistance from the Department of Public Works and Highways (DPWH). The AFMA provided the policy directives of the modernization program in which FMR is a crucial part of the infrastructure component. At its onset, FMR proposals were few and crafted for small gravel road projects coordinated with the LGUs and screened at the DA regional units. Budgets allocated until mid-2000 were also negligible. Afterward, FMR project proposals started to grow, mainly due to higher demand from LGUs, CSOs, and congress. As a result, later FMR development was featured as a separate budget item under the DA budget. Policy guidelines were issued by the DA Secretary to guide FMR implementation (coordinating, planning, budgeting, and monitoring) by the fifteen (15) regional units of DA in coordination at the local level with the DPWH district engineering offices and the LGUs. While the number of projects and budgets grew, performances of the projects didn't meet the benchmarks according to the audit and accomplishment reports. As a result, after more than twenty years the oversight for the program and other infrastructure projects were finally assigned to the Bureau of Agriculture and Fishery Engineering (BAFE) in 2018. (BAFE was created under the 2013 AFMA). The BAFE later in 2020 evolved as the FMR Project Management Office (PMO)., The DA-Regional Field Units (DA-RFUs) work with LGUs to identify FMR sites, receive LGU proposals for FMR projects, validate projects, and prepare the budget in coordination with the regional planning and budget offices (Figure 1). The central Financial and Management Services (FMS) consolidate the regional budgets for submission to the Department of Budget and Management (DBM). The budget for the FMR Development Program is appropriated under the DA but the release has been inconsistent, with allocation going to DA in some years , to DPWH in some , back to DA until 2017 and thereafter ,when funds were released again directly to the DPWH, which transfers the funds to the District Engineering Offices (DEOs). The DPWH, through its DEOs in the regions, conducts procurement for road projects, manages construction, and provides technical assistance to the LGUs. The LGUs may act either as co-implementors of road projects or simply as recipients of project benefits, but the 1997 Modernization Act requires LGUs to make a 10% equity contribution to every road project and to assume all road repair and maintenance costs after project completion.(See Annex for the most recent and full FMR Implementation Framework)

Recent changes in the legal framework and organization of the DA offer potential to improve the performance of the FMR Development Program. Passage in 2013 of Republic Act No. 10601—the Agricultural and Fisheries Mechanization Law—provided a basis for the DA to strengthen its support services such as credit, research, training, post-harvest facilities, and rural infrastructure. The 2013 Mechanization Law modified the organizational structure of the DA and was the impetus to create BAFE. BAFE now coordinates, oversees, and monitors national planning and implementation of agricultural and fisheries engineering, including FMR and other agricultural and fisheries infrastructure programs. BAFE is also responsible for overseeing and providing technical assistance to the operations of the agricultural engineering divisions of DA regional offices. Creation of the BAFE PMO in 2020 increased the potential for improving FMR implementation and obtaining additional budgetary support from the national government, yet the PMO is in its infancy and requires continuing support to realize this potential.

Beyond the DA, FMR projects are implemented in other ways:

- ➢ As noted, several other national government agencies implement FMR projects, mostly as small components of medium or big-ticket projects. For example, the Department of Agrarian Reform (DAR) develops FMR projects to connect agrarian reform sites, and the National Irrigation Administration (NIA) builds FMRs as components of irrigation systems to facilitate maintenance of canals. The Department of the Interior and Local Government (DILG) authorizes similar projects to incentivize and reward LGUs for good governance, while the Department of Tourism (DOT) constructs access roads to agro-tourism sites. These agencies and the DA act independently of each other, and no mechanism exists to ensure convergence and alignment of their respective FMR activities.
- ➢ Locally funded road projects are region specific and hence are implemented through the RFU concerned, which generally performs the PMO functions.
- ➢ Overseas Development Assistance (ODA) projects have their respective PMOs dedicated entirely to managing and providing administrative and technical support for those projects. These PMOs coordinate directly with the regional offices and the partner or client LGUs. These PMOs are guided by national ODA policies, report directly to the Office of the Secretary, Department of Agriculture and are bound to adhere to signed legal agreements with international financing institutions.

National and Subnational Spending on Farm-to-Market Roads

Fiscal constraints have generally shaped national government spending patterns, and their influence is likely to intensify. The national government has run fiscal deficits since 1990. In recent years, the deficit has increased from 0.6% of gross domestic product (GDP) in 2014 to 3.4% in 2019 (Table 1). The 2020 deficit and projections for 2021 and 2022 reflect the increase in government expenditure, financed through massive borrowing, required to cope with the pandemic and initiate a recovery. The government has had to balance the need for social services to mitigate the pandemic's socio-economic impacts with the need to maintain the current path for capital spending. Spending increased significantly to 23% of GDP in 2020 and is projected to be 20.5% of GDP in 2022.

Table 1: National fiscal program, 2014–22 (PHP billions)

Fiscal program	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenue	1908.5	2275.2	2696.8	3040.0	3390.1	3,137.5	2,519.8	2,719.4	3,034.8
% GDP	15.1	16.3	17.5	17.8	19.5	16.1	13.4	13.2	13.3
Disbursements	1981.6	2,558.9	3005.5	3379.9	3766.8	3797.7	4335.3	4467	4676.8
% GDP	15.7	18.4	19.5	19.9	20	19.5	23.0	21.6	20.5
Current Operating Expenses	1616.7	1985.7	2198.2	2389.4	2594.9	2,740.9	3,475.6	3,281.6	3,616.8
Capital Outlays	351.5	546.7	780.8	964.0	1145.4	1,039.8	832.7	1,156.8	1,031.3
Deficit	**(73.1)**	**(283.7)**	**(308.7)**	**(340)**	**(376.6)**	**(660.2)**	**(1,815.5)**	**(1,749.6)**	**(1,642)**
% GDP	**0.06**	**2.0**	**2.0**	**2.0**	**2.0**	**3.4**	**9.6**	**8.5**	**7.2**

Source: 2021 Budget of Expenditures and Sources of Financing (BESF), Department of Budget and Management (DBM).
Note: FY2021–22 numbers are based on 2020 projections.

The Mandanas ruling, issued in 2018, is expected to exacerbate this fiscal crunch. As a result of this ruling, the IRA in 2022 will increase by an estimated PHP225.3 billion, driving up spending from 20.5% of GDP in 2022 to about 21.9% and possibly increasing borrowing, because additional taxes or other revenue measures are not feasible at this time. Additional borrowing will add to the debt service level, which is hovering at 5.4%, slightly higher than the 2014 level of 5.3% but considerably lower than the highest level reached in the past 20 years (12.8% of GDP in 2006).

To accommodate the fiscal effects of the Mandanas ruling, responsibility for some central government services is expected to shift to the LGUs. Some services that are inherently local or fall within the basic responsibilities of the LGUs are funded through the budgets of national government agencies. The effects of the Mandanas ruling on overall national government spending could be neutralized by shifting these basic services back to the LGUs, along with the corresponding budgets, which are initially estimated at PHP247 billion—or at least by shifting the amount of the additional IRA (PHP225.3 billion). The national government could absorb the fiscal burden created by the Mandanas ruling over a transitional period in which services are devolved, while seizing the opportunity to implement bold reforms in the Local Government Code (LGC) that would place more emphasis on performance-based allocations to LGUs. This remedy, from a fiscal perspective, is the most feasible measure that the government may be able to implement in the current economic and fiscal situation.

However, it occurs, the shift of both funding and spending responsibilities from the national to the subnational government will have implications for the budgets, organization, and functional roles of some national departments. A case in point is the FMR Development Program of the DA. The 1997 Modernization Act and 2013 Mechanization Law reinforced the need to provide additional support to infrastructure for agriculture and fisheries, including FMRs. From the beginning, the FMR Development Program has been undertaken and funded under the DA and has accounted for the bulk of non-ODA spending on rural roads. (As noted, other departments at the national level support a smaller share of rural road projects, and a very small number are funded at the local level). A shift in FMR spending and funding to LGUs may imply a reduction in the DA FMR budget.

Trends in public spending on infrastructure and roads

Infrastructure spending has increased substantially in recent years, and demand for infrastructure is expected to remain robust as the economy recovers. Infrastructure spending rose from a low 2.7% of GDP in 2014 to 4.2% in 2020 and is projected to increase to 4.6% in 2022 (Table 2). The appetite for infrastructure spending is a product of the government's flagship Build, Build, Build Program. Many of the 'Build, Build, Build' projects are expected to be completed within 2021–22, but demand for infrastructure is projected to increase further on account of the post-pandemic recovery. The prospects for infrastructure projects to sustain their lead over other national projects appear strong, especially considering the inventory of road projects in the pipeline. On the other hand, although local government contributions to the national infrastructure program are gradually increasing, they are limited by the 20% cap on capital spending in the LGC.

National roads are gaining a growing share of the national infrastructure budget, but the share of FMRs is sliding. The share of national roads in the national infrastructure budget expanded from 32% to 44% and 1.4% to 1.9% of GDP from 2015 to 2020, and it is projected to increase further by the end of 2021. By contrast, the share of FMRs in the overall national road budget declined from 0.1% to 0.05% of GDP and 7.6% to 2.6% during the same period (Table 3).

Table 2: National infrastructure program (PHP billions)

Level	2014	2015	2016	2017	2018	2019	2020	2021	2022
National government	264.4	468.1	594.6	740.3	864.8	831.8	571.3	892.0	731.2
Subnational government	44.7	80.6	103.2	107.2	124.8	140.1	156.2	182.4	237.8
Other	37.1	47.1	68.7	29.1	29.1	78.0	58.0	46.7	49.2
Total infrastructure	**346.2**	**595.8**	**766.5**	**876.6**	**1,018.7**	**1,049.9**	**785.5**	**1,121.1**	**1.018.2**
% share national budget	**17.1**	**22.8**	**25.5**	**26.1**	**27.1**	**29.1**	**19.1**	**24.8**	**21.5**
% GDP	**2.7**	**4.2**	**5.0**	**5.2**	**5.4**	**5.4**	**4.2**	**5.5**	**4.6**

Source: BESF, DBM.

Table 3: Appropriations for Roads, including FMRs, as a share of the national infrastructure program, 2015–21 (PHP billions)

Road Program	2015	2016	2017	2018	2019	2020	2021*
National roads	180.6	271.2	297.3	405.3	255.2	338.2	393.4
FMRs	14.9	14.6	7.7	13.3	11.8	11.4	10.4
FMRs as % GDP	0.1	0.09	0.05	0.08	0.06	0.06	0.05
% share of FMRs in national road program	7.6	5.1	2.5	3.1	4.4	3.2	2.6
Total, national roads	**195.5**	**285.8**	**305.0**	**417.8**	**267.0**	**349.6**	**403.8**
% share national roads in infrastructure program	32.8	37.3	34.8	41.0	25.4	44.5	36.0
National roads as % GDP	1.4	1.9	1.8	2.4	1.4	1.9	2.0
Infrastructure outlay	**595.8**	**766.5**	**876.6**	**1018.7**	**1,049.9**	**785.5**	**1,121.1**

Source: BESF, DBM.
Note: *Projected based on 2020 data.

Table 4: Local roads completed

Location	Total km	Paved km	% paved
Province	30,132	10,256	34
Municipality	15,349	5,375	35
City	15,283	9,295	61
Barangay	116,765	7,943	7
Total	177,529	32,869	18.5

Weakening support for FMRs can largely be attributed to the poor performance of the FMR Development Program. The national government pays a premium for good performance in the provision and distribution of the budget, and the FMR Development Program appears to have under-performed, not only in terms of budget utilization but in terms of efficient utilization. The limited information available suggests that some of the FMR Development Program funding was not used efficiently. According to DPWH data, the total local road network[4] is 177,529 km (Table 4), and only 18.5% is paved. Data in Table 4 do not differentiate FMRs[5] from other local roads, but considering that FMRs are a subset of the local road network, particularly in barangay areas, it can be estimated that more than 100,000 km of local roads (which may include new road openings and roads for rehabilitation) can be classified as FMRs. The data to confirm this estimate are lacking, but the DA has reported that 27,107 km of FMRs had been developed by the end of 2017 at a total cost of PHP102.9 billion. This stock includes both new roads and rehabilitated roads paved in cement or gravel, and it excludes FMRs built by other agencies.

The current status of these roads is unclear. Many FMRs are exposed to the risk of being washed out by typhoons and floods, and it was only in 2013 that the DA upgraded construction standards for all roads from gravel to cement. BAFE is currently consolidating and updating data on the status of the FMR inventory. A review of road construction contracts reveals that some FMRs consisted only of short segments ranging from 200 m to 2–5 km, apparently as the result of efforts to distribute contracts to as many LGUs as possible—a practice that undermines the benefits of building a full-length road link. That these roads were constructed in short segments was confirmed in the Citizens Participatory Audit (CPA)conducted in 2015 by COA in collaboration with DPWH, DA, LGUs and selected CSOs. Some members of the community interviewed have expressed satisfaction over the quality of roads built but the benefits according to them could have been complete if the total length of roads were paved as well.

Sources of financing for public expenditures on rural roads

The DA funds road construction mainly through its regular appropriations, while a subset of FMRs are built using other sources of funding, independent of the DA. Financing for locally funded and foreign assistance projects that build FMRs is managed independently by the entities involved. Another occasional source of funding for FMRs comes from special funds designed to meet various objectives. Examples include the now-defunct Philippine Development Assistance Fund, which provided funding for members of congress to support local investments including FMR projects, and the Grassroots Participatory Fund

[4] Local roads include barangay, municipal, city, and provincial roads.

[5] The 1997 Modernization Act defines FMRs as roads linking agriculture and fishery production sites, coastal landing points, and post-harvest facilities to markets, arterial roads, and highways.

(Bottom Up Budgeting), which funds FMRs identified as priority projects by LGUs in concert with non-governmental organizations (NGOs) and civil society organizations (CSOs).

The DA has allocated 15% of its budget on average to the FMR Development Program since 2014. This share jumped to 21.8% in 2019, surpassing the share of small-scale irrigation and production input subsidies combined (Table 5). This level of funding may reflect the high priority accorded to the FMR Development Program within the DA at that time, or it may reflect an effort to improve the program's alignment with the national government's infrastructure priorities. A three year forward estimation of the budget to support performance-based budgeting is a feature of the National Budget System. The system allows national agencies to better plan and prioritize their investment programs over a three-year period. It appears though that this aspect is yet to be improved by strengthening planning, budgeting, monitoring system within each agency including DA.

Table 5: Shares of the FMR Development Program and other services in the annual DA budget, 2014–21 (PHP millions)

Year	Production services*	Market, extension, and research	Small-scale irrigation	Other**	FMR	FMR as % of DA Budget	Total DA budget
2014	nav	nav	5,654	50,793	12,150	17.7	68,597
2015	6,007	5,211	1,511	29,307	6,400	13.2	48,436
2016	6,835	5,392	1,371	27,315	7,534	15.6	48,447
2017	7,175	7,978	3,339	20,671	6,059	13.4	45,222
2018	9,089	7,532	2,686	24,011	10,018	18.8	53,336
2019	3,972	6,960	2,000	24,053	10,313	21.8	47,298
2020	5,409	5,369	1,185	42,657	10,056	15.6	64,676
2021	14,616	5,436	1,020	38,149	11,818	16.6	71,039

Source: Annual GAA.
Notes: * "Production services" include subsidies for seed, fertilizer, farm implements, and similar items. ** "Other" refers to administrative costs, technical support, and budgets of DA attached agencies.

Performance and Quality of the FMR Development Program

The budget execution performance of the FMR Development Program—and the management of FMR development in general—leaves much to be desired. Budget utilization data show a high percentage of underspending at year end, confirming the slow pace of implementation. A major cause of this low performance appears to be the fragmented approach to managing the development of FMRs. At the DA, this fragmented approach is embedded in an organizational structure that assigns responsibility for managing the FMR Development Program at the regional level to the 14 DA-RFUs, with no oversight to harmonize, standardize, and provide direction for overall planning, budgeting, and monitoring. The annual regional plan and budget prepared by each RFU incorporates the requirements for FMRs based on proposals from LGUs, CSOs, and NGOs. The BAFE PMO ensures that funding proposals are properly screened and validated,[6] but despite its simple, streamlined guidelines and procedures, the validation

[6] Validation is based on Sections 4 and 5 of DA Administrative Order #16 s. 2020.

process is challenging for the regions to implement. The RFUs must contend with time pressures (proposals are usually submitted within three months prior to budget preparation) and shortages of field vehicles and personnel. Proposals that are not validated by the time the budget is submitted must wait another year for funding. After road projects are validated, the appropriated funds are released directly to the DPWH, which takes the projects from procurement to completion and turnover to the LGU.

A comparison of the planned budget for the FMR Development Program and the actual disbursed budget shows huge discrepancies. In 2020, the under-utilization rate (disbursement vs. obligation) was around 58%--in other words, well under half of the initially budgeted amount vis-à-vis what was actually spent (Table 6) .The underutilization rates were at the similar range in 2017 and 2018, and considerably higher in 2019. The DPWH or DA may not be accurately reporting or recording data, or possibly this rate reflects the actual magnitude of underspending. There is anecdotal confirmation that underspending is caused by delays in the release of appropriated funds;[7] administrative delays are possible cause for the 70% under-utilization rate in 2019. Anecdotally, the DBM does not release funds for congressionally approved projects that did not undergo prior evaluation to ensure that they met the eligibility requirements and validation criteria prescribed by the DA. Audit reports[8] also confirm that FMR projects are delayed and unfinished for reasons such as a change in location, failure to obtain legal right of way for the road, unliquidated fund transfers, the inability of LGUs to provide the 10% equity, and other issues related to poor project preparation. A review of the project cycle (See Annex A) reveals the complexity of the entire process meaning that any lapses at any one point of the cycle when left unchecked can lead to failed or uncompleted projects.

Project preparation in particular, is a tedious process requiring special skills and adequate resources, and the absence or lack of it can lead to inefficiencies for both the RAED and the LGUs. There is limited information available to verify the real causes for the low disbursements, but the findings herein suggest some policy and institutional weaknesses in FMR management. Lower disbursements likewise exacerbate the inequities in regional fund allocation contributing to unrealized gains especially for regions with higher poverty incidence.

Table 6: FMR Development Program fund utilization, 2016–2020 (PHP millions)

	2016	2017	2018	2019	2020
Program budget	7,334	6,059	10,018	10,313	10,056
Actual Released Allotment	7,377	6,000	9,952	10,083	4,786
Actual Obligation*	7,055	5,494	9,359	9,438	4,628
Actual Disbursement**	3,175	2,291	4,275	2,808	2,705
-Regional breakdown:					
-Cordillera Administrative Region (CAR)	107	80	111	119	86
-1	284	215	338	353	179
-2	193	305	314	175	192

[7] Based on consultation with DA.

[8] The COA Audit of 2016 reported that around 796 road projects costing PHP1.6 billion were not completed over 2010–16.

-3	251	208	469	255	348
-4A	396	176	439	182	248
-4B	154	185	206	80	111
-5	257	152	363	139	213
-6	198	118	468	146	219
-7	200	99	219	150	177
-8	169	99	140	190	130
-9	146	103	129	185	197
-10	282	131	285	94	186
-11	79	193	413	252	168
-12	317	164	257	409	167
-13	141	63	124	79	83
Underspending /un -utilized (Disbursement vs. Obligation) ***	3,880	3,203	5,084	6,630	1,922
% unutilized	45	58	54	70	58

Source: DA-DPWH Financial Reports (2016-2020)
* Based on actual fund transfer to regions and contracts procured
** Actual contract payments based on progress billings
*** Un-utilized funds revert back to the National Treasury

At the same time, a number of ODA-funded FMR projects implemented under the DA offer a rich set of experiences and best practices for managing and implementing FMR and other infrastructure initiatives in partnership with LGUs. The Philippine Rural Development Project (PRDP) has an FMR and infrastructure component in the amount of PHP 18.5 billion. The project is funded by World Bank loans, counterpart funding from the national government, and a 10–20% equity share from LGUs. The project set the stage for implementing its activities by establishing advisory boards and coordinating units from the central to the regional DA offices, including the provincial and municipal offices, across all 81 provinces. To foster convergence, synergy, and complementarity, the PRDP engages in consultation and dialogue with all national government agencies—the DAR, DPWH, the Department of Trade and Industry (DTI), and others—implementing similar projects. Capacity is developed during project implementation, as the LGUs perform all phases of implementation and enhance their skills with technical support from the project. Aside from being an example of a nationally funded project with LGUs as partner-implementors, the PRDP is an example of comprehensive coordination and monitoring from the top, with feedback mechanisms from the bottom up and control mechanisms to regulate the flow of funds. Monitoring is conducted not only by the DA but by other oversight agencies and the funders. Funds are budgeted at the national level through the DA and channeled down to the LGUs one tranche at a time; each tranche must be disbursed in its entirety before the next can be released. The project has reportedly built or rehabilitated

1,259.54 km of roads (0.7% of the entire local road network) at a total cost of PHP14.1 billion. As of May 2021, an additional 778.23 km are under construction, with a projected cost of PHP11.3 billion.

Box 1: Benefit of FMR under Philippine Rural Development Project (PRDP)

The Philippine Rural Development Project (PRDP) is the Philippine Government's flagship project for agriculture and rural development. The project fosters synergies among National Government Agencies (NGAs), Provincial and Municipal Local Governments, and the private sector to realize investments that promote sustainable and equitable growth in productivity and income of farmers and fisherfolks. Under one of its four components, PRDP provides technical and funding assistance to local government units to support the development and implementation of agriculture-related infrastructure investments. Farm-to-market roads are the most demanded infrastructure investment type in rural communities.

In the recently completed World Bank Interim Implementation Completion and Results Report for PRDP, an Economic and Financial Analysis was conducted to assess the efficiency of completed subprojects for the period 2014-2020. The cost-benefit analysis was undertaken over a 20-year period and it assessed quantifiable benefits at the farm and household levels against actual project disbursements throughout the reference period. PRDP provides small-scale agricultural, livestock and fishery producers with interventions aimed at increasing productivity and incomes by adding value to agri-fishery products, unleashing bottlenecks and capitalizing on opportunities along the value chain. The benefits captured in the analysis for completed FMRs covered (i) savings in vehicle operation costs; (ii) savings in agricultural output hauling costs; (iii) savings in hauling cost of production inputs; (iv) savings in travel time of commuters; (v) benefits from new agricultural areas (production expansion); and (vi) savings in transport losses. From PRDP's experience, the unit costs of constructing new FMRs and rehabilitating existing FMRs were PhP 11.3 million and PhP 11.6 million per kilometer, respectively. The EFA shows that the FMRs' benefits and impacts outweigh the investment costs with Economic Internal Rates of Return (EIRR) of 18.1% for newly constructed FMRs and 18.9% for rehabilitated FMRs, both higher than the prevailing Social Discount Rate (SDR) of 10%. The Net Present Values (NPV), discounted at 10%, are ₱1,941,840 (new FMR) and ₱11,911,605 (rehabilitated FMR), with Benefit Cost Ratios (BCR) of 1.79 and 1.90, respectively. A sensitivity analysis was conducted to simulate the impacts of the project under poorer situations: (i) increased costs, (ii) reduced benefits and (iii) delayed benefits. The analysis shows the investment's robust viability with the EIRR remaining above 10% and the BCR well above 1 under scenarios of up to 30% increase in costs, 20% decrease in benefits and a 2-year delay in benefits.

The regional dimension of FMR financing

The DA purports to allocate FMR Development Program funds across regions based on the incidence of poverty and proximity of key production areas, but the extent to which these criteria are applied in practice is not clear. Under the special legal provisions of the DA budget, the incidence of poverty must be included as a resource allocation criterion, and although this criterion may be integrated in the prioritization of key production areas, current regional allocations do not reflect its inclusion. The DA FMR budget is strongly biased toward selected regions of Luzon (Table 7). Areas of Visayas and Mindanao with notably high poverty rates have received lower budget allocations than Luzon, where the poverty rate is lower. This bias is not surprising, considering that the rice program has traditionally enjoyed the highest priority of all DA banner programs, with the result that the majority of DA resources (including resources for FMRs) have been channeled to support rice production areas, mainly in Luzon. The DA has yet to identify or consolidate key production areas in other regions, but their selection will presumably be based on regional and local development plans, as well as the road network plans of the various LGUs. These local road plans are required under both the LGC and 1997 Modernization Act, but they have taken a long time for the LGUs to complete, allegedly due to lack of funding and expertise.[9]

Table 7: Regional budget appropriations, FMR Development Program (PHP millions)

Region	2019	2020	2021	% poverty incidence
National Capital Region (NCR)	291,000	344,000	-	2.7
Cordillera Administrative Region (CAR)	350,000	334,000	1,140,500	13.1
Ilocos Region 1	803,500	519,000	879,000	11.3
Cagayan Region 2	554,000	555,100	1,165,500	17.9
Central Luzon Region 3	979,000	801,500	882,500	7.8
Calabarzon Region 4-A	786,000	1,408,500	1,152,000	8.0
Mimaropa Region 4-B	270,000	426,500	506,000	16.6
Bicol Region 5	810,000	533,500	737,000	28.6
Total Luzon	**4,843,500**	**4,922,100**	**6,462,500**	
Western Visayas Region 6	902,000	820,500	748,000	17.9
Central Visayas Region 7	773,000	691,771	633,000	19.4
Eastern Visayas Region 8	810,000	646,000	666,000	32.5
Total Visayas	**2,485,000**	**2,158,271**	**2,047,000**	
Zamboanga Region 9	377,000	397,000	581,500	34.8
Northern Mindanao Region 10	535,000	446,600	582,000	24.5
Davao Region 11	719,000	913,000	1,080,000	20.6
Soccsargen Region 12	870,000	513,529	491,500	30.3
Caraga Region 13	378,000	608,000	474,500	32.2
Total Mindanao	**2,879,000**	**2,878,129**	**3,209,500**	
% share	***28.2***	***28.9***	***27.3***	
Total FMR budget*	***10,207,500***	***9,958,500***	***11,719,000***	
Entire Philippines				***16.7***

Note: * Net of Budget for Network Planning and Monitoring.

[9] The national road network plan is being consolidated and according to the DA should be completed before the end of 2021.

Subnational finance and decentralization

The IRA. The IRA is the subnational government's share of national tax revenue and was about 18% of the national budget prior to the Mandanas ruling. The IRA is computed based on the gross national internal revenue of the third fiscal year preceding the current fiscal year. As noted, the projected incremental increase in the IRA arising from the Mandanas ruling is about PHP225.3 billion, or 1.0% of GDP, increasing total IRA by 24% to about PHP1.1 trillion in 2022. Allocation of the total IRA to each LGU follows the formula in the LGC, under which 20% is allocated for capital development projects, 55% for personal services, and the remainder for maintenance and operating expenses. The projected 20% capital investment allocation for 2022 is PHP237.8 billion, representing an increase of 30% over 2021 (PHP182.4 billion).

Vertical and horizontal imbalances exist in the distribution of the IRA. The LGC formula for distributing the IRA causes some LGUs to get more than others, with poorer LGUs getting less (Table 8). Barangays follow a different formula, however. Barangays with a population of at least 100 get a minimum share of PHP80,000, with an additional share from the 60% allocation for population and 40% allocation for equity sharing. The additional equity sharing will amount to PHP2,072 million per barangay, which could double the amount for some heavily populated barangays in the NCR and Calabarzon Regions when the population factor is applied.

The IRA is a block, unconditional grant, spent at the discretion of the local executive and council. The local chief executive, exercising its fiscal autonomy, prepares the budget and funds it from the IRA and locally generated revenues. As mentioned, capital projects are limited to 20% of the budget, but the choice of investments depends upon the priorities of local executives. The choice for instance of a local road project over an FMR project is understandable, given that local roads are intrinsic to the functioning of a locality compared with FMRs, which are generally perceived as "national" projects. To date, very few FMR projects have been included in the formulation and distribution of local budgets. LGUs almost always depend on national funds for FMRs, perhaps knowing that funds are available for this purpose and opting to preserve their scarce local resources to meet other needs. As discussed later, LGUs tend to spend far less on the economic sector, which includes public infrastructure, than other sectors. If responsibility for both budget preparation and FMRs should be devolved to LGUs as a result of the Mandanas ruling, this thinking would need to change.

Table 8: IRA distribution based on formula (PHP, millions)

LGU	Number	% IRA allocation based on formula	IRA share without Mandanas ruling	IRA share with Mandanas ruling	50% population	25% land area	25% equal sharing	Individual share at equal sharing
Province	82	23	201,871	253,690	126,845	63,422	63,423	773
Municipality	1,488	34	298,418	375,020	187,510	93,755	93,755	63
City	146	23	201,871	253,690	126,845	63,422	63,423	434
Barangay	41,931	20	175,540	220,600*	130,347*	0	86,898*	2
	43,647	100	877,700	1,103,000				

Note: *Each barangay gets PHP80,000, plus share from 60% population, plus share from 40% equal sharing. Each province, municipality, and city gets share from 50% population, plus share from 25% land area, plus share from 25% equal sharing.

Dependency on the IRA is high across LGUs. The IRA remains a major source of revenue for LGUs (Table 9), providing 90% of the budget resources for provinces, 70% for cities, and 86% for municipalities. Sources of local revenue are said to be low and declining as a result many LGUs cannot even sustain basic administrative and service delivery functions. Notably, although many national revenue laws are local in nature—especially laws pertaining to agriculture (for example, the Philippine Fisheries Code and National Meat Inspection Code) and the environment—revenue accrues to the national government under an income-sharing scheme. These circumstances point to the conclusion that the national government still retains and controls the bulk of productive revenue sources, despite devolution and the LGC.

Table 9: Sources of revenue for LGU budgets (PHP millions)

	2019	2020	2021
Local taxes	183,455.14	138,618.90	106,608.99
Non-tax revenue	70,260.62	51,490.41	45,915.20
Total revenue from local sources	*253,715.76*	*190,109.31*	*152,524.19*
IRA	575,529.95	648,921.25	695,492.75
Share from PAGCOR/PCSO	745.41	745.41	745.41
Share from national wealth	20,117.63	20,117.63	20,117.63
Total transfer from national government	*596,392.99*	*669,784.29*	*716,355.79*
Total revenue	***850,108.75***	***859,893.60***	***868,879.98***
Local : national government	***30:70***	***29:71***	***21:79***

Even with the incremental increase in IRA and a second wave of devolution on the horizon, LGUs will remain highly dependent on the IRA, owing to the limited options for increasing local revenue. The only major powers of taxation assigned to LGUs are taxes on real property and business licenses (with permissible rates and exemptions prescribed by the LGC), augmented by shares of the dividends from government corporations and national wealth. With limited sources of local revenue and a narrow tax base, dependency on the IRA remains high at all levels: 78.19% in provinces, 42.35% in cities, and 78.21% in municipalities. These dependency rates will increase when the Mandanas ruling becomes effective, unless the formula for allocating the IRA is changed.

Under the current arrangements for devolution, the funds provided by the DA to LGUs for the FMR Development Program amount to PHP9,958.5 billion (15.4% of the DA budget), based on the 2020 General Appropriations Act (GAA). These funds can build around 1,245 km of road, assuming a unit cost of PHP8 million per kilometer of road. The total kilometers may vary, depending on the level of demand, the rate that which road projects are approved, and how well the projects are executed. More kilometers of road could be constructed and rehabilitated if the DA improves the program's performance.

Table 10: LGUs projected to have budget shortfalls that will prevent them from performing devolved functions efficiently

	Number of LGUs	Number of LGUs with shortfalls	LGUs with shortfalls as % of total LGUs
Provinces	81	66	81.5
Cities	145	43	29.7
Municipalities	1489	161	10.8
Total	**1,715**	**270**	**15.7**

Under a devolution scenario in which LGUs are expected to provide an expanded array services, and given the vagaries of the formula for distributing the incremental IRA, a number of LGUs will lack the budgetary resources to deliver devolved services efficiently. A study examining the fiscal sustainability of LGUs in light of the Mandanas ruling and devolution[10] concludes that around 270 (15.7%) would be incapable of meeting the cost of delivering devolved services at the same level of quality as national government agencies (Table 10). The study suggests that disparities and imbalances in LGU budget allocations could be addressed by an equalization fund providing grants to financially distressed LGUs, but cautions that "the fund should not create negative incentives for revenue mobilization neither should they induce inefficient expenditure choices."[11] The concept of an equalization fund is not new to the Philippines. The Grassroots Participatory Fund, mentioned previously, sought to ensure that grassroots constituents would be served by involving CSOs and LGUs, but the fund simply provided additional resources to LGUs and CSOs until it was removed from the budget in 2017. The proposed equalization fund would need to learn from experience with this fund if it is actually to benefit LGUs.

The same study casts doubt on whether barangays could successfully assume devolved responsibilities for FMR projects even with the expected windfall in resources. Barangays may still not be in a position to carry out an infrastructure project because of the cost (although community labor could be engaged to reduce labor costs) and the limited personnel and skills available to barangays. The barangay government consists only of eight officials, plus a treasurer and secretary. Guidelines for the FMR Development Program issued in 2016 by the DA (Administrative Order 04 2016) indicated that construction of new barangay roads would be undertaken with the higher-level LGU as the administrative partner.

Concerns that the budget transfer may be insufficient to cover the administrative and associated costs of FMR projects, including the expertise to implement them, could well increase the reluctance of local authorities to view FMRs as priorities. Unlike the devolution in 1991—in which around 15,000 DA personnel were transferred to the LGUs of their choice–the impending devolution may not involve similar provisions. The LGUs may need to assume the costs of engaging additional staff to perform the additional

[10] The study examines the effects on services in general and not specifically on FMRs. See Manasan, Rosario (2020), "Fiscal Sustainability, Equity, and Allocative Efficiency in the Light of the 2019 Supreme Court Ruling on the LGUs Share in National Taxes." Philippine Institute of Development Studies (PIDS) Discussion Paper 2020-18. Quezon City. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2018.pdf.

[11] Rosario (2020), quoting Martinez-Vazquez, Jorge, and Jameson Boex (undated), "The Design of Equalization Grants: Theory and Applications." Module 1. World Bank Institute, Washington, DC.

tasks. The 2013 Mechanization Act requires the agriculture and engineering divisions/sections of agricultural offices at the provincial, city, and municipality levels to serve as the planning, coordinating, regulating, and implementing bodies for infrastructure projects, but the extent to which they comply with this requirement is unknown. Currently the DWPH district engineering group assists LGUs with these functions for FMR projects. A new regulation—"Implementing Guidelines on the Strengthening and Establishment of the Agricultural and Biosystems Engineering Groups of the Local Government Units" (Joint Memorandum Circular No. 2, 24 June 2020)—mandates the establishment of Agricultural and Biosystems Engineering units in all LGUs. These units would be responsible for functions associated with FMR projects, among others, but it is unclear how this will work in practice.

Concerns that FMRs will not be seen as a priority are reinforced by LGU spending patterns. Social and general services top LGU spending, with spending on economic services (which include FMRs) trailing far behind (Table 11). General services include administrative costs, and LGUs are allowed to use up to 55% of the IRA allocation to cover salaries, wages, and other costs associated with personal services. Finally, because LGU personnel are local residents who are familiar with many in their community, they have an incentive to provide social services to local residents as efficiently as possible. This tendency emerges clearly in volatile situations like the COVID-19 pandemic. The local authorities have played a frontline role in delivering social support throughout the pandemic. The magnitude of this role is evident in the shift in spending from general to social services starting in 2020 and accelerating into 2021 and 2022.

Table 11: Local government spending priorities by service sector, 2019–21 (PHP millions)

Sector	2019	2020	2021	Total	% share
General services	262,103	288,313	317,145	867,561	33.0
Economic services	77,631	82,289	87,226	247,146	9.4
Social services	133,038	634,593	685,360	1,452,991	55.3
Debt servicing	19,407	19,795	20,191	59,393	2.3
Total	**492,179**	**1,024,990**	**1,109,922**	**2,627,091**	

Regulations for allocating the IRA also influence the priority that local budgets give to the different service sectors. By permitting LGUs to allocate up to 55% of the IRA to personal services (the cap for the national government is 30%), the regulations encourage LGUs to hire the maximum number of people to deliver those services. Capital investments are capped at 20%, and the remaining 25% is used for operating expenses. This framework provides considerable opportunity for political patronage to prosper, which works to the advantage of local executives who want to win votes and remain in power. On the other hand, national government controls on the use of the 20% capital development fund reduces the priority and restricts the choice of capital development projects.

Local capacity to support effective investment programs in a context of devolution

The capacity of local governments to undertake devolved projects is an enduring concern. The LGC provides for national government agencies to carry out devolved functions when the LGU concerned lacks the capacity to perform them. A number of functions devolved in 1991 were unofficially resumed by the national government, primarily to support LGUs with weak capacity and avoid disruptions in services. This move was supplemented by capacity-building programs initiated by the oversight agencies and integrated into ODA-funded projects engaging the LGUs as partners. As mentioned, one such program, the PRDP, had great success in building the capacity of LGUs to implement FMR and other infrastructure projects.

If local authorities are to deploy their scarce resources effectively to meet an array of investment needs, support for capacity building must continue. This PER could not carry out an in-depth evaluation of current LGU capacity, but anecdotal evidence suggests that there is a major gap in capacity to carry out high-quality ex ante project appraisal (with benefit-cost analysis), monitoring, and ex post impact evaluation. Effective investment programs need to be underpinned by the ability to: (i) select projects with high benefit-cost ratios, (ii) monitor ongoing projects to make mid-course corrections, and (iii) see what has worked and what has not by evaluating impacts of completed projects. If this gap remains, it will have a big impact on the ability of LGUs to make the best use of resources if responsibility for FMR investment projects is devolved to them.

Various approaches and tools have been developed to build capacity and incentives for LGUs to perform more effectively, and some may prove useful in the current context. The Performance Challenge Fund (PCF) of the DILG is an incentive program that awards grants for local development projects to local governments. LGUs become eligible for a PCF grant when they improve their capacity for good governance (transparency, accountability, participation, and service delivery) and qualify for the Seal of Good Local Governance. Grants have been awarded to about 78.6% of municipalities that qualified at least once over the course of 10 years (mostly 1st-to 4th class municipalities). The LGUs have claimed that the PCF grants helped them to implement priority projects and acquire skills along the way. Another good practice example for building capacity in LGUs while providing incentives for them to carry out necessary functions is the Conditional Matching Grant to Provinces (CMGP) for Road Repair, Rehabilitation, and Improvement Program (Box 1). This program was designed to overcome the tendency to under-invest in road maintenance and repair after new roads are built, and it has been effective. Both the PCF and CMGP models could be adapted to enhance the performance of LGUs in building and maintaining FMRs if more responsibility for performing these functions is devolved to them.

Box 2: CMGP for Road Repair, Rehabilitation, and Improvement Program

Only 14% of the roads in the Philippines are part of the national road network; the remaining 86%, re local roads. Provincial roads constitute 17% (31,688 km) of local roads; of these, 30% (about 9,506 km) are considered core provincial roads that link most of the population to basic services and facilities and areas of economic activity. In 2016, 77% of core provincial roads were rated as being in poor to bad condition. Their poor condition stems from the pervasive lack of resources in LGUs, which assumed responsibility for local road management after this function was devolved from the national government in 1991. With little or no national government support for roads, LGUs tend to prioritize critical road repairs, construction, and improvement at the expense of maintenance.

In 2016, the DILG started KALSADA—Concrete and Well-Maintained Road toward Inclusive Development (*Konkreto at Ayos na Lansangan ang Daan Tungo sa Pangkalahatang Kaunlaran*)—a national performance-based program to improve the quality of provincial roads and encourage provincial governments to maintain them. Based on experience with the Provincial Roads Management Facility (PRMF), supported by the Government of Australia, the KALSADA Program had a single component: concreting unpaved provincial roads. The conditions for funding (established by the DILG) required provincial governments to adopt improved governance measures, such as the Local Road Management Performance Assessment and the Public Financial Management Assessment. In 2017, the KALSADA Program was succeeded by the CMGP for Road Repair, Rehabilitation, and Improvement Program. The CMGP has two components: (i) repair, rehabilitation, and improvement of provincial roads, including repair of bridge/s within the station limits of the project, and (ii) support for provinces to achieve governance reform targets and develop the capacity for overall program management and monitoring, and for quality assurance of road projects. These components ensure that provincial governments meet the most critical requirements for road services. The second component in particular will help improve the planning, preparation, and implementation of road projects, ensure that they improve connectivity in rural areas, and enable LGUs to comply with the grant conditionalities set by the DILG. CPMG envisions that all core provincial roads will be upgraded to good-to-fair condition by 2023 and maintained through continuous financial and institutional support to the Provincial Governments. By the end of 2020, about 2,669 km of core provincial roads (around 28% of the total) in 72 provinces had been improved since KALSADA started in 2016.

With KALSADA/CMGP, the national government is in a strategic position to influence road management at the Provincial LGU level by incentivizing appropriate use of LGU resources. Allocating LGU funds with priority for road maintenance will be a key step for LGUs to adopt sustainable road management practices.

Source of basic data: https://www.cmgpprogram.com/ accessed May 9, 2021; Guidelines for the Implementation of the Conditional Matching Grant to Provinces for Road Repair, Rehabilitation and Improvement (CMGP)for FY 2017 and Thereafter (http://region12.dilg.gov.ph/sites/default/files/issuances/DILG-DBM-JMC2017-02.pdf).

3 Conclusions and Recommendations

Conclusions and Recommendations

Getting the biggest "bang per buck" from public expenditures involves the implementation of best practice policies in many dimensions. This is a challenge under any circumstances, and the challenge is amplified by the devolution process itself and some special characteristics of the FMR investment program. While this PER was carried out in the context of the prospect of further devolution of budget and responsibilities in response to the Mandanas ruling, many of its findings and recommendations would be relevant even in the absence of Mandanas. Based on the findings above, as well as the experience of other countries in dealing with decentralization and public expenditure on rural roads, this review offers two sets of conclusions and recommendations. The first set deals mainly with the process of devolving budget and activities to the LGUs. The second set deals with more general issues in public expenditure on FMRs, but many of these issues will become even more important in a more decentralized system.

Issues Specific to Devolution

Devolution is the transfer of resources, power, and authority from the national government to LGUs. With devolution the national government loses full control of both the devolved activities and the corresponding funding. The power and authority devolved to the LGUs in the past has been assumed to automatically build the local capacities for self-government that will allow LGUs to take charge of their development into self-reliant communities. This did not happen in the devolution of 1991, however. Some LGUs matured fast, but others have not. Fiscal capacity has deteriorated and dependency on the IRA has risen further. The impending devolution in 2022 will have to deal with the same local issues.

As fully recognized by the DA, the overarching issue for the government to consider in regard to the devolution is to determine which functions/activities would: (i) be fully devolved to the LGUs (and which level of LGU); (ii) remain with the DA, and (iii) be shared between the DA and LGUs. The DA has adopted a sensible approach based on the principles that: (i) services with little or no benefit spillover are best administered and financed by lower levels of government (for example, machinery distribution at the municipal level); (ii) provision of public goods and services that involve economies of scale is best assigned to progressively higher levels of government (for example, provincial, regional); while (iii) the DA shall set national policy, development strategies, and service delivery standards, and assess and assist the LGUs.

While the principles are reasonable, operationalizing them may not be so clear-cut. With respect to FMRs, for example, the benefits may appear to be primarily local, yet there are actually significant positive spillovers from having a coherent, integrated road network throughout the country. Given the diverse and growing needs of their respective constituents and the 20% cap on capital investments, there is much uncertainty as to how the LGUs will prioritize FMR funding within the long list of competing investment options at the local level. To the extent that local decisions to forego spending on FMR construction and maintenance reduce connectivity, not only will local benefits be foregone, but the benefits of a national road network will be unrealized. According to this line of thinking, there is a good argument for having the DA play a bigger role in this area than in some other functions that may be devolved, at least in the planning and monitoring activities.

Devolving FMR functions may prove to be extra challenging, because each political unit within the diverse group of political units managing FMR projects will have to deal with its own particular issues. There are issues at both levels, but at this point the local issues seem to outweigh the national ones, until perhaps a major initiative like amending the LGC is advanced.

Given these considerations, one good option moving forward may be for a number of the FMR-related functions of the DA-BAFE and the Regional Agricultural Engineering Division (RAED) of the RFUs to be retained. The coordination and monitoring functions of BAFE pertaining to standards and enforcement of agriculture and fisheries policies and other related concerns would be among these, with RAED serving as the link between the DA and the agriculture and engineering groups at the local levels. In this way, the RAED can ensure that communication and coordination with the LGUs on national policies, standards, and related concerns are served. As discussed further below, it may also make sense to retain at the national level functions that require a critical mass of specially trained, skilled staff, including for project appraisal, monitoring, and impact evaluation. These functions would also include continued development of the Agricultural and Biosystems Engineering Management Information System (ABEMIS) to capture both physical and financial data at the local level to help evidence -based decision making at the top.

Furthermore, efforts at the national level to complete an inventory of existing roads (including FMRs) and to develop a nation-wide master plan for new investments (again, including FMRs) deserve high priority. An accurate inventory and overall master plan will be essential tools for decision making at both national and local levels to avoid fragmentation of the network. They will make all of the options described below more effective. This will provide a clearer picture of the nationwide gaps and highlight the priority areas for investment. It will be a useful tool to incentivize progress while reducing inclusion errors in the FMRDP portfolio and improving project accountability through transparency. A plan will also help to mitigate some of the political economy problems that have afflicted the FMR program. For example, it will impose at least some constraints on tendencies for decisions on investment priorities to be guided more by political patronage than by objective measures of costs and benefits to society. BAFE has been making progress in this direction, and its efforts should be reinforced.

The capacity-building initiatives for the LGUs have to continue. The guidelines, manuals, and guidebooks developed must be simplified, updated, and disseminated to a wider number of LGUs, especially those belonging to the lower classes of government and those which received but could not retain expertise due to frequent staff turnover, especially when there is a change in administration. The use and application of diagnostic tools to complement the capacity-building program must continue. The Public Financial Management (PFM) Assessment Tool (PFMAT) meant to measure PFM capacities and systems and the Seal of Good Local Governance meant to incentivize LGUs are perfect combinations.

In addition, the central government may want to consider mechanisms to influence investment priorities. Options for such a mechanism include:

- <u>An enhanced menu system.</u> The menu is a list of investment programs in which the LGUs may participate using the 20% budget on capital outlays. This is the current policy for using the capital budget but reported underspending may indicate that the menu system has not been effective in providing appropriate options. The list may be expanded to include diverse investments on devolved services for wider selection by the LGUs. It should be noted that the Department of Budget and Management, DILG, and Department of Finance have issued Joint Memorandum Circular No. 2020-1 dated November 4, 2020 to provide greater leeway and flexibility for LGUs in choosing the programs or projects that they want to fund out of their respective 20% DFs, and to enable them to better address the constantly evolving development needs of their respective constituents. It is still too soon to see how effective this will be, but it seems to be a step in the right direction. It will be useful to review this after a budget cycle to see if it does indeed provide sufficient flexibility, or whether further steps are needed.

➢ An Equalization Fund (EF). The fund suggested in the Mandanas study is a grant meant to provide support specifically to LGUs that cannot adequately finance the devolved functions. The fund may take the form of a conditional grant that can provide a mechanism to influence and direct capital investment priorities. It is here that the menu system can be more effective by listing and even giving priority to investments with spillover effects outside the LGU jurisdictions, like FMRs and road repair and maintenance. Routine, periodic road maintenance is currently the full responsibility of the LGUs, but it appears that they may require additional incentives to carry out this responsibility, considering that many local roads in the villages around the country are notably deteriorating due to the lack of periodic maintenance. Maintenance preserves assets and their benefits, so it should be emphasized (Box 2). One option for such a grant program is simply to make FMRs eligible under the CMGP for Road Repair, Rehabilitation, and Improvement Program described earlier in Box 1, which apparently does not currently cover FMRs.

➢ A government lending program with a mechanism for IRA deductions for interest payment and amortization[12]. The objective of the program would be to provide an alternative source of financing for LGUs that wish to undertake additional projects from a menu of devolved projects and related investments to qualify for the lending program. This form of lending can be regulated and easily controlled by the national government. Subnational governments are allowed to borrow from the domestic financial market, but this form of lending is more challenging for the national government because it has to provide loan guarantees, raising the likelihood that some LGUs will over-borrow and some will need bailouts if they fail to fulfill their financial obligations. While the LGC provides for automatic release of IRA, the mechanism suggested herein ensures loan repayment and interest based on mutually agreed upon deductions from the individual IRA share of the LGU concerned which may be covered by the loan agreement signed between and among the LGU concerned, the national government lending institution and / or agencies involved in the release and distribution of the IRA to all LGUs.

More General Issues in FMR Planning, Budgeting, and Implementation Uncovered in This Review

Level of spending, planned and executed: Is spending adequate to meet the objectives? On one level at least, the answer with respect to the FMR Development Program seems to be "clearly not." The DA's strategy—as well as overall government strategy, exemplified in the "Build, Build, Build" motto—both emphasize that rural roads are a high-priority investment area. While the DA's *budgeted* expenditure on FMRs has been a rather high share of its overall budget since 2018, the *actual* expenditures have lagged significantly, due (apparently) to failure to execute the allocated budget. Reported "under-utilization" stood at 70 percent in 2019 (that is, only 30% of the budgeted allocation was actually spent) and 58

[12] It would need to be checked how such a mechanism should be designed in order to be compliant with the legal requirements for IRA release as specified in the Local Government Code of 1991.

percent in 2020. This phenomenon may have multiple causes, including under-reporting of actual spending or true failure to spend the allocated funds. Audits suggest that where funds are not used, this failure has been due to multiple problems, including poor project selection, lack of prioritization, poor choice of location, and failure of the LGUs to provide counterpart funding, inter alia. (This review did not have time or information to draw more than this impressionistic conclusion.) As more responsibility is shifted to LGUs, these problems are likely to be exacerbated. Given the (very reasonable) general policy of the government to reduce budgets of programs that are not being executed well, this apparent under-utilization may result in a falling allocation to FMR investments. To bring actual spending on FMRs more into line with actual policy, the government should give high priority to an in-depth diagnostic to better understand the causes of the reported under-utilization of funds and how to resolve this issue.

One concrete suggestion is to continue PFM reforms that will integrate planning, investment programming , budgeting ,monitoring and evaluation , cash management, accounting and auditing systems to provide the environment for transparency, funding predictability, accountability , efficiency and results orientation of DA operations in general. Strengthening of the PFM system addresses many of the issues uncovered in the current report and may provide the opportunity for formulating a medium-term investment program (MTIP) for DA services including devolved activities. The MTIP could provide a rich source of projects for local investments and could provide a platform for crosschecking and prioritizing projects identified by the LGUs and other stakeholders.

Composition of spending: Is there an appropriate balance? While “balance” among spending priorities can have many dimensions, one of the single biggest issues with infrastructure investments is always new capital investments versus operations and maintenance (O&M), with O&M generally getting the “short end of the stick.” International experience indicates that the underlying causes may be partly political (politicians get more credit for opening a new road or dam than for voting for adequate maintenance budget year in and year out) and partly institutional (some countries have one agency in charge of capital investments in roads and another with responsibility for O&M, creating a lack of coordination). (See the discussion of Vietnam’s experience in Box 2). With decentralization in the Philippines, the policy seems to be fairly clearly defined that the LGUs assume responsibility for O&M once the project is complete, and they are obliged to make a commitment to adequate O&M budget before the original construction is begun. However, it does not appear that there is a good system in place for monitoring and enforcing compliance with this commitment. In the near future (before devolution of budget), the government needs to put in place a mechanism to: (i) systematically monitor each LGU’s spending on O&M; (ii) evaluate whether that is adequate to maintain the FMR in good condition; and (iii) sanction LGUs that fall out of compliance.

Box 3: Imbalances between spending on capital and O&M can greatly reduce the benefits of roads: The case of Vietnam

In principle, responsibility for FMR upkeep in the Philippines is supposed to be assumed by the relevant LGUs after construction is completed. It was not possible as part of this FMR PER to systematically collect data on spending on FMR maintenance. Anecdotal evidence suggests, however, that this spending category is often under-funded. This is also true in many other countries. Vietnam offers a cautionary tale in this regard.

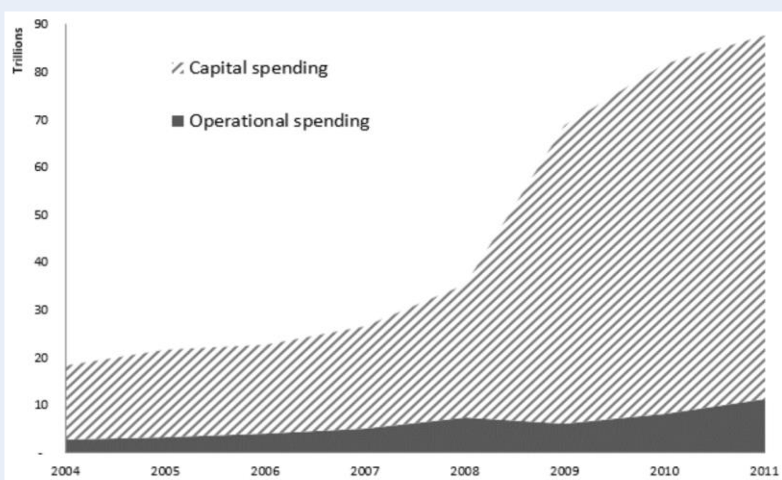
The average ratio of maintenance to overall road expenditure was about 30% in 2011 in member countries of the Organization for Economic Co-operation and Development, 37% in Indonesia in 2009, and 35% in Malaysia in 2013, while it was only 10% in Vietnam in 2012, according to a PER carried out in that country. While the actual maintenance budget covers only about 50% of the estimated needs, the gap is further exacerbated by a 68% increase of the already high overall maintenance costs per kilometer between 2009 and 2013. Even worse, the imbalance has been growing quickly over time (see figure).

The World Bank estimates that, in general, repair costs rise to 6 times the cost of maintenance after 3 years of neglect and to 18 times after 5 years of neglect. Maintenance costs money, but in pure economic terms it is money well spent. When using economic models emphasizing the savings in transport costs, experience shows that the maintenance of rural roads often provides an economic rate of return in the range of 30–40%.

Under-funding of maintenance constitutes a major issue with regard to the long-term preservation of road assets. As roads are among the most important public assets, it is vital to maintain them over the long run. Road improvements bring immediate benefits to road users through improved access to hospitals, schools, and markets; improved comfort, speed, and safety; and lower vehicle operating costs. For these benefits to be sustained, road improvements have to be followed by a well-planned and financed program of maintenance. Routine maintenance, which is less costly on a per-kilometer basis, helps lower the cyclical cost of periodic maintenance and therefore reduces the overall cost of maintenance over the life of the road. Without regular maintenance, roads can rapidly fall into disrepair, preventing realization of the longer-term benefits of road improvements on development.

As devolution proceeds in the Philippines, it will be critically important to put in place mechanisms to monitor spending and ensure that LGUs comply with their commitments to adequately maintain their local roads.

Vietnam: Both central and local expenditures favor capital investment spending, 2004–11 (VN dong, trillions)



Source: Transport PER, World Bank

Budget planning: Is a process in place to ensure coordination among relevant agencies and stakeholders? Both BAFE and this PER have identified this issue as an important one in the Philippines,[13] given the duplication or overlapping of responsibilities for FMR among DOT, DTI, Department of National Defense, DILG, and DAR. Since any of several agencies can in principle approve funding for FMRs, LGUs sometimes practice an FMR "proposal shopping strategy." In addition, evaluations of FMR proposals need to take into account other infrastructure investments, since the biggest bang for buck in FMRs may be in areas where other (non-FMR) investments are planned (for example, "corridors" or irrigation projects). For those reasons, it will be important either to consolidate responsibilities in a single agency or to establish a mechanism to seamlessly coordinate budget planning among all relevant agencies and programs. In particular, this mechanism should ensure that the provincial roads implemented by the Department of the Interior and Local Government (DILG) and other national government agencies are not the same FMRs being proposed by the local government units (LGUs) for funding by the Department of Agriculture (DA). An inventory of local roads – and eventually a national master plan for rural roads -- will help in ensuring that there will be no double funding of road projects being proposed by the LGUs for funding by the national agencies.

Budget efficiency: Is the budget allocated to projects with the highest returns and which meet other prioritization criteria? Given limited resources, funds are not available to cover all potential projects. It will be important to ensure that an effective mechanism is in place to prioritize projects that have the highest potential returns, both economic and social. It was not clear from this review that economic benefit-cost analysis is systematically used in FMR investment decision making. And while the evidence is sparse, it seems to indicate that priority in funding FMRs has been given to regions of the country with lower poverty rates, suggesting that social criteria are also not being systematically applied. BAFE has identified a number of problems that suggest that current project selection is not underpinned by evidence-based analysis. These include the segmented nature of construction; non-connectivity to production area and markets; and "politicized" identification, prioritization, programming, and allocation of funds. This review also identified cases where road funding for a local area was spent on small non-economic projects in order to spread benefits widely among constituents and maximize political gains, rather than economic benefits. This kind of practice can at least be minimized by institutionalization of evidence-based analysis in project selection. BAFE has adopted prioritization criteria and is developing tools to quantitatively estimate economic benefits and to monitor the status of FMR projects using spatial analysis, including the ABEMIS and IROAD platforms. This will feed into the development of the national FMR Network Plan. What is not clear is how this effort will be impacted by devolution. There is a tension between (i) the decentralization of decision making as to which projects to fund, which will lead to an obvious bias of local decision makers toward approval of local projects, versus (ii) the need to ensure that national funds are invested in projects with the highest returns from a national perspective. It is not clear what kind of institutional arrangements will be best to adjudicate these kinds of trade-offs. But it is clear that the decisions need to be based on the best possible evidence on the impacts of investments. An example of how this may be applied in practice is the use of ex post impact evaluation to feed into ex ante project evaluation in Brazil (Box 3). For this reason, it is important for the government to support continued development of ABEMIS and other tools of economic analysis, as well as tools to enable ex ante analysis of social and environmental impacts of FMR projects. Investments need to be based on these

[13] BAFE presentation, "Farm-to-Market Road Network Plan," March 13, 2021.

tools regardless of the institutional decision-making arrangements that are established in the devolution process.

Box 4: Using an evidence-based "rule of thumb" for evaluating FMR project proposals in Brazil's State of Tocantins

In principle, all proposed FMR projects (and other projects as well) should be subjected to an evidence-based benefit-cost analysis as an integral step in the approval process. In practice, however, resource constraints may make it infeasible to carry out such an analysis for each individual project. In that case, it may be useful to have some kind of "rule of thumb" to inform the decision. This option may make sense where the proposed FMR projects are reasonably homogeneous in relevant characteristics, such as construction costs per kilometer and in the features of the farms they will service.

One interesting example of how this concept was applied is the rural road investments in the State of Tocantins in Brazil, as reported in the Transport PER. An evidence-based analysis estimated that with access to a rural road, household monthly income increased by US$40–$70 on average. At a US$40 increase per household and month, under a conservative approach and reasonable economic assumptions (including road construction costs), the relationship can be estimated between internal rate of return (IRR) of the project and number of households served. Using a threshold IRR of 12%, it turns out that the project will pass the test for approval if it services more than 80 households.

Monitoring and evaluation (M&E): Are procedures in place to make use of M&E at all stages of budget process? M&E is important for:

- Budget planning and project selection. To maximize overall benefits of the public expenditure budget, projects need to be based on real analysis of their likely benefits and cost – economic, social, and environmental. Cost-benefit analysis needs to be based on what is known from past projects in the Philippines, as well as experiences in other countries.
- Project execution. Progress needs to be monitored, and the monitoring system should include feedback mechanisms to make course corrections. Particularly in infrastructure projects, monitoring must include good oversight of procurement to ensure a competitive process and minimize opportunities for corruption.
- Evaluating impact and providing feedback after projects are complete. A mechanism needs to be in place for ex post evaluation and to learn lessons, which then can feed back into planning and project selection and design.

There currently is a poor and incomplete registry of completed, ongoing, and validated FMRs (according to BAFE). Monitoring of the impact of benefits from already constructed FMR projects is also poor. The experience of other countries has confirmed the value of surveys in carrying out evaluations of projects. The government should give high priority to upgrading the M&E process for FMR investments. This includes the completion and continued maintenance and upgrading of the ABEMIS, as well as the inclusion of some workable system for receiving real-time feedback from LGUs on ongoing projects and survey-based ex post analysis of selected major projects. The government may also want to consider institutionalizing and expanding some mechanism of citizen participation in the budgeting and program monitoring process to ensure transparency and accountability. Box 4 describes some options for doing this, based on global experience.

Box 5: Ensuring participation, transparency, and accountability in public expenditure in a decentralized budgeting environment

According to the International Budget Project, which covers 100 countries, the Philippines at the national level compares very well to many other nations in transparency and citizen participation in budget processes. For example, it scores 71 compared to scores of 20 for Indonesia, 13 for Thailand, 17 for Malaysia, 11 for Vietnam, 6 for Cambodia, and an average of 14 globally. As the Philippines moves forward with more decentralization and devolution, the challenge will be to ensure that this remains true at the level of the LGUs. In addition to good public financial management tools, there are a number of approaches that have been used to increase social accountability in the budgeting process at the local level.

Public hearings on budgets. In Porto Alegre, Brazil, for example, a number of public assemblies are convened at the beginning of each budget cycle, in which residents discuss how the available budget should be spent. They then select representatives for each neighborhood to review priorities for the district, and this information then feeds into municipal decision making as it reconciles demands from across the metropolis.

Civic monitoring of inter-governmental fiscal transfers. In Ghana, a number of CSOs led by the Integrated Social Development Centre conducted a study ("Tracking the Disbursement of the District Assemblies Common Fund") to increase public participation in the management of funds and in monitoring and evaluating how those resources were spent.

Social audit. A "social audit" is a process and tool for measuring, understanding, reporting, and ultimately improving local government performance. The objectives are to:

- Assess physical and financial gaps between needs and resources available for local development.
- Create awareness among beneficiaries and providers of social and productive services at the local level.
- Increase the effectiveness of local development programs.
- Scrutinize local policy choices in light of various stakeholders' interests, particularly the rural poor; and
- Estimate opportunity costs of failure of stakeholders to get timely access to services.

As participants in a social audit, local stakeholder "auditors" are trained to scrutinize, understand, and interpret records pertaining to particular programs being "audited." The government must agree to allow them access to the relevant documents and other information and evidence. They then verify evidence on the ground and provide qualitative and quantitative feedback, sharing their findings in a public forum. There is a public hearing to read out the conclusions and record decisions. The reports are uploaded on a designated website. It is then the government's responsibility to initiate corrective action as required. Finally, an Action Taken Report (ATR) is produced and uploaded.

This kind of social audit has been undertaken in a number of localities in India.

Source: "Subnational Institutional Framework for Effective and Efficient Public Service Delivery", presentation by Serdar Yilmaz, World Bank Governance Group; and "Social Audits: Tool for improved outcomes in public programs", presentation by Sowmya Kidambi, Director of Society for Social Audit, Accountability & Transparency (SSAAT), Department of Rural Development, Government of Telangana, India.

References

Agriculture and Fishery Mechanization Law, Republic Act 10601, 05 June 2013

Bonoan, Maria Belen, Two Decades of Journey to Local Autonomy, The Asia Foundation, 01 September 2010

Commission on Audit (COA), Citizens Participatory Audit Report, March 2016

COA Audit Reports, 2013, 2017

Department of Agriculture (DA), Revised General Guidelines on the Implementation of the DA Farm-to-Market Roads Development Program (FMRDP), DA Administrative Order # 16 Series 2020

DA Annual Accomplishments Report, 2013, 2014, 2015, 2016

DA, Implementing Rules and Regulations Pursuant to RA 8435 known as the "Agriculture and Fisheries Modernization Act of 1997, DA Administrative Order #6 Series 1978

General guidelines, FMR, DA-AO #04 Series 2016

DA-DPWH, Roles and Responsibilities of DA and DPWH in FMRDP, Joint DA -DPWH Memo Circular # 5 series 2020

Department of the Interior and Local Government (DILG), Impacts of the Supreme Court Ruling on the Mandanas -Garcia Cases, Power Point Presentation, Director Analiza Bonagua, Bureau of the Bureau of Local Government Development, DILG, March 2, 2021 Presented during the Meeting of the House of representatives Committee on Mindanao Affairs

DILG, Preliminary Transition Initiatives for the Implementation of the Supreme Court Ruling on the Mandanas-Garcia Petition, Powerpoint Presentation, Alfonso A. Maralli, Jr., Bureau of Local Government Development, DILG, 28 February 2020

Department of Budget and Management (DBM), Budget of Expenditures and Sources of Financing -Years 2014-2021

DBM, Updated Guidelines on the Appropriations and Utilization of the 20% of the Annual Internal Revenue Allotment (IRA) for Development Projects, Department of Interior and Local Government - Department of Budget and Management (DILG-DBM) Joint Memorandum Circular #2017-1 issued February 7,2017.

DBM, National Budget Call for Budget Year 2022, DBM National Memorandum # 138 Issued 06 January 2021

General Appropriations Act (GAA), 2016, 2017,2018,2019 2020,2021

National Economic and Development Authority (NEDA), 2013 Comprehensive and Integrated Infrastructure Program.

NEDA, Philippine Development Plan 2017-2022, AMBISYON 2040

Performance Challenge Fund Accomplishment Report 2020

Philippine Institute of Development Studies (PIDS), Fiscal Sustainability, Equity & Allocative Efficiency in the Light of the 2019 Supreme Court Ruling on the LGUs Share in National Taxes, Rosario Manasan, Discussion Paper Series 2020-18, June 2020

Tabunda, Manuel S. and Primer, Mario Galang on the Local Government Code of 1991, Republic Act 7160, 1991

ANNEX

FMR INSTITUTIONAL FRAMEWORK (Based on AO 16series 2020 and updated by author to capture DPWH role and national budget process)

PROJECT PREPARATION STAGE

1. Regional Offices (15 in all) through the Regional Agriculture and Engineering Division (RAED)calls upon LGUs for submission of project proposals.
2. LGUs identifies project in coordination with RAED, conducts feasibility study and submits to RAED at least three (3) months prior to national budget preparation (Note: Includes proposals from CSOs, NGOs and Congress but not clear if these proposals undergo through the same process and documentation required of the LGUs. It is not also clear whether the process of validation is fully adhered to due to unavailability of information at the local level)
3. RO-RAED screens[14] project proposals for eligibility requirements

and if found that all documents for eligibility are complete, proceeds to validation following prescribed DA criteria based on AO #16 s. 2020[15] and after validation register to FMR Registry or database (ABEMIS)

REVIEW AND APPROVAL: List of of validated, eligible and with complete documentation requirements shall be prioritized ; FMR Evaluation Proposal Reports prepared and certified by RAED for endorsement to FMR-PMO (RAED harmonizes validated proposal , endorsed by congressional district and LGUs and submit to Secretary for approval)

BUDGET PREPARATION STAGE

4. RO-RAED after validating that project is feasible, consolidates all project proposals validated and submits to regional budget division for integration in the regional budget proposal for submission to central office-Financial and Management Service (FMS) budget division through the FMR-PMO.
5. CO-FMS consolidates all regional FMR budgets and integrates with total DA budget proposal and submits to Department of Budget and Management (DBM)
6. DBM evaluates and recommends national government agency budget level (DA included) for approval by the President and submission to Congress.

BUDGET LEGISLATION

7. Congress deliberates on the national budget where reallocation is allowed (from one project to another, one budget item to another, one agency to another, one department to another) provided total size of the budget remains unchanged.
8. Congress reenacts on third reading the national budget into law (General Appropriations Act) for

---

[14] Sec.4 : letter of Intent endorsed by LGU; Local Road Network Map; Prioritization profile; certification from LGU Planning Development Office that proposed FMR included is included in Local Development Investment Plan or Provincial Commodity Investment Plan

[15]Section 5: Validation Criteria : FMR serves Road Influence Area ;Part of connected road network system that provides vital access to and from existing or potential key production area; linked to all-weather road of equal or higher quality; minimum length of 1 km.for both both flat and rolling terrain ;proposal should be one continuous road; has minimum perpendicular distance of 1 km to another concreted road or scheduled road for construction; within SAFDZ;benefit beneficiaries; no environmental impact; included in FMR Network plan, regional development plan submitted by LGU through RAED to avoid overlapping and duplication

signing by the President who may veto in part or in full the national budget.Congress approval and signing is usually targeted at the onset of the budget year to avoid disruption on government services.

BUDGET EXECUTION STAGE

9. DBM calls upon national government agencies including DA to prepare Work and Financial Plan based on the General Appropriations Act (GAA)
10. DA (all national agencies) central and regional offices prepare Work and Financial Plan (WFP) as required indicating changes done by congress. Budget items and changes that require further evaluation, validation, clearance from appropriate authorities will be labeled for later release while others will be included in the comprehensive release.
11. DBM upon receipt of the WFP reviews and issues authority for release for items under comprehensive release and withhold amounts under later release.
12. In the case of FMR, the DBM releases the authority to the DPWH (instead of DA).
13. DA provides the DPWH with the list of projects covered by the DBM authority
14. DPWH central office upon receipt of the list of projects transfer the funds to the different DPWH District Engineering Offices (DEOs)
15. DEOs upon receipt of the funds conduct detailed engineering and related activities and proceeds to procurement
16. DEOs conduct procurement in coordination with RAED and LGU concerned. And issues Notice to proceed to winning bidder which starts project construction
17. DEOs together with the LGU concerned supervises and monitors progress of construction and submits reports to RAED.
18. DEOs after completion of project proceeds to turnover of completed road to LGU.