



# Estimating financing needs for local services in Madagascar

*As more countries decentralize public services, there is a growing need to assess local service needs and available financing. A study in Madagascar offers a methodology for conducting such assessments, which should be complemented by tools that measure the efficiency and quality of public spending.*

This note presents the methodology and findings of a field study on the financing needs of Madagascar's *communes*—the country's lowest but most institutionally advanced level of sub-national government. Following a first round of municipal elections in 1995, more than 1,500 communes are now formally responsible for maintaining basic administrative services and social and economic infrastructure, including local waste disposal and sanitation. In addition, communes are responsible for identifying and coordinating local investments and for supporting implementation of the national Poverty Reduction Strategy at the local level.

To finance these activities, communes receive population-based transfers and small conditional transfers, and can collect revenue from property, market, and consumption taxes as well as user charges. Yet little is known about how much these fiscal assignments satisfy local needs. As part of its policy dialogue with the government of Madagascar, the World Bank is engaged in extensive research that includes geographic mapping of social spending and a review of opportunities and obstacles to fiscal and sectoral decentralization. This research generated the following analysis of local and cross-sectoral service needs and available financing.

## The approach

Local financing gap analysis offers a rapid assessment of local service needs and available financing by comparing estimates of local

financing needs with available resource flows within a given year. This tool is not designed to measure leakage in resource flows, which is analyzed through public expenditure tracking surveys for health and education. The approach has three steps:

- *Estimating unmet needs for basic local services*, defined as the difference between a pre-defined benchmark for service delivery and existing local service capacity.
- *Identifying available financing to support local service delivery*, including from local governments, centralized and deconcentrated service providers, donors, nongovernmental organizations (NGOs), and communities.
- *Estimating the financing gap* by deducting available financing from estimated needs.

In Madagascar the health, education, and water (including sanitation) sectors were analyzed because of their large shares of commune financing, low externalities beyond local boundaries, and importance as priorities in the national Poverty Reduction Strategy. Because local financing gap analysis requires intensive empirical field work, the study was applied to a sample of just 15 communes. The communes were evenly distributed across six provinces and regions, but differed in size and socioeconomic characteristics.

## Estimating local service needs

Local needs are estimated based on the difference between a hypothetical benchmark of appropriate service delivery and existing

Local financing gap analysis offers a rapid assessment of local service needs and available financing

**TABLE 1 TYPES AND SOURCES OF FINANCING FOR BASIC SERVICES IN COMMUNES IN MADAGASCAR, 2000**

(U.S. dollars per capita)

<i>Sector</i>	<i>Type of financing</i>	<i>Line ministries</i>	<i>Donor projects</i>	<i>District committees</i>	<i>Local governments</i>	<i>Community groups</i>
Education	Recurrent	1.31 (1.16 for salaries)	0.00	0.00	0.10	0.12
	Capital	0.05	0.68	0.13	0.00	0.06
Health	Recurrent	0.40 (0.30 for salaries)	0.02	0.00	0.01	0.21
	Capital	0.03	0.47	0.02	0.00	0.11
Water	Recurrent	n.a.	0.00	0.00	0.00	0.03
	Capital	n.a.	4.83	0.00	0.00	0.14

Source: World Bank staff estimates based on commune finance study.

service capacity, as measured by available infrastructure, equipment, and staff levels. For this study the level of appropriate service delivery was based on a conservative service benchmark in order to avoid unrealistically high estimates of local financing gaps. This measure was based on technical standards for infrastructure, equipment, and staff coverage obtained from line ministries or donor projects.

For education these standards were applied to the number of children enrolled in primary schools. (Although a calculation based on the total school-age population would have been desirable, it could not be performed due to unreliable demographic data.) For health and water the standards were used to calculate the costs of a functioning health facility at the commune level and a collective potable water system at the village level (excluding individual household connections).

### Analyzing available resources

Efforts to analyze available resources should include all resources that reach communes, including from the center, intermediate service providers, and external and local sources. In Madagascar four sources of local financing were reviewed: commune budgets, central government and deconcentrated service providers, contributions by beneficiaries and community groups, and projects, investments, and other contributions by donors and NGOs.

Despite the small sample, the results for commune budget data proved robust relative to a sample of 320 communes for

which budget data were available from central sources. Financing through central ministries and community groups is likely to vary across communes—though much less than donor financing, which tends to be concentrated in select communes.

Overall, available resources are modest. In 2000 average capital (investment) spending for education and health was less than \$1 per capita (table 1). Recurrent education spending was higher, but most was committed to teacher salaries and cannot be reallocated to other needs. Meanwhile, nonsalary recurrent spending for education and health was only about \$0.35 per capita. Resources for water and sanitation in the sampled communes were significantly higher, at almost \$5 per capita. But these data reflect above-average donor investments in three of the sampled communes and so likely overstate the true resources available across communes.

The importance of different financing sources varies significantly for capital and recurrent spending, as well as among central and deconcentrated and local sources of financing (see table 1). In all three sectors, donor investments were the most important source of capital financing—ranging from \$0.47 per capita in health to \$4.83 in water. The next largest resource category was recurrent spending by line ministries, which was \$1.31 per capita for education and \$0.40 for health.

Contributions from community groups were higher than expected in all three sectors. Health care user fees and cost recovery schemes generated \$0.21 per capita, accounting for almost one-third of all recurrent

spending. Moreover, communities often contributed to salary expenditures—especially in education, where many teachers are directly employed by local parent-teacher associations.

Communities also provided the second largest share of capital financing (except for education, where special investment funds administered by district-level assembly delegates provide significant contributions). Although all these community inputs tend to be small in absolute terms, they typically represent an important subsidiary source of financing—especially in the water sector, where recurrent spending is financed almost entirely through user fees and water sales.

The study confirmed that service delivery by local governments is hampered by weak administrative capacity and unproductive local revenue arrangements. For example, most taxes are collected by deconcentrated agents, not communes. Only in education do communes finance a noteworthy share (9 percent) of recurrent spending. Still, communes provide important administrative and organizational functions—such as monitoring land and population registries, local development planning, and management of local security—that affect public service delivery.

## Calculating the financing gap

The local financing gap is calculated by subtracting available financing from estimated service needs. An important distinction must be made between existing, committed funds (such as fixed spending on salaries) and fungible funds (such as capital and recurrent, nonsalary spending) that might be reallocated to unmet service needs. This study assumed that existing funds represent available assets that enter only indirectly into the needs estimate, while fungible funds help close the gap. At the same time, fixed spending on salaries was considered part of existing funds because it already contributed to existing levels of service delivery. Capital and recurrent, nonsalary spending were assumed to be fungible allocations that could be used to address unmet service needs.

The analysis confirms existing evidence on uneven service performance in key social

sectors. Access rates for infrastructure are particularly low in education. Even a conservative estimate, based on minimum infrastructure requirements and covering only children already in school, points to significant capital investment needs for rehabilitation and construction in this sector (\$15.0 per capita; table 2). Water needs are also considerable (\$13.8 per capita). In health, where the service network is better developed, investment needs are lower at \$4.6 per capita. Financing needs for recurrent spending in education and health are comparatively manageable and more evenly distributed (about \$2.5 per capita).

Existing financing generally compares poorly with these needs. Some 85–95 percent of local needs for health and education go unmet—particularly in education, where the financing gap is estimated to be \$16.2 per capita. The gap for water services is much smaller, but only because of large donor investments in a few of the sampled communes. And absolute financing needs in water are still substantial, at \$8.8 per capita (see table 2).

Extrapolated to the national level, this snapshot of local finance indicates that Madagascar’s rural communes would have required \$320 million in resource transfers to attain appropriate service levels in 2000—equal to 40 percent of the country’s current budget resources and 40 times current block transfers to these communes. Moreover, this estimate is conservative because it covers only minimum sector norms and does not include

Existing financing falls far short of service needs

**TABLE 2 NEEDS AND GAPS IN FINANCING FOR BASIC SERVICES IN COMMUNES IN MADAGASCAR, 2000**

(U.S. dollars per capita)

<i>Sector</i>	<i>Type of financing</i>	<i>Needs</i>	<i>Existing financing</i>	<i>Financing gap</i>
Education	Total	17.5	1.3	16.2
	Capital	15.0	0.9	14.1
	Recurrent	2.5	0.4	2.1
Health	Total	6.9	0.8	6.1
	Capital	4.6	0.6	4.0
	Recurrent	2.5	0.3	2.1
Water	Total	13.8	5.0	8.8

Source: World Bank staff estimates based on commune finance study.

Reforms could strengthen the capacity of local governments to finance and deliver local services

other important priorities (such as security and transport) and because education coverage had been limited.

### Conclusion

The story of underfinancing of basic local services in low-income countries has been told many times before. But this study has tried to add a cross-sectoral and local perspective on service needs and financing gaps that can be summarized in three main conclusions:

- *Even though the gaps presented here are conservative estimates, they are extremely large.* Still, from a macroeconomic perspective \$320 million in additional financing would be manageable if Madagascar increased its revenue efforts from the current low 11 percent of GDP to about 15 percent—the average for low-income countries—and if the investment needs identified here were stretched over several years.
- *Institutional reforms and decentralization of decisionmaking in the public sector can directly affect local service provision.* Public spending in Madagascar is heavily centralized. Thus reallocating resources within the existing budget framework to deconcentrated line agencies and to local facilities could significantly enhance the financing available for local services. Moreover, much could be done to increase the efficiency of resource use. This issue will be addressed

by two expenditure tracking surveys and reforms of financial management procedures under a World Bank public sector reform project.

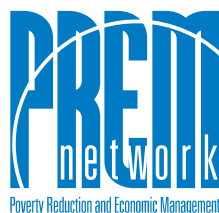
- *Despite decentralization of fiscal and political autonomy, communes lack sufficient financial capacity to support local service delivery.* Although communes perform important functions, they have limited capacity to finance local services provision. Donors, central ministries, deconcentrated line agencies, and even community groups contribute noticeably more to the financing of local services. Other reforms—including strengthening local revenue collection, increasing transfers, and streamlining the control framework—could strengthen the capacity of local governments to finance and deliver local services.

### Further reading

World Bank. 2003. “Decentralization in Madagascar.” Report 25793-MAG. Washington, D.C.

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