



HOW TO MOBILIZE PUBLIC RESOURCES TO SUPPORT POVERTY REDUCTION

Shenggen Fan, Anuja Saurkar, and Ghada Shields

While the role of public investment in promoting economic growth and poverty reduction is widely recognized, it is not clear how governments can mobilize these resources and use them efficiently and effectively. Exploring these issues in the context of agricultural and rural development and poverty reduction, this brief looks at current trends in public expenditures, strategies to raise public funding, and prospective reforms to increase public spending efficiency.

Government Spending in Developing Countries

Over the past two decades, 44 developing countries reported overall growth in total government expenditures in real terms (measured in 2000 international dollars). Expenditures increased from US\$981 billion in 1980 to US\$1,562 billion in 1990, an annual growth rate of 4.8 percent. In the 1990s, government spending power increased by 7 percent per year. By 2000, total government expenditures rose to \$2,969 billion, reaching \$3,988 billion by 2004, an annual growth rate of 7 percent between 2000 and 2004. Growth in government expenditures in developing countries has clearly accelerated.

Total government expenditures as a percentage of gross domestic product (GDP) measures the amount a country spends relative to the size of its economy. For countries in this study, the percentage increased from 20 percent in 1980 to 22 percent in 2004. On average, developing countries spend much less than developed countries. For example, total government outlays as a percentage of GDP in the countries of the Organisation for Economic Co-operation and Development (OECD) ranged from 27 percent in 1960 to 48 percent in 1996, compared with 13–35 percent in most developing countries.

Among the three regions, Sub-Saharan Africa spent the most as a percentage of GDP—roughly 28 percent over the past two decades, 7 percentage points higher than Asia and Latin America. For Asian developing countries, the percentage increased from 19 percent in 1980 to 21 percent in 2004. Latin America experienced no discernible spending pattern.

Equally important is the composition of government expenditures, which reflects government spending priorities (Table 1). The top three expenditures for Sub-Saharan Africa in 2004 were education, health, and defense. That Africa and Latin America spend so little on transportation and communications is discouraging: the share gradually declined in Africa from 11 percent in 1980 to 6 percent in 2004. The decline was even sharper in Latin America, from 7 percent in 1980 to 2 percent in 2004.

Agriculture is the largest sector in many developing countries in terms of shares of GDP and employment. The majority of the world's poor live in rural areas and depend on agriculture for their livelihoods. Therefore, expenditure on public goods is one of the most important government instruments for promoting economic growth and alleviating poverty in rural areas of developing countries. Agricultural expenditures increased at an annual growth rate of 3.4 percent between 1980 and 2004 (Table 2). During the same period, the rural population grew by approximately 1 percent per year and agricultural GDP by 4.2 percent. That is, agricultural expenditures per capita of rural population increased slightly, and expenditures per unit of agricultural GDP decreased.

In Sub-Saharan Africa, government expenditures on agriculture increased gradually at an annual rate of 3.6 percent. Agricultural expenditures in Asia more than doubled between 1980 and 2004 at an annual growth rate of 4.5 percent, the highest growth among the three regions. Latin America was the only region that reduced its spending in agriculture, with an annual reduction of 1 percent. Seven of the 16 Latin American countries included in the dataset reduced their government expenditures in agriculture.

Agricultural expenditures as a share of total government spending indicate the level of priority a country gives its agricultural sector. For all regions, the shares declined between 1980 and 2004: in Latin America the share declined from 8 to 2.5 percent, in Asia it declined from 15 to 7.4 percent, and in Africa it declined from 7 to 5.3 percent. Africa's rate is well below the 10 percent target established by the Comprehensive African Agricultural Development Program.

Agricultural expenditures as a percentage of agricultural GDP measure government spending on agriculture relative to the size of the sector. Agricultural spending as a percentage of agricultural GDP is extremely low in developing countries (less than 10 percent on average) compared with developed countries (more than 20 percent on average). Asia remained relatively constant at 10–11 percent. Africa spent only half as much as Asia during 1980–2004 (4–6 percent) and only one-third as much as Asia spent during the Green Revolution period. For Latin America, agricultural spending as a percentage of agricultural GDP decreased from 15 percent in 1980 to 8 percent in 2004.

Table 1—Percentage Composition of Total Expenditure, 1980–2004

Sector	Sub-Saharan Africa				Asia				Latin America			
	1980	1990	2000	2004	1980	1990	2000	2004	1980	1990	2000	2004
Agriculture ^a	7.00	5.48	3.57	5.31	14.93	12.34	7.43	7.41	8.04	2.09	2.51	2.48
Education	14.41	14.46	14.11	15.53	13.83	17.41	14.20	11.58	10.36	7.94	14.79	14.19
Health	4.85	4.45	6.67	7.12	5.31	4.29	4.37	3.58	5.85	6.09	7.55	8.00
Transport and Communi- cations	11.00	4.49	4.66	5.83	11.71	5.21	3.80	3.97	6.78	2.65	2.56	2.29
Social Security	2.86	2.51	4.95	2.76	1.89	2.43	3.14	3.08	23.65	21.81	36.38	35.81
Defense	19.72	17.06	8.84	6.72	17.58	12.86	8.43	8.19	6.08	4.98	4.60	3.87
Other ^b	40.15	51.54	57.20	56.71	34.75	45.45	58.63	62.19	39.23	54.44	31.62	33.37
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Sources: Calculated by authors using data from International Monetary Fund's Government Finance Statistics Yearbook (various issues).

Notes: The countries were selected largely based on data availability; they include Botswana, Burkina Faso, Cameroon, Côte D'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Malawi, Mali, Morocco, Nigeria, Togo, Tunisia, Uganda, Zambia, Zimbabwe, Bangladesh, China, India, Indonesia, Korea, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Uruguay, and Venezuela. In 2004, these countries accounted for more than 80 percent of both total GDP and agricultural GDP in developing countries.

^aIncludes agriculture, forestry, fishing, and hunting.

^bIncludes fuel and energy; mining, manufacturing, and construction; and general administration.

Table 2—Agriculture Expenditures, 1980–2004

Region	Billion 2000 international dollars				Percentage of agricultural GDP			
	1980	1990	2000	2004	1980	1990	2000	2004
Sub- Saharan Africa	2.97	3.64	4.01	6.91	4.05	3.73	3.47	5.78
Asia	71.14	103.00	147.90	206.60	9.57	8.63	9.13	10.93
Latin America and the Caribbean	31.47	12.19	18.93	23.65	14.72	5.77	9.12	8.24
Total	109.94	123.03	177.14	244.48	10.37	7.93	8.85	10.35

Source: Calculated by authors using data from International Monetary Fund's Government Finance Statistics Yearbook (various issues).

Mobilizing Resources to Support Poverty Reduction Efforts

Finance for public spending has a number of sources. The different financing mechanisms have important implications not only for efficiency, but also for poverty reduction and distributional outcome. The financing options include *domestic* sources, such as savings, tax revenues (from income, corporate, value-added taxes, and so on), and domestic nontax revenues (such as user fees), and *foreign sources*, such as foreign direct investment (FDI), borrowing, debt relief, and foreign aid (such as official development assistance, or ODA).

The most effective way to boost a country's resource mobilization effort is to improve its tax system. Tax revenue in ratio to GDP is only 18 percent in developing countries, while it is 38 percent for industrial countries. An efficient tax system will finance the necessary level of public spending in the most efficient and equitable way. It increases revenues by eliminating exemptions, deductions, and loopholes and by effectively enforcing the tax laws. However, in most developing countries, it is a challenge to establish such a system due to the predominant agrarian structure of the economy (largely informal) and the limited capacity of the tax administration. Traditionally, tax reforms emphasize

indirect taxes such as the value-added tax, rather than the more progressive direct taxes on income or wealth that would generate higher tax revenue. Evidence also shows that taxes on agriculture should be minimized or even eliminated, particularly in largely agrarian economies, so the poor—who mostly derive their livelihoods from agriculture—will not be adversely affected. No single taxing system is best: each system has to be designed to fit the country's economic, social, legal, and cultural context. Recent tax reform in Ghana introduced a system increasing the direct income tax, reducing the indirect tax, and decreasing reliance on import and export duties, which has increased total tax revenues and made taxes more amenable to the poor.

Subnational entities also raise revenues by levying taxes on personal income and corporate profits, as well as on customs and excise duties, nonagricultural wealth, and interstate trade. The management of these revenue streams is often divided between the central government and its state and municipal counterparts. Decentralization of government powers has been shown to improve revenues because local authorities have better and more detailed knowledge of local conditions. However, in this sharing mechanism, there should be an incentive structure for the subnational entities to raise more revenues by receiving a certain percentage for local public provision and administration. For example, in China, subnational entities have an incentive to raise more taxes because if they increase revenues, they get a larger share of the pie.

Domestic nontax revenues, such as user fees, are another source of public revenue, although user fees in some sectors can have a negative effect on the poor. For example, introducing user fees in the health sector can reduce public subsidies, resulting in more inequity in access to health services and in health outcomes. The same applies to education, where fees for books or uniforms may deter the very poor from sending their children to school. However, for public utilities such as electricity and irrigation, where

nonpoor households benefit more from access, a user fee is more efficient and equitable.

Foreign aid, such as ODI, can boost public investment programs, but cannot replace domestic resource mobilization in the long run. Debt relief is another way of boosting expenditures of poor countries by diverting expenditures from debt payments toward sectors such as infrastructure, health, and education. But foreign aid and expenditures from debt relief have to be used carefully. First, the allocation of aid among different sectors has to be aligned with national development priorities. Strong programming strategies have to be developed in accordance with a country's socioeconomic and political dimensions for foreign aid programs to be successful in reaching the goal of reducing poverty and hunger. Careful analyses must be conducted to provide evidence-based knowledge and information for policymakers and political institutions to determine what allocations to make. Second, too much foreign aid can lead to other dangers. Scarce local human resources can be used up quickly servicing multiple development programs that simply serve individual donor interests. As a result, fewer people are employed in productive activities. Moreover, the danger always exists that governments will spend more time being accountable to donors than to their own people, thus spending less money and time addressing the needs of the rural poor. Finally, when policy design, analysis, and management skills are inadequate, development activities will continue to demand a high price tag, as countries resort to hiring expensive foreign expatriates or consultants to do the job. Many donors have moved their aid from project/program support to budget support. This is a good way to ensure that donor support will align with the priorities of the national development strategies. Again, national capacity in setting spending priorities is crucial to improving the effectiveness of budget support. Donors may need to earmark special funds to build up the long-term capacity for formulating and implementing national development strategies and public spending programs.

Public-private partnership is another critical instrument for mobilizing private investment to promote economic growth and poverty reduction. The public sector is the dominant supplier of health, education, infrastructure, and technology services in many developing countries. Inefficiencies are widespread and arise from endemic problems with poor staff incentives and a lack of financial autonomy, accountability, and transparency. Privatization can be an effective way to improve efficiency. Private firms have a stronger incentive to build and run infrastructure industries in cost-effective ways and to be more responsive to end-user needs, as long as privatization goes hand in hand with the development of market institutions and contracting mechanisms that exert competitive pressure on the private firms. The extent to which such institutions can be put in

place will also vary with the types of services and infrastructure to be provided: for example, the ability to recover costs differs by the type of service or infrastructure. Privatization also encourages and facilitates the imposition of cost-covering tariffs or user fees, thus addressing the problems of underpricing that have afflicted many publicly provided infrastructure services. Greater efficiency and cost recovery allow firms to make investments and provide services that might not otherwise have been possible. They simultaneously improve efficiency and the government's fiscal condition by making available the same quality and quantity of service with smaller budgetary subsidies. But privatization is not a panacea. Policymakers should consider both efficiency and equity implications when deciding what and how to privatize.

How to Improve Public Spending Efficiency

Public expenditures, regardless of their benefits and distribution, impose a cost on society, diverting resources from private use and resulting in deadweight losses associated with distortional taxation (that is, the "marginal cost of public funds"). For example, one study estimated that each unit of public expenditure raised in Africa had, on average, a social cost of \$1.17. If the social return of a project is smaller than the marginal cost of public funds, it is not worth investing in that project.

Efficiency of public spending is defined as achieving the maximal outcome given the same unit of spending. It can be further disaggregated into allocative efficiency and technical efficiency. Allocative efficiency reaches a maximum when the spending outcome is maximized by reallocating public spending among different sectors or functions. To do this, information is needed on the relative returns to different expenditures. In assessing their effects, two issues are particularly worth noting. First, it is critical to assess the impact of spending through all channels. For example, investment in rural infrastructure may affect agricultural productivity, rural nonfarm sectors, rural-urban migration, and food prices, and all of those, in turn, will contribute to overall economic growth, poverty reduction, and income distribution among different population groups. Second, more spending items should be included and assessed jointly, so their returns can be compared and their complementarities and interactions can be considered.

To improve allocative efficiency, public spending needs to be reallocated from low- to high-return sectors and regions (see the Fan, Brzeska, and Shields brief in this series). To improve technical efficiency of public spending, the efficacy of spending in sectors where returns are low needs to be improved by reforming public institutions and governance. Simply increasing the amount of resource flows into poor sectors is insufficient without adequate checks and balances to ensure that resources and investments are being made effectively. In other words, are governance structures and institutions sufficient to

ensure that the planning, implementation, and monitoring of development processes is transparent and that policymakers are highly accountable? Since good governance also means having in place institutional incentives for private-sector growth, are there well-established and transparent "rules of the game" to encourage economic activities with domestic, regional, and international markets? Uganda, for example, has reduced poverty and hunger rates rapidly over the past decade, thanks to an improved governance and policy environment, improved bureaucratic and management structures, greater transparency in decisionmaking, and overall a conducive environment for private-sector growth. The quality of governance structures and existing institutions in each country will determine how well policies and development strategies will ultimately reduce poverty. For example, the service delivery mechanisms may work far more efficiently at a decentralized level and through traditional institutions. However, centralized systems will be more cost effective and efficient for the delivery of large public works such as roads, electricity, and irrigation.

Social security expenditures are important to the development process, particularly in protecting the welfare of the most disadvantaged and vulnerable groups. This type of spending can also help achieve long-term growth and poverty reduction by improving the productivity of the poor. There are synergies between social protection and pro-poor agricultural growth.

Another important reform that can increase the public resources available to invest in more productive sectors is to reduce government subsidies on inputs and output. In India, initial subsidies on credit, fertilizer, and irrigation helped farmers, especially smallholders, to adopt new technologies. Small farms are often losers in the initial adoption stage of a new technology because the increased supply of agricultural products from large farms benefiting from the new technologies pushes prices down. These

initial subsidies helped small farmers to access the new technologies and therefore also gain in this initial stage. Eventually, however, these subsidies will yield low marginal returns in both agricultural growth and poverty reduction, despite their large impact in earlier decades. To sustain long-term growth in agricultural production and therefore achieve a long-term solution to poverty, government should cut subsidies and increase investments in agricultural research and development, rural infrastructure, and education.

The Way Forward

Many developing countries have committed to poverty reduction by developing national strategies and by committing financial resources to these efforts. How can governments mobilize these resources and use them efficiently and effectively? First, developing countries need to increase their tax revenues by reforming their tax systems, so the dependence on foreign aid can be reduced. A simple, transparent, and direct taxing system is often more efficient and equitable than a more complex, indirect system. Second, the government should cut subsidies on inputs and output and increase investments in agricultural research and development, rural infrastructure, and education. Third, reforms in institutions and governance related to public spending are urgently needed. A decentralized, participatory, and evidence-driven governance structure is necessary for efficient and pro-poor government spending.

For Further Reading: S. Fan, ed., *Public Expenditures, Growth, and Poverty: Lessons from Developing Countries* (Baltimore: Johns Hopkins University Press, 2007); S. Fan, A. Gulati, and S. Thorat, *Investment, Subsidies, and Pro-Poor Growth in Rural India* Discussion Paper No. 716 (Washington, DC: International Food Policy Research Institute, 2007); E. Walters and M. Aurio, "The Marginal Cost of Public Funds in Africa" (Washington, DC: World Bank, 2005); X. Zhang, S. Fan, L. Zhang, and J. Huang, "Local Governance and Public Goods Provision in Rural China," *Journal of Public Economics* (Vol. 88, No. 12, 2004).

Shenggen Fan (s.fan@cgiar.org), **Anuja Saurkar** (a.saurkar@cgiar.org), and **Ghada Shields** (g.shields@cgiar.org) are division director, research analyst, and consultant, respectively, in the Development Strategy and Governance Division of the International Food Policy Research Institute.

Suggested citation: Shenggen Fan, Anuja Saurkar, and Ghada Shields. 2007. How to Mobilize Public Resources to Support Poverty Reduction. 2020 Focus Brief on the World's Poor and Hungry People. Washington, DC: IFPRI.

The views expressed in this brief are those of the author(s) and are not necessarily endorsed by or representative of IFPRI, or of the cosponsoring or supporting organizations.

This brief was prepared for a policy consultation process coordinated by IFPRI and focused on the World's Poor and Hungry People. IFPRI gratefully acknowledges the contributions of: Asian Development Bank (ADB), Bill and Melinda Gates Foundation, Canadian International Development Agency (CIDA), Deutsche Welthungerhilfe (German Agro Action), European Commission, German Federal Ministry for Economic Co-operation and Development, with Deutsche Gesellschaft für Technische Zusammenarbeit (BMZ/GTZ), International Development Research Center (IDRC) Canada, and Irish Aid.



INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

2033 K Street, NW, Washington, DC 20006-1002 USA

T: +1 202 862 5600 • F: +1 202 467 4439
ifpri@cgiar.org • www.ifpri.org



FOR FOOD, AGRICULTURE, AND THE ENVIRONMENT

Copyright © 2007 International Food Policy Research Institute. All rights reserved. Sections of this material may be reproduced for nonprofit use without written permission but with acknowledgment to IFPRI. For further information: ifpri-copyright@cgiar.org.