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AN ECONOMIC COST-BENEFIT ANALYSIS OF THE
LOCAL DEVELOPMENT ASSISTANCE PROGRAM

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PREFACE

This report on A Cost-Benefit Analysis of the Local Development Assistance Program represents the culmination of our efforts to quantify and value the benefits and costs attendant to a program of policy reforms toward decentralization and local autonomy for the Philippines. The study was commissioned by USAID/Philippines to provide the Mission with a cost-benefit analysis of the Local Assistance Development Program and a proposal for tracking the economic impact of the Program through an indicators system which would include both primary and secondary data gathering.

The Scope of Work called for the development of an economic framework for decentralization, including the concept of economic efficiency; specifications of economic benefits and costs; and the application of the framework and methodology to the Philippine scenario, using primary and secondary data gathered in the course of the field research. The study also identified an indicators-based system for assessing the economic impact of the Program consistent with the cost-benefit analysis, with suggestions on the appropriate methodology and target benchmarks for the proposed indicators.

In the implementation of our research design, we visited two (Laguna and Davao) of the five pilot provinces chosen by the Cabinet Action Committee on Decentralization and interviewed the provincial officials. We also paid visits to the provincial offices of different national government agencies (the Department of Public Works and Highways and the Department of Agriculture in Laguna, and the Department of Local Government in Davao). The information gathered from the visits to the two provinces provided us with the micro-level data we used in estimating unit benefits with the Program.

We also interviewed Undersecretaries Ramon Katigbak of the Department of Finance, Benjamin Diokno of the Department of the Budget and Management, and Ricardo Umali of the Department of the Environment and Natural Resources. The interview with Undersecretary Katigbak was particularly insightful.

Secondary data were gathered from the Bureau of Local Government Finance of the Department of Finance on Consolidated Budget Operations of local governments at the provincial and regional levels, and from the Department of Public Works and Highways on its cost guidelines ("Unit Price Ceilings of Civil Works Pay Items," dated May 1989, and "Unit Costs of Infrastructures" as of July 1989). We also examined feasibility studies for different project categories (roads, schoolbuildings, public markets, etc.) submitted by LGUs to the Economic Support Fund Secretariat and PREMIUMED, two national agencies that fund local infrastructure projects, to get indications of unit costing.

The study has benefited much from discussions with Dr. Paul R. Deuster, the Mission's Program Economist, and with Ms. Ma. Luisa Panlilio and Mr. Leonardo Dayao. Comments from other USAID Mission officials during the briefings and on earlier drafts of the report were also very helpful.

I. EXECUTIVE SUMMARY

A. Introduction

This study presents indicative estimates of the economic benefits and costs of a decentralization program that would involve the following major immediate policy reforms: (a) the regionalization of the infrastructure budget; (b) increased internal revenue allocations to the local governments and provision of fiscal incentives for increased local resource mobilization; and (c) the devolution of some functions of national government agencies to the local governments, with the corresponding transfer of control over budgets and personnel. The study also proposes an evaluation design for assessing the economic impact of the program, with a set of suggested indicators and the corresponding benchmarks for interpreting movements in their values; certain methodological issues are also discussed.

B. The Economic Cost-Benefit Analysis

The sources of benefits identified in the discussion of the framework stem from the expected increase in economic efficiency that decentralization and local autonomy would bring about. As the budget for infrastructure is regionalized, decision-making with respect to projects of a certain maximum size would be left to the LGUs; this is expected to generate savings in construction costs and reduced implementation delays. The new NIRA bill is expected to bring in new money to the regions, out of which the LGUs would be able to expand their operations in the provision of basic public services and the construction and maintenance of local infrastructures. The devolution of some of the functions of national government agencies to the LGUs, as expressed in the proposed Local Government Code, would lead to a better targeting of beneficiaries.

The main basis for estimating the flow of funds to the LGUs that would come with the policy reform program used in this study is the April 1989 Memorandum from the Office of the Cabinet Secretary. For the cost-benefit analysis, the estimates contained in the Memorandum of the funds diversion with the devolution of certain line agency functions to the LGUs were lowered to take into account the provision that some "mandatory" programs of the national agencies would remain.

With respect to the regionalization of the infrastructure fund, for 1990, the first year of program implementation, there would be a transfer of control over P3,505 million worth of infrastructure funds to the municipalities and provinces outside NCR (case A), or P7,668 million including the regional development councils (case B), away from the national government. If even only half of these funds would be subject to as little as 10% gain in efficiency due to cost savings, the first-year efficiency benefits would be P175.25 million (case A) to P383.4 million (case B).

Similarly, if half the projects covered by the transferred funds would avoid costly delays, and if the delayed projects shall have had as much as 65% initial commitment of funds, the gain in net present value (at a 15% discount rate) with the avoidance of delays could amount to as much as P9,900 for every

P100,000 worth of initial investment, assuming a one-year normal gestation period and a 20-year operating life for the average project. In the aggregate, the benefits would range from P173.50 million (case A) to P379.57 million (case B).

The NIRA would bring in new money, of which some 40% would likely be spent on general public services (general government and social development) and some 35% would be spent on local infrastructure, the rest going to other current expenditures and capital outlay. With the amount spent on general public services, we could conservatively follow the approach in national income accounting of valuing such services at cost, in which case the benefits would just cover the costs. For the expected incremental spending on infrastructure of 35% of the P5,605 million (or P1,961.75 million), the projects could easily yield an IRR of 20% on the average, even if the LGUs do not engage in formal cost-benefit analysis, given the thrust towards cost-saving and better targeting of beneficiaries. At this IRR and at a 15% social discount rate, a short-lived project with, say, a one-year gestation period and a steady stream of benefits over a five-year operating life would yield an NPV equal to 12% of the initial investment. For the amount going to new infrastructure projects, therefore, the NPV would reach P235.41 million.

Finally, the devolution of line agency powers to the LGUs would conservatively involve the transfer to local (non-NCR) control of P4,607 million (or 20% of P23,035 million) worth of national government funds. If the local governments could reach even just 5% more beneficiaries than the national government agencies, this would effectively mean about a 5% cost-saving on the transferred funds per year, or P230.35 million.

Thus, even with highly conservative assumptions on the flow of benefits with decentralization, the monetized valuation of economic efficiency gains could range from P814.51 million to P1,245.32 million just on the first year (Table 10). These benefits even exclude the direct private sector gains with increased efficiency in the conduct of regular administrative and regulatory functions that would be devolved to the LGUs. These benefits are likely not just to be sustained but even to grow over time, as LGUs gain more experience in project development and general administration, and as the national government releases more and more control over national programs to them.

Decentralization and local autonomy will of course entail some initial and recurrent costs. Undersecretary Katigbak of the Department of Finance envisions the need for "a Central Support Staff for a national-level inter-agency group that will formulate the implementing rules and supervise the implementation among the local government units" and estimates an annual budget of P6.61 million for the two years of life of this organization.

Of a bigger magnitude would be the incremental outlays for local-level capability building in such aspects as financial management and capital budgeting as well as project planning and implementation. For the Philippines with its 73 provinces, 1,531 municipalities, and 60 chartered cities, the training needs may seem enormous at first glance. However, training programs for local executives have been conducted extensively since the 1970s (such as under the USAID-funded Provincial Development Assistance Program), and it is reassuring to note that many participants in these programs still work with the local government units.

Given the huge amount of potential economic benefits that could be realized with decentralization and local autonomy, any estimate of the direct costs of the program would be dwarfed by comparison. Suppose that the training cost were P20,000 per participant (including the opportunity cost of time spent in training). If the 1,665 local government units (provinces, municipalities, and cities) should send 10 participants each, the total cost under these generous assumptions would amount to only P333 million, or 40% of the low estimate of first-year benefits expected with the program. As argued above, however, training needs are not likely to reach this magnitude.

Certain risks that are difficult to quantify are of course expected to come with a decentralization program. However, with the countervailing forces present in a democratic society that help to reduce these risks, the "drag" on the economy is not likely to erode the efficiency gains significantly. Given the magnitude of the benefits expected with the program, even if the efficiency gains were to decline by 20% because of such factors, the implementation of the policy reform measures would still be worthwhile from the economy's viewpoint.

It would also be instructive to check on the minimum level of benefits (and the corresponding funds flows to the regions) needed for the program to "break even," if one were to view program assistance as essentially "buying" into a policy reform package. Assuming that the \$50 million would come in two annual tranches of equal amounts, at an official exchange rate of P22.50/\$1, a shadow exchange rate of 1.2 times the official rate, and a 15% social opportunity cost of capital, the flow of benefits needed over a five-year "operating life" of the program would be P327.36 million per year, beginning in 1990, while the equivalent annual flow of the local costs of program support (for local-level training and a national secretariat as overseer) would be P89.59 million at a 15% discount rate. The LDAP, therefore, would have to generate gross benefits of P416.95 million per year to "break even" or to earn a 15% economic internal rate of return.

The results of the economic cost-benefit analysis have shown that the first-year returns alone in terms of benefits to the regions outside NCR may amount to P814.51 million, and that these benefits are not only sustainable but even expected to increase over time. Thus, even if the \$50 million were to be considered as part of program "costs," the net present value of the program would still be substantial. In fact, even if there would be no new money from NIRA, the benefits would still amount to P579.1 million, which would already be higher than the equivalent annual program costs of P416.95 million.

A sensitivity analysis is nevertheless done under a scenario where the regionalization of the infrastructure budget is considered as a fait accompli and would be excluded from the package to be "bought." The positive effects of the removal of mandatory contributions for the Integrated National Police and hospitals and the negative effects of the recent Salary Standardization Law are also considered. If the NIRA bill would be pushed for 1991, the flow of net new money to the non-NCR regions for 1990 that would be needed for the program to "break even" and earn a 15% economic internal rate of return would amount to P690.97 million, following the same assumptions used in the economic cost-benefit analysis.

C. Program Impact Assessment

The macro-level policy reform measures that would be put in place with the program may be thought of as constituting the program inputs. In the case of development assistance being tied to the policy reform program, the release of funds is often conditional on the implementation of these measures within a certain timetable. Defining indicators of performance for program compliance, however, is outside the terms of reference of this present study and falls instead within the scope of policy analysis.

The immediate output of the program would be the beneficial changes expected to occur at the local level, such as increased control by local governments over the sources and uses of funds. The intermediate effects would then come by way of more cost-effective programs and an expansion in the delivery of basic public services and the provision of local infrastructures.

Our ultimate interest is of course in evaluating the final economic impact of the program on the intended beneficiaries. However, monitoring the immediate output and intermediate effects would be necessary in assessing whether any observed change (or lack of it) in the indicators of welfare of the target population are in fact attributable to the program. In other words, we should see to it that a "with-and-without" approach rather than a "before-and-after" approach is followed in the evaluation design. A given area may show much improvement after the program has been put in place, but the improvement may have been due to factors other than the program itself.

It is then within this evaluation framework that a system of indicators for monitoring program output, effects, and impact is suggested. The methodology for the evaluation design involves: (a) the collection of secondary data from reports submitted by the LGUs to the Department of Finance for the output measures; (b) the monitoring of financial flows for local-level projects and programs initiated by LGUs and national line agencies for the effects indicators; and (c) the undertaking of sample surveys of households for the impact measures. Benchmarks are defined in terms of growth over the previous period and comparisons with national averages.

II. INTRODUCTION

A. Background

Countryside development constitutes one of the main foundations of the Philippines' efforts toward sustained recovery and long-term growth. However, the development thrust in the rural areas is often hampered by the inadequate flow of financial resources, infrastructure, and basic social services to the regions. This inadequacy stems not only from the low volume of resources trickling to the regions from the national government, but also from the low level of internal resource mobilization by the regions themselves and the lack of devolution of decision-making power to the people through their local governments.

Historically, national internal revenue allotments to the local governments have constituted less than 5% of national government expenditures (Table 1). Even with respect to future prospects, 1988 estimates of national government spending on public investments across regions would show the National Capital Region (NCR) getting the highest in absolute and per capita terms, as proposed per capita spending in almost all project categories correlates highly with the per capita gross regional domestic product (Table 2).

TABLE 1
DISTRIBUTION OF EXPENDITURES OF THE NATIONAL GOVERNMENT, CASH BASIS, 1975-1985
(In percent)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total Expenditures/GDP	15.9	15.1	14.8	14.8	13.7	14.4	15.0	15.4	13.8	12.3	13.1
Current Expenditures	80.5	77.3	77.7	73.3	69.1	64.3	54.9	58.9	65.3	64.7	69.1
Personnel Services	29.6	29.6	27.6	28.3	27.6	24.5	22.1	20.2	26.2	25.4	28.6
Maintenance	13.7	40.7	42.8	35.4	29.9	28.2	23.4	23.6	22.8	18.7	16.5
Interest Payments	3.4	3.6	3.9	4.3	6.2	6.0	5.1	6.8	9.4	15.7	18.3
Subsidy	0.0	0.0	0.0	2.4	1.4	1.6	1.1	3.8	2.1	0.6	1.3
LGU Allotments	3.8	3.4	3.4	2.9	4.0	4.0	3.2	4.5	4.9	4.2	4.4
Capital Expenditures	19.5	22.7	22.3	26.7	30.9	35.7	45.1	41.1	34.7	35.3	30.9
Infrastructure	11.5	13.2	10.3	13.9	14.3	19.3	20.7	14.3	13.1	9.5	6.9
Other Capital Outlays	0.0	0.0	2.0	2.6	2.3	2.8	5.6	4.8	6.5	5.3	4.1
Equity	7.3	9.0	9.7	9.3	11.4	11.9	16.8	17.8	10.8	14.9	18.0
Net Lending	0.7	0.5	0.2	0.9	2.9	1.8	1.9	4.2	4.2	5.7	1.9

Source: Manasan (1988).

TABLE 2
PUBLIC INVESTMENT PER CAPITA, BY REGION, BY PROJECT TYPE, 1988-1992
(In pesos per capita, 1988 population)

Project Type	NCR	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	R ^a
Roads	739	924	1406	375	804	909	651	813	1231	739	828	617	1153	-0.35
Ports	345	42	144	5	152	121	55	131	89	72	118	105	18	0.78
Urban Transport	660	0	0	0	0	0	0	0	0	0	0	0	0	0.91
Railways	92	7	0	39	85	93	1	0	0	0	2	1	2	0.49
Airports	4	1	8	0	6	8	13	70	11	20	14	25	12	-0.03
Water Supply	1623	97	111	202	91	134	90	149	102	132	122	93	132	0.90
Irrigation	0	145	406	807	135	102	99	125	78	42	145	433	612	-0.17
Flood Control	348	153	92	171	34	175	37	31	28	22	150	59	57	0.64
Schools	448	211	237	206	232	246	249	227	281	270	253	249	273	0.80
Health Facilities	42	172	206	158	173	185	182	154	199	172	163	204	178	-0.89
Urban Infra	393	15	0	9	20	9	31	0	7	4	54	63	19	0.93
Telecomm	100	211	180	317	164	174	185	252	103	164	341	269	211	-0.20
Postal Facilities	35	10	13	8	8	8	8	11	10	12	11	9	11	0.85
Total	4828	1989	2802	2297	1905	2164	1601	1961	2140	1650	2202	2128	2678	0.79
W/o Urban Transp	4168	1989	2802	2297	1905	2164	1601	1961	2140	1650	2202	2128	2678	0.74
1987 GRDP/capita	3959	1008	938	1408	1842	776	1344	1574	729	1117	1441	1736	1360	

^a Correlation coefficient with 1987 GRDP per capita.

Source of Basic Data: NEDA, Updated Philippine Development Plan, 1988-1992 (July 1988 draft).

Decentralization, therefore, is a key administrative and political policy reform that is considered crucial to the rural development effort, and USAID hopes to help address this issue through its proposed Local Development Assistance Program (LDAP). The LDAP is meant to support policy reforms leading towards a more decentralized political system whereby local governments will have more authority in mobilizing their communities' resources, promulgating laws and policies, and having a more reasonable share in the national government's financial and human resources.

Through the enactment of appropriate legislation, executive policy adjustments, and administrative guidelines on the budgetary process, policy reforms are expected to raise the level of financial resources at the direct disposal of the local governments. Specific policy actions that would enhance this objective include: (1) increased budgetary allocations from the national government under the revised National Internal Revenue Allotment (NIRA) scheme; (2) reduced national government control over local government budgets, with the reduction in mandatory local government contributions such as the ones for hospital care and for the Integrated National Police; and (3) increased local revenue generation. The latter would come about with increased local property tax collections as a general revaluation of real property is implemented, incentives for increased local business and real property tax collections are granted, and increased local government powers to impose local taxes and fees are put in place.

On the expenditure side, important policy reforms would include: (1) the decentralization and regionalization of the infrastructure budget of the Department of Public Works and Highways; (2) increased internal revenue allocations to the provincial, city, and municipal levels under the new National Internal Revenue Allocation bill; and (3) the devolution of some of the administrative and regulatory functions of national line agencies to the local governments as increased authority of local executives over locally assigned national staff is granted under the proposed Local Government Code (LGC).

Hand-in-hand with the need for greater local autonomy would be the need to strengthen the capacities of local governments for revenue generation, general administration and management, and project development (from design to feasibility analysis to monitoring and evaluation). Specific policy actions toward this goal would include additional funds for tax mapping, records upgrading, and tax collection; provision of management training of local officials through the Local Government Academy; improvement of LGU management systems; and institutionalization of the participation of non-government organizations (NGOs) and the private sector in local development as increased use of private sector maintenance contracting is attained, especially for road infrastructure.

It is expected that with such powers vested upon the local governments, and with corresponding support for the strengthening of local administrative and managerial capacity, the construction and maintenance of local public utilities and infrastructure and the provision of basic social services will improve, both in timing and in composition. Not only will there be less delays in the construction and maintenance of local public infrastructure and the delivery of basic services, but the most urgent from the viewpoint of the beneficiaries will then receive priority. The ultimate impact will be on the economic welfare and quality of life of the rural population.

Decentralization will of course entail some initial costs. Direct costs would include incremental outlays for local-level capability building in such aspects as financial management and project planning and implementation. There would be some attendant risks as well, with "friction" to be expected in the beginning, as local government politicians vie for visibility and credit. As part of the learning process, project development may also not run smoothly at the start.

B. Objectives of the Economic Study

With this background, the objectives of this study are thus: (1) to prepare an economic cost-benefit analysis of the LDAP, and (2) to provide a proposal for tracking the economic impact of the program through a system of indicators.

The literature on regional development and local public finance is replete with discussions on the likely economic impact of decentralization and local autonomy in qualitative terms (see, for example, Ranis 1989; Rondinelli 1989; Rondinelli and Nellis 1986), and micro-level case studies of both their beneficial and adverse consequences are often conducted (Rondinelli and Wilson 1987; World Bank 1989). However, no study seems to exist as yet which tries to value the possible flows of economic benefits and costs of decentralization and local autonomy measures at the macro level.

Part III of this study presents the framework for the economic analysis of the LDAP. This is followed in Part IV by an exposition of methodological issues and sources of data for the analysis. Part V discusses the results of the economic cost-benefit analysis. In Part VI, an indicators-based system for the evaluation of the LDAP's economic impact is proposed. Finally, Part VII offers an overall assessment and suggests a set of recommendations that are hoped to enhance the benefits from decentralization efforts.

At the very outset, the caveat should be kept in mind that the figures reported in the results are merely indicative of the potential economic gains with decentralization. As in any cost-benefit effort, they are "with-and-without" projections based on certain assumptions concerning the expected mode of program implementation and empirical evidence on the possible outcomes of specific program components. They are not meant to be forecasts of the likely future situation.

III. THE FRAMEWORK FOR ECONOMIC ANALYSIS

A. Efficiency and Equity Notions

The beneficial outcomes of policy reforms toward increased local autonomy, properly supported by capacity strengthening of LGUs, would come about by way of increased efficiency in the use of resources and enhanced equity in the incidence of revenue and spending patterns. It is increasingly being recognized in the development literature that local governments are in a better position than the national government to provide both the level and mix of public services that most closely meet the preferences of residents in their jurisdiction. Economic efficiency is thus promoted as a closer match between public services and the multiplicity of individual preferences is attained. At the same time, decentralization promotes greater accountability and equity by clearly linking the benefits of such services with their costs (World Bank 1988).

Economic efficiency may be defined in broad terms as maximizing the net present value of output from a given level of inputs, where both output and inputs are valued so as to reflect their true opportunity costs to the economy. For activities with distinct social objectives (such as rural health programs) for which the market valuation of output does not exist or is deemed not reflective of society's preferences, efficiency is often defined in terms of seeking approaches that minimize costs (World Bank 1983). This notion of economic efficiency holds as well for the regular administrative functions of general government, such as in the adjudication of court cases or in the provision of internal safety.

Equity goals such as alleviating poverty and meeting basic needs are consistent with economic efficiency. First, the use of more cost-effective methods would mean the availability of more resources to meet these goals directly. Then, too, improvements in efficiency ultimately redound to benefit of the rural poor as better placed infrastructure and better managed support services programs allow the poor beneficiaries to be themselves more efficient in their undertaking. Improved roads; for example, help reduce transport costs of agricultural output and inputs, thus raising farm incomes and rural welfare.

B. Estimating the Economic Benefits

The flow of possible benefits from decentralization and local autonomy is better seen by taking a closer look at the regular activities of local governments, which can broadly be classified into three major areas: (1) administrative and regulatory functions; (2) the provision of general public services; and (3) the construction and maintenance of public infrastructure.

1. Administrative and Regulatory Functions

Anybody who has had some exposure to the present system of budgeting in the Philippines would decry the highly centralized system of approval for the release of funds. In the name of proper safeguards and financial control, several signatures would be needed

to get anything done; in some cases, the approving authority reaches all the way up to the central office in Manila even for matters that pertain to the municipal level. A significant amount of resources is lost in terms of worker time and travel funds spent just to follow up on documents.

The convoluted bureaucratic procedures hamper not only the dealings among the different government agencies but extend as well to transactions between the government and the private sector. In government procurement, the suppliers thus factor in the delays when they submit their bids. Even in the simple matter of business registration, the need for approval by a national agency may encourage enterprises to go "underground" instead. Decentralization and local autonomy measures would help save on these costs.

The devolution of power to the local governments over licensing and regulatory functions would also lead to efficiency gains, as spillover effects (costs to the local community, in particular) are better internalized. Two such broad areas are natural resource exploitation and local public transport operation. For example, in logging, recent experience in Aurora province shows that local residents do mobilize to prevent the wasteful destruction of their forests by timber concessionaires who do not take into account the costs (such as flooding) that their illegal activity imposes on the local community. However, transactions costs for such efforts are often high, as the people have to lobby before national government agencies whose offices are difficult to reach. In the regulation of local public transport operations, the local government similarly would be in a better position to determine local needs while taking into account the attendant congestion costs.

2. General Public Services

With LGUs having more control over their financial resources, it is expected that they would economize in the use of their funds, so that public services (garbage collection, public health and sanitation, water supply, fire protection, parks and recreation, etc.) can be provided at the local level at reduced unit costs. For the same level of services provided under the "without decentralization" situation, therefore, cost savings may be realized.

At the same time, with the decision-making unit more closely in touch with the needs of the beneficiaries, there is a better chance that the "correct" amount would be provided. In the "without decentralization" situation, the level provided may be too low to clear the market, such that the service gets rationed. Or, in the opposite case where the level provided may be too high, scarce resources are thereby wasted.

3. Public Infrastructure Spending

Empirical documentation has been growing on the developmental effects of rural infrastructure--particularly transportation, elec-

trification, and communication networks--on agricultural production and productivity, nonfarm employment and incomes, and rural welfare in general (IFPRI 1989; World Bank 1983; World Bank 1989). While the immediate, measurable effect of development and improvement of rural road networks is the reduction in transport costs, the efficiency gains that such developments afford have been observed to be highly associated with the faster diffusion of agricultural technology, the flourishing of more competitive markets, and the increased mobility of rural labor, which are all supportive of higher rural productivity and incomes.

For the Philippines, it is widely held that the economic crisis in the early 1980s and the concomitant reduction in public spending on capital development and maintenance have brought about a severe deterioration in the infrastructure facilities especially in the rural areas. Between 1983 and 1985, the public investment program was cut by more than half in real terms, while operating and maintenance expenditures declined by 40 percent. While the need to raise the level of public investment spending was clearly recognized by new government, actual performance since 1986 has fallen short of national targets, so that doubts have been raised on the "absorptive capacity" of the economy for additional public investment, with the highly centralized system of project development and fund disbursement receiving much of the blame (Alonzo 1989).

With decentralization and increased local autonomy, it is hoped that the level and composition of public infrastructure development and maintenance would improve, as decision-making is brought down to the sub-national units of government. It is also hoped that unit costs for construction and maintenance would decline, as the local governments would not be constrained to follow uniform national design standards and would therefore be more responsive to relative input price differences.

For both the provision of general public services and the construction and maintenance of infrastructure, therefore, an increase in the level of public spending is expected with the increased flow of funds in the control of local governments and with the cost saving that local control would engender. With the present situation, the national government may not get into activities and projects which are deemed too "small" because of administrative procedures that raise transactions costs, but local governments may not have sufficient funds to start them. Piecemeal efforts are thus sometimes resorted to, as in the recently passed legislation allotting a concretized road or multi-purpose pavement for every barangay, with the surface area depending on the barangay population. With true decentralization and local autonomy, the need for such well-intentioned but somewhat mechanical measures would be minimized.

The relative composition of local public expenditures is also expected to change with more local autonomy, as public sector activities become more attuned to the priorities of local residents. There have already been several cases where nationally determined projects were rejected by the local authori-

ties as being too costly and with components that did not address the communities' needs. Even in the present system where infrastructure funds by project category for each province are determined centrally, it is observed that provinces in certain regions "trade" among each other in their allotments for different infrastructure categories. For example, one province would exchange part of its port development budget with the rural roads budget of another province.

Changes in the input mix of local public sector activities are also likely to materialize with decentralization, as local decision-making takes better account of relative factor price differences at the local level. The use of cheaper indigenous resources such as labor and materials would thus be favored, and local multiplier effects on employment and incomes would be more pronounced.

Decentralization may also alter the scale and design of programs and projects. National guidelines are often standardized for administrative convenience, applying averages which are either higher or lower than local requirements, as in the allocations for road maintenance works and the public hospitals program. Funds coming from above are also often viewed from below as "gifts" at zero or minimal cost to the recipient, so that the situation may end up with over-built facilities for favored localities and none at all for the ones out of favor. Even when local equity is required, as in the public markets program under the Economic Support Fund, if the external resources are tied to the project and provided for free or at subsidized interest rates, local governments would naturally opt for the grander scale.

Local control over development funds and the regularity in their flow that decentralization would bring about would also improve the timing of local public sector activities, with less delays in implementation and faster response to local needs. Speed of implementation is of course not an end in itself; ill-conceived and ill-prepared projects are obviously better postponed or canceled altogether. But it is expected that the devolution of project development activities to the sub-national levels would reduce the chances of such projects materializing.

C. Attendant Economic Costs

Policy reforms toward decentralization and local autonomy would of course have their attendant economic costs, direct and indirect. The direct costs, as mentioned earlier, would include incremental outlays for capability building at the sub-national levels in such aspects as general government administration, financial management and project development. Allocation also has to be made for overhead expenses for a national secretariat that would oversee the early phase of program implementation.

The indirect costs of a decentralization program are likely to be higher than the direct costs, although proper program design could help minimize them. Foremost is the possible efficiency loss (in the context of the discussion above) in those cases where the local government is not sufficiently prepared for the responsibilities that come with local autonomy. The program could be phased such that LGU "absorptive capacities" are taken into account.

It has been noted by the Cabinet Assistance System that some provincial governors may not want any increased responsibility but may prefer simply that their regular revenue allotments arrive regularly and promptly.

Some amount of "friction" may be expected at the start, arising from heightened competition among local government politicians vying for visibility and credit. There is also the risk of the local political and economic elite conniving to usurp the powers attendant to local autonomy to further their own self-interest at the expense of others, as in the awarding of contracts and franchises. A more widely dispersed rural infrastructure system in transport and communications would help minimize this as competition from other localities would be enhanced. But there would nevertheless be the need to involve NGOs with grassroots links in local project development and monitoring to serve as countervailing power against the local oligarchies.

Finally, incompatibilities and conflicts between national and local objectives may arise with decentralization. A case in point is in the prices for use in project analysis. The national government uses shadow prices determined at the national level (such as for foreign exchange, with corresponding implications on output and input prices). Local governments will most probably use market prices, which are closer approximations of the true costs to them of the resources used or produced. Benefits or costs to non-residents will not be counted. While national efficiency objectives are sacrificed, however, this procedure will lead to more projects whose benefits accrue to the local populace and will therefore be supportive of equity objectives. It will also put pressure on the national government to formulate macro-level policies that would align the market prices of commodities and services to their true social opportunity costs, leading to overall efficiency gains in the private sector as well.

IV. METHODOLOGY AND DATA SOURCES

A. Methodological Issues

Identifying the benefits and costs of decentralization and local autonomy measures is a relatively easy task, with the development literature replete with examples. Quantifying and valuing them, however, would be much more difficult. The first activity for these endeavors would involve the projection of the flow of funds in the control of LGUs, without and with the proposed policy reforms. This would mean defining the proposed policy reforms in operational terms and translating these reforms into cash flows. The inflows of funds in the control of the LGUs would be of two kinds: (1) those already being spent by the national line agencies in the regions which would be diverted to the LGUs, and (2) those that would constitute "new money" to the regions.

The "with program" situation adopted in this study follows the scenarios depicted in the Memorandum from the Office of the Cabinet Secretary dated 18 April 1989 and entitled, "Implementing Decentralization and Local Autonomy" and amplified in a paper by Undersecretary Ramon Katigbak of the Department of Finance entitled, "Preparing Local Governments for Decentralization and Local Autonomy," dated 21 June 1989. The same scenarios were followed by the "Decentralization: Finance and Management Project" sponsored by the USAID which conducted a local fiscal integrity analysis for the LDAP (see Hubbell et al. 1989). The specific components of these scenarios are discussed in Part V.

Patterns of local government spending, again without and with the policy reforms, would then have to be projected, with the focus on general public services and infrastructure development and maintenance. The "without decentralization" scenario would be mainly a projection of recent trends. For the projections of LGU spending "with decentralization," an analysis of local spending patterns would be made based on samples of LGUs with varying degrees of fiscal autonomy. The expectation is that high levels of spending on general public services and local infrastructure are associated with high levels of local government revenue. Estimates of marginal propensities to spend out of additional LGU revenues on different expenditure categories would be generated using regression techniques.

Indications of unit cost savings under LGU control and benefits per peso of additional expenditure on the category of public service will be gleaned from feasibility study documents, from project monitoring documents (such as proposed and actual programs of work), and from other research studies, including those based on the experience of other countries.

Efficiency gains arising from the devolution of the national government's administrative and regulatory functions to the local governments are much more difficult to estimate, as externalities and spillover effects, by their very nature, are often left out of the private cost-benefit calculus and therefore do not get considered in market outcomes. The measurement problem is particularly acute in the case of environmental concerns. This aspect of benefits arising from decentralization policy reforms will therefore be discussed qualitatively, with the citation of specific instances where gains have clearly been achieved with more local autonomy.

For the valuation of the direct costs of policy reforms for decentralization and local autonomy, the Memorandum from the Office of the Cabinet Secretary has an estimate of the operating cost of a national secretariat that would oversee the program in its early phase, and general orders of estimate of the costs of capability building for local executives can easily be made. However, the indirect costs are difficult to measure; but with sensitivity analysis, their effects can be expressed in terms of reduced efficiency in the achievement of the benefits that could be valued. For example, one could examine what the economic net present value of the policy reform program would be if these indirect costs and risks reduced program benefits by, say, 20%.

The intermediate output of the cost-benefit efforts would be an annual flow of benefits and costs associated with the decentralization program, where the benefit flows are categorized by local government function (the provision of general public services and the construction and maintenance of local public infrastructure). The final output would be the conventional discounted cash flow measures of program worth from the economy's viewpoint, with an analysis of the sensitivity of these measures to the possible effects of indirect costs and risks that have not been quantified or valued in peso terms.

B. Data Sources

In the implementation of our research design, we visited two (Laguna and Davao) of the five pilot provinces chosen by the Cabinet Action Committee on Decentralization and interviewed the provincial officials. We also paid visits to the provincial offices of different national government agencies (the Department of Public Works and Highways and the Department of Agriculture in Laguna, and the Department of Local Government in Davao). While we were successful in reaching the officials of the provincial governments (including the Governors, the Provincial Treasurers, the Provincial Engineers, and the Provincial Development Officers), we were not as fortunate with the local heads of the national government line agencies, who were either attending meetings or following up papers in their regional offices. We did find responsible people in the respective offices who were very cooperative and helpful. The information gathered from the visits to the two provinces provided us with the micro-level data we used in estimating unit benefits with the program.

We also interviewed Undersecretaries Ramon Katigbak of the Department of Finance, Benjamin Diokno of the Department of the Budget and Management, and Ricardo Umali of the Department of the Environment and Natural Resources. The interview with Undersecretary Katigbak was particularly insightful, as he was the one who wrote the Memorandum.

Secondary data were gathered from the Bureau of Local Government Finance of the Department of Finance on Consolidated Budget Operations of local governments at the provincial and regional levels. We also examined feasibility studies for different project categories (roads, schoolbuildings, public markets, etc.) submitted by LGUs to the Economic Support Fund Secretariat and PREMIUMED, two national agencies that fund local infrastructure projects, to get indications of unit construction costs which we meant to compare with the Guidelines of the Department of Public Works and Highways ("Unit Price Ceilings of Civil Works Pay Items," dated May 1989, and "Unit Costs of Infrastructures" as of July 1989).

V. RESULTS OF THE COST-BENEFIT ANALYSIS

A. Preliminary Considerations

The present economic and political situation is so fluid that it is difficult to read the likely future scenario with respect to policy reforms in decentralization and local autonomy. The year 1989 has passed but the two most significant pieces of legislation dealing with these issues, namely, the National Internal Revenue Allocation (NIRA) Bill and the Local Government Code, have yet to be passed. To say the least, disappointment has been expressed by the League of Leagues (composed of associations of local executives) concerning the lack of political will of the national executive branch in putting pressure on Congress to pass the needed reforms into law.

Just a week before the coup attempt, the newspapers reported that the House of Representatives had significantly cut back on the appropriations that would go to the local governments. Even within the national executive offices, certain line departments are perceived to be half-hearted in the push for decentralization objectives (Decentralization Watch 1989). Whether the recent putsch will change the scenario favorably or adversely for the local governments remains to be seen.

As mentioned earlier, we thought it best to follow the scenarios contained in the Memorandum from the Office of the Cabinet Secretary dated 18 April 1989 and entitled, "Implementing Decentralization and Local Autonomy," in order to "put a handle" on the economic cost-benefit analysis. Katigbak (1989) adds on to the Memorandum estimates of the additional funds expected to fall under local government control with these scenarios. Basically the same policy scenarios were used in the Local Fiscal Integrity Study (Hubbell et al. 1989).

The Memorandum discusses three major decentralization measures that could be implemented immediately: (a) a new regional allocation system for the infrastructure budget of the Department of Public Works and Highways (DPWH); (b) the passage of the NIRA Bill (the Senate Bill No. 927 version) into law; and (c) the devolution of some of the national line agencies' functions, projects, facilities, and personnel to the local governments. The third measure is already being done in five pilot provinces (albeit slowly) through the Cabinet Action Committee on Decentralization; it would be formalized and hastened with the passage of the Local Government Code which specifies the areas to be devolved.

The Memorandum has its own projections on the financial impact of the major decentralization measures (p. 26; see also Katigbak 1989, p. 2). The regionalization of the infrastructure budget is estimated to bring in P14,151 million of additional funds under local government control; the passage of the NIRA bill would add another P6,000 million; the biggest chunk would come with the passage of the new Local Government Code, through which P27,100 million would be devolved to the LGUs with the transfer of responsibility and funding of some of the regional and local functions of several line agencies. This would yield a total of P47,251 million worth of additional funds, representing a 347.5% increase over the 1989 NALGU funds of P10,559 million, according to the Katigbak's estimates.

The projections, however, picture a "best case" scenario. The regionalization of the infrastructure budget involves the apportionment of the funds on a "block" or lumpsum basis to the different regions based on the "20-30-50" rule (where the numbers represent the weights given to equal sharing, population, and some scarcity of infrastructure index). But the use of the funds is subject to the following guidelines: (a) the regional development council allocates lumpsum budgets for each of the provinces and approves projects with a cost of over P500,000 up to P1 million; (b) the provincial development council allocates lumpsum budgets for each of the municipalities and approves projects with a cost of between P100,000 and P500,000; and (c) the municipal development council allocates lumpsum budgets for each of the barangays and approves projects with a cost of less than P100,000.

With these guidelines, the DPWH estimates that the regional authorities would have control over 31.34% of the Infrastructure Fund, while provincial and municipal authorities would have the approving authority over 23.13% and 10.98%, respectively. If local autonomy were to be viewed strictly at the level of the local chief executive, then less than half of the P14,151 million would really be under local control. The earmarking of the funds for infrastructure projects is also a restriction, but these funds could help release for other purposes part of the LGU's own budget that would otherwise have gone to local infrastructure.

The NIRA bill would move forward the base year for the computation of the internal revenue allotments (from three to two years previous to the current year), remove the mandatory contribution for the Integrated National Police and hospital care, and provide fiscal incentive grants for local governments which are able to perform efficiently in the collection of real property taxes. Historically, however, only about one-half of the maximum statutory amounts have been given to the LGUs, and they often come late, so that the LGUs have to lobby constantly for the release of the allotments.

The devolution of national line agency functions and powers to the local governments, as envisioned in the proposed Local Government Code, also contains certain restrictive provisions. While the regional components of the line departments' operations would include the turnover to the LGUs of the corresponding organization and budget, the regional budget would still be divided by the national departments into "mandatory" and "discretionary" programs, where only the latter may be reallocated by the LGUs to other programs.

Given these limitations on the authority and control of LGUs over the funds that are supposed to come with the proposed measures, the cash flow projections given below adopt a more conservative stance than the Memorandum does on the issue of how much would really devolve to the local governments. It should also be kept in mind, as noted earlier, that what flows to the LGU may mean new money to the area, as in an increase in the internal revenue allotment, or it may simply mean a transfer in the control of funds going to the area anyway, as in the case of the regionalization of the infrastructure budget and the devolution of national line agency functions to the local government. This distinction is important in the estimation of the corresponding economic benefits flowing from these measures, as will be seen later.

B. Projecting the Flow of Funds under LGU Control

While a substantial amount of public funds does get expended in the regions, the bulk of these funds is in the control of the national government. For 1989, even the National Capital Region (NCR), the richest region, is projected to spend considerably less than the national government does on its own constituents (Table 3). In Region II and the Cordillera Autonomous Region (CAR), local government expenditures are in fact less than a tenth of national government expenditures.

TABLE 3
PROJECTED LOCAL AND NATIONAL GOVERNMENT EXPENDITURES, 1989
(In million pesos)

Region	Local	National	TOTAL	Local/ TOTAL
Nationwide		52032	52032	n.a.
I	758	5233	5991	12.7%
II	276	3724	4000	6.9%
CAR	220	2281	2501	8.8%
III	1484	6200	7684	19.3%
IV	1676	9146	10822	15.5%
V	622	5148	5770	10.8%
VI	1041	6624	7665	13.6%
VII	1065	5067	6132	17.4%
VIII	513	4901	5414	9.5%
IX	480	4013	4493	10.7%
X	794	4831	5625	14.1%
XI	862	4899	5761	15.0%
XII	457	4282	4739	9.6%
NCR	4214	10114	14328	29.4%
TOTAL	14462	128495	142957	10.1%
Excluding Nationwide	14462	76463	90925	15.9%
Excluding NCR	10248	66349	76597	13.4%

Source: Office of the Cabinet Secretary, "Implementing Decentralization and Local Autonomy," 18 April 1989, Table 2.

The regionalization of the infrastructure budget, as discussed earlier, would allow the transfer of control over infrastructure spending (within certain limits) from the national level to the municipal, provincial, and regional levels. The passage of the NIRA bill would infuse new money to the regions, while the devolution of national line agency powers to the local governments (either by executive orders or through legislative fiat under the proposed Local Government Code) would allow the transfer of other forms of national spending to the local levels. The financial implications of these measures are traced out in Tables 4 and 5. The presentation includes the separation of NCR from the other regions, in order to link the economic analysis of the policy reform program more closely with the goals of equity and rural development.

Table 4 projects the funds flow without and with the regionalization of the infrastructure budget, without and with NIRA, and without the devolution of other national line agency functions. The first column of figures gives the situation in 1989; only 15.9% of total government expenditures that could be classified as accruing mainly to the regional population can be attributed to the LGUs. This percentage is even on the high side, as the LGU budget is subject to many restrictions and mandatory contributions. Outside NCR, the sum that could be considered as local (in the loose accounting sense) drops down further to 13.4% of total public expenditures for the regions.

The second column of Table 4 projects the pattern of local and national government spending for 1990 if no substantial measures are taken towards increased local autonomy (case 0). It is assumed that total government spending on the regions would increase by 10%, even without any new policy reform measures, as the support for regional development initiatives is embodied in the present political system of participatory democracy, and both the executive and the legislative branches agree in principle that more resources should go to the regions. However, because of present fighting for control between the local and national government officials (as reflected for example in the debates over the NIRA bill and the Local Government Code), the relative shares of local and national government spending on the regions are projected to remain the same between 1989 and 1990, in the absence of any new policy reform measures.

The third and fourth columns of Table 4 show the projected financial flows with the regionalization of the infrastructure budget when only provincial and municipal control is considered local (case A), and when even regional control is considered local (case B). It can be seen that total government spending would remain the same as in the "without policy reform" scenario, but the share of locally controlled spending, from a base of 15.9%, would rise to 19.3% in case A and 23.7% in case B. In absolute terms, the net transfers would amount to P3,380 million in case A and P7,815 million in case B. For the regions outside NCR, the relative differences from the base case of 13.4% are even more dramatic, as the local share rises by P3,506 million (to 17.5%) in case A and by P7,668 million (to 22.5%) in case B.

The fifth, sixth, and seventh columns of Table 4 present the projections for 1990 if the national internal revenue allocations would bring in P6,000 million in new money to the regions under the control of the LGUs. The three columns differ in assumptions concerning the regionalization of the infra-

TABLE 4
PROJECTED FUNDS FLOW TO REGIONS
(In million pesos)

		w/o Devolution					
		w/o NIRA			w/ NIRA		
1989		case 0	case A	case B	case 0	case A	case B
(1)		(2)	(3)	(4)	(5)	(6)	(7)
Incl NCR							
LGU	14462	15909	19289	23724	21909	25289	29724
NGU	76463	84109	80729	76294	84109	80729	76294
Total	90925	100018	100018	100018	106018	106018	106018
Excl NCR							
LGU	10248	11273	14779	18941	16878	20384	24547
NGU	66349	72984	69478	65316	72984	69478	65316
Total	76597	84257	84257	84257	89862	89862	89862
Percent Distribution:							
Incl NCR							
LGU	15.91	15.91	19.29	23.72	20.66	23.85	28.04
NGU	84.09	84.09	80.71	76.28	79.34	76.15	71.96
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Excl NCR							
LGU	13.38	13.38	17.54	22.48	18.78	22.68	27.32
NGU	86.62	86.62	82.46	77.52	81.22	77.32	72.68
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes:

1. LGU represents spending by local governments; NGU represents spending by national government agencies.
2. With or without decentralization, the funds flow to the regions is assumed to rise by 10% for 1990. Case 0 assumes that the relative shares of LGU and NGU spending would remain the same between 1989 and 1990.
3. Case A assumes that 34.11% of 1990 DPWH Infra Fund of P14,151 million would be devolved to provincial and municipal control. Case B considers regional authority as also local, raising control to 65.45% of Infra Fund.
4. With NJPA, an additional flow of P6,000 million to the LGUs is assumed; for reg. as outside NCR, their share in the 1989 IRA (93.4%) is used.

Source of Basic Data: Office of the Cabinet Secretary, "Implementing Decentralization and Local Autonomy," 18 April 1989, pp. 6 & 25.

structure budget and the degree of local control over it (cases O, A, and B above). In the fifth column, we see that even without regionalizing the infrastructure funds, the increase in NIRA would raise the share of local government expenditures in absolute terms (by the full P6,000 million) as well as in relative terms (to 20.7% of total government spending in the regions). The same observation may be made of cases A and B. For the regions outside NCR, the increase would be P5,605 million, based on their projected 1989 share of 93.4% (Memorandum, p. 6).

The final set of scenarios has to do with the devolution of other national government agency operations and functions to the local governments (Table 5). The Katigbak study would attribute as much as P27,100 million of budgetary transfers from the national agencies to the local governments with this measure, even as the infrastructure budget transfers are excluded. We feel, however, that this is a very liberal (or highly optimistic) projection, as the regional budgets are to be partitioned by the line departments into "mandatory" and "discretionary" programs. The Katigbak study itself states, "Mandatory programs must be included by the LGUs in the regional budgets. Discretionary programs may either be included or the amounts involved may be reallocated to other programs." This provision of "mandatory" versus "discretionary" portions is likely to soften the impact of the devolution of power and financial control to the local governments. The projections in Table 5 thus assume that only 20% of the expected transfer of P27,100 million to the LGUs (P23,035 million to those outside NCR) would in fact be within the context of true local autonomy (at least in the early stages of implementation of the measure), as the national line agency officials, especially those in the central offices, may still hold lingering doubts on the capability of the local governments to assume their agencies' traditional functions.

Even with this conservative assumption, it can be seen from a comparison of the first and second columns of Table 5 that this policy measure alone (even without the regionalization of the infrastructure budget or the increase in internal revenue allocations) would lead to a substantial rise in the level and proportion of funds at the direct control of the LGUs (by P5,420 million and 5.4 percentage points, respectively). For the regions outside NCR, the absolute increase would be P4,607 million.

The third and fourth columns of Table 5 trace out the possible financial implications with the regionalization of the infrastructure budget and with devolution of other line agency functions, but without new money from NIRA. The increase in funds under local control would be P8,800 million for case A (sub-regional) and P13,235 million for case B (sub-national).

Table 5 thus presents the financial projections for local and national government expenditures under different combinations of the three major policy measures being adopted. The "best case" scenario in this regard is given in the seventh column. If all three measures would be adopted and if control by the Regional Development Councils would be considered as part of local autonomy, there would be an inflow of P19,235 million to the LGUs, of which P13,235 million would be a diversion of funds from national government control and P6,000 million would be new money to the regions. For the regions outside NCR, the transfer would amount to P17,880 million, of which P12,275 million would be via transfer of control and P5,605 would be new money.

TABLE 5
PROJECTED FUNDS FLOW TO REGIONS
(In million pesos)

		w/ Devolution					
		w/o NIRA			w/ NIRA		
	Base Case	case O	case A	case B	case O	case A	case B
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Incl NCR							
LGU	15909	21329	24709	29144	27328	30709	35144
NGU	84109	78689	75309	70874	78689	75309	70874
Total	100018	100018	100018	100018	106018	106018	106018
Excl NCR							
LGU	11273	15880	19386	23548	21485	24991	29153
NGU	72984	68377	64871	60709	68377	64871	60709
Total	84257	84257	84257	84257	89862	89862	89862
Percent Distribution:							
Incl NCR							
LGU	15.91	21.32	24.70	29.14	25.78	28.97	33.15
NGU	84.09	78.68	75.30	70.86	74.22	71.03	66.85
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Excl NCR							
LGU	13.38	18.85	23.01	27.95	23.91	27.81	32.44
NGU	86.62	81.15	76.99	72.05	76.09	72.19	67.56
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes:

1. With or without decentralization, the funds flow to the regions is assumed to rise by 10% for 1990. See the notes on Table 4 for the assumptions concerning Cases O, A, and B, without and with NIRA.
2. With devolution, only 20% of regional expenditures of the national line departments is assumed to be available to the LGUs for "discretionary" (versus "mandatory") programs. The projected regional budget of the line agencies to be devolved to the LGUs is P27,100 million for all regions (Katigbak 1989), of which some 85% would go to regions outside NCR, based on their share in the projected 1989 regional budget (as contained in the Memorandum).

Source of Basic Data: Office of the Cabinet Secretary, "Implementing Decentralization and Local Autonomy," 18 April 1989, pp. 6 & 25; and R. Katigbak, "Preparing Local Governments for Decentralization and Local Autonomy," 21 June 1989.

C. Patterns of Incremental LGU Spending

As the discussions on the framework and methodology have indicated, we would like to project the likely patterns of local government expenditures with the policy measures in place, as we shall be assigning different forms of economic efficiency gains to the different components of local public spending. Following the pattern of the previous section, we shall examine each of the three major policy measures dealing with decentralization and local autonomy and their likely effects on the composition of the typical LGU budget.

The regionalization of the infrastructure budget obviously ties the funds on to spending on local infrastructure (including different types of roads and bridges, domestic water supply, communal irrigation, flood control, shore protection, and office buildings, but excluding ports and schoolbuildings). While there are scale limitations imposed by budgetary ceilings per project, local governments especially at the provincial level do spend a substantial portion of their budget on infrastructure and these funds are fungible with the DPWH funds. The LGUs therefore have some leeway in having the DPWH fund several small projects in their own portfolio while using their own infrastructure funds to finance projects that exceed the budgetary ceiling. Moreover, road projects can easily be segmented so that funding for a major stretch can be subdivided into several "small" projects, even at the barangay and municipal levels. In other words, the budgetary ceilings per project are probably not as constrictive as they may initially seem.

The funds coming from the additional internal revenue allocations would have fewer "conditionalities" attached to them and it would naturally be more difficult to project how they would be used by the LGUs. We have, however, gathered three sets of data on local government spending patterns that would help us get some indication of what the LGUs are likely to do with the additional financial resources at their disposal. All three sets are cross-section in nature as we could not get reasonably consistent time series data within our time and resource constraints.

The first set of data, from the Bureau of Local Government Finance of the Department of Finance, gives the consolidated income and expenditures of LGUs by region for calendar year 1988 (see Table 6). Expenditures are classified into current and capital, where current expenditures include spending on general government, public welfare and internal safety (corresponding closely to social development in the national government's classification), economic development, and "others" (covering debt service and mandated budgetary reserves), while capital outlay includes spending on real property and equipment. It should be noted that the category "current" may actually include capital spending as well, especially on local infrastructure like roads (under "economic development").

We "standardized" the regional aggregate flows into revenues and expenditures per family (using the number of families by region from the 1985 Family Income and Expenditures Survey of the National Statistics Office). We then ran ordinary least squares regressions on the per family figures, with expenditures on the different categories as the dependent variables and total revenue as the independent variable, using linear and loglinear forms.

TABLE 6
 CONSOLIDATED INCOME AND EXPENDITURES
 OF LOCAL GOVERNMENT UNITS, BY REGION, 1988
 (In million pesos)

	I	II	CAR	III	IV	V	VI	VII	VIII	IX	X	XI	XII	NCR
INCOME														
Local Sources	321	124	121	672	711	234	361	416	138	125	259	311	141	2870
Revenue from Taxation	136	54	63	265	415	65	226	230	82	49	144	175	75	2253
Real Property Tax	70	29	46	172	297	40	160	141	59	27	99	103	56	1519
Business Tax	66	25	17	93	118	25	66	89	23	22	45	72	19	734
Non-Tax Revenue	185	70	58	407	296	169	135	186	57	76	115	136	65	617
Econ. Enterprises	51	29	23	232	130	27	70	68	21	21	56	57	27	99
Fees, Charges, Others	134	41	35	175	167	142	65	118	36	56	59	78	38	518
Aids and Allotments	253	182	123	425	580	307	405	345	250	255	362	364	212	427
BIR Allotments	208	165	106	330	512	270	371	313	231	234	290	324	201	419
National Aids	45	17	17	95	68	37	34	32	19	21	72	40	11	8
TOTAL INCOME	574	306	244	1097	1291	541	766	761	388	380	621	674	353	3297
EXPENDITURES														
Current Expenditures	518	182	109	997	1093	408	713	688	341	314	540	542	317	2758
General Government	186	77	32	282	410	163	254	216	133	129	183	177	119	542
Public Welfare & Safety	70	27	29	213	175	53	153	206	53	44	123	107	63	981
Economic Development	158	36	25	317	191	76	168	150	80	92	164	97	90	371
Other Expenditures	104	43	23	185	317	117	138	117	75	48	69	161	45	864
Capital Outlay	22	16	6	68	98	34	28	71	25	31	29	75	9	223
TOTAL EXPENDITURES	540	198	115	1064	1190	442	740	759	366	345	568	617	325	2980

Source: Bureau of Local Government Finance, Department of Finance; data as of 20 November 1989.

The regression results are reported in Table 7. The linear specifications in general give better results than the loglinear (in terms of higher correlation), so that we shall use only the former in the economic analysis. Among the expenditure categories, it may be observed that the marginal propensity to spend on general government out of total revenues is low; a P100 increase in total revenue would induce only a P10 increase in general government spending. This suggests the existence of economies of scale in local government management.

TABLE 7
REGRESSION RESULTS USING 1988 REGIONAL BUDGET DATA

A. Independent Variable: Total Revenue

Dependent Variables	Constant	B	t	² R
General Government	173.91	0.10	5.45	0.73
Public Welfare & Safety	-179.45	0.37	16.49	0.96
Economic Development	107.28	0.09	2.21	0.31
Other Current Spending	-106.17	0.30	10.71	0.91
Capital Outlay	-7.69	0.07	5.33	0.72

B. Independent Variable: ln Total Revenue

Dependent Variables (ln)	Constant	B	t	² R
General Government	2.08	0.51	5.06	0.70
Public Welfare & Safety	-7.30	1.80	8.07	0.86
Economic Development	0.21	0.73	2.56	0.37
Other Current Spending	-4.01	1.33	5.95	0.76
Capital Outlay	-4.43	1.23	3.46	0.52

What is surprising is the low estimate of the marginal propensity to spend on "economic development," perhaps a reflection of the dependence of LGUs on the national government for this type of funds and the mandatory restrictions imposed on the local government budget. The category with the highest marginal propensity to spend out of total revenues is public welfare and internal safety.

We also obtained from the Bureau of Local Government Finance the 1987 Consolidated Budget Operation Statements (combining the General Fund, the Infrastructure Fund, and the Special Education Fund) for 12 provinces, to give us a more detailed picture of the patterns of local government spending, at least at the provincial level (see Table 8). After a "standardization" process similar to what we did with the regional data, we ran regressions with the more detailed expenditure categories as dependent variables and total revenue as the independent variable.

The regression results presented in Table 9 show a much higher marginal propensity to spend on "economic development" (particularly by the Provincial Engineer's Office); an increase in total revenue of P100 would induce a P58 increase in economic development spending. Expenditures on general administration and government finance are also highly sensitive to increases in provincial government revenue, while items under public welfare and internal safety have low marginal spending propensities.

TABLE 8
REVENUES & EXPENDITURES PER FAMILY, 1987
(In pesos per family)

REVENUES	NGOC	BTNS	TRLC	DVAO	LGNA	ALBY	LYTE	ESMR	CDWS	CVTE	ANTQ	CAPZ
A. TAX REVENUE	38	64	41	52	113	20	37	19	21	63	19	16
1. Total Real Property Tax	33	48	32	40	90	15	35	16	16	54	16	14
2. Total Local Taxes	5	16	9	11	22	5	2	3	5	9	4	2
B. NON-TAX REVENUE	10	1	3	13	17	2	1	5	5	1	3	0
1. Total Oprating & Srvc Income	0	1	2	0	6	0	0	0	0	0	0	0
2. Govt Business Operations	10	0	0	13	11	2	1	5	5	0	3	0
a. Rentals of bldgs & eqpt	0	0	0	6	0	2	0	2	5	0	3	0
b. Receipts from pblic utilities	2	0	0	0	6	0	0	1	0	0	0	0
c. Rcpts frm othr ecn entrpSES	3	0	0	1	1	0	0	0	0	0	0	0
d. Others	4	0	0	5	3	0	1	2	0	0	0	0
C. OTHER INCOME	169	731	378	227	150	250	146	273	334	153	190	155
1. BIR Allotments	115	367	133	97	69	95	112	200	163	60	152	101
2. Sale of Assets	1	0	0	0	0	25	0	0	0	0	0	1
3. Share in SEF Collections	0	0	0	1	0	1	0	0	35	20	0	24
4. Loans & Borrowings	1	0	0	0	0	0	0	0	0	41	0	0
5. National Aids	16	274	49	0	38	0	7	29	0	32	19	19
6. Interest Income	9	25	4	17	3	6	10	2	3	0	10	1
7. Aids from municipalities	0	0	0	32	0	0	0	0	107	0	0	9
8. Aid & Contrib. for Health/Agric	4	6	179	13	4	82	2	4	0	0	0	0
9. Inter-Fund Transfer	13	0	13	13	30	39	4	30	14	0	0	0
10. Curr surpls adj (Prior yrs adj)	11	60	1	24	5	2	3	9	13	0	9	0
11. Others	0	0	0	29	0	0	9	0	1	0	0	0
GRAND TOTAL (A + B + C)	217	796	422	291	279	272	185	297	360	216	212	171

Table 8 (continued)

EXPENDITURES	NGOC	BTWS	TRLC	DVAO	LGNA	ALBY	LYTE	ESMR	CDNS	CVTE	ANTQ	CAPZ
A. GENERAL ADMINISTRATION	34	185	47	35	54	45	28	45	89	51	38	149
1. Office of Governor	12	76	32	21	48	36	19	22	53	38	21	68
2. Sangguniang Lalawigan	5	75	4	5	4	6	6	20	23	6	10	10
3. Provincial/Brngy Sectriat	2	0	0	0	0	0	0	0	0	0	0	0
4. Budget Office	1	25	3	2	1	2	0	3	9	1	3	0
5. Provincial/Municipal Auditor	1	9	1	2	1	1	1	1	4	0	1	69
6. Other Offices	13	0	7	3	0	0	0	0	0	4	4	2
B. GOVERNMENT FINANCE	17	155	32	27	14	22	17	31	50	15	30	26
1. Prov Treasurer's Office	11	121	22	17	9	14	10	20	33	9	19	19
2. Prov Assessor's Office	6	34	10	10	5	8	7	12	17	7	11	8
C. ADJUDICATION	2	14	3	4	2	2	3	4	5	4	1	2
D. PROTECTIVE SERVICE	9	8	28	20	14	5	5	12	12	9	13	3
E. SOCIAL IMPROVEMENTS	36	22	16	38	32	12	24	30	16	23	12	3
1. Maintenance of Schools/High Schls	18	0	13	27	27	3	6	17	3	14	0	2
2. Maintenance of Prisoners/Jail	11	22	0	10	0	8	15	13	13	8	10	0
3. Provincial Library	1	0	2	0	0	1	1	0	0	0	1	0
4. Health Services	7	0	20	14	6	5	5	12	8	9	13	3
5. Social Welfare	4	0	0	1	3	0	0	0	0	0	0	3
6. Parks, Plazas, Monuments/Others	3	0	1	0	2	0	2	0	0	1	0	0
F. ECONOMIC DEVELOPMENT	72	362	283	102	38	86	51	95	103	6	65	16
1. Provincial Agriculturist	10	4	3	16	8	5	10	11	6	4	8	0
2. Provincial Development Staff	2	35	6	4	0	5	3	5	10	1	10	7
3. Provincial Engineer	55	320	268	78	21	76	36	78	87	0	41	8
4. DLG/POPCOM	5	4	6	4	9	0	1	2	0	2	6	0
G. OPERATION OF ECONOMIC ENTERPRISES	4	22	2	1	4	0	0	0	0	0	0	0
H. INTER-GOVERNMENT AIDS	5	0	3	2	6	5	6	7	2	7	11	0
I. LOANS AND ADVANCES, TRANSFERS	13	8	17	13	30	39	13	44	60	7	0	0
J. REAL PROPERTY	0	0	0	57	67	0	18	4	15	2	0	1
K. EQUIPMENT	0	8	0	5	0	79	1	2	7	0	0	1
L. OTHERS	37	27	3	1	1	2	2	23	0	1	1	0
1. 2% Budgetary Reserve	2	27	0	1	0	2	0	1	0	0	0	0
2. Others/surplus adjustment	34	0	3	0	0	0	2	22	0	1	1	0
TOTAL EXPENDITURES	228	811	434	304	256	297	167	297	360	125	171	201

Source of Basic Data: Bureau of Local Government Finance for 1987 Consolidated Budget Operations of Provincial Governments; 1985 Family Income and Expenditure Survey, National Statistics Office, for number of families by province.

TABLE 9
REGRESSION RESULTS USING 1987 PROVINCIAL BUDGET DATA

Independent Variable: Total Revenue

Dependent Variables	Constant	B	t	R ²
General Administration	8.63	0.187	2.597	0.40
Government Finance	-30.17	0.214	8.590	0.88
Adjudication	-1.50	0.018	6.750	0.82
Protective Service	9.15	0.074	0.570	0.03
Social Improvements	21.09	0.000	0.146	0.00
School Maintenance	14.91	-0.013	-0.720	0.05
Jail Maintenance	3.04	0.020	1.822	0.25
Provincial Library	0.73	-0.000	-0.333	0.01
Health Services	10.33	-0.006	-0.642	0.04
Social Welfare	1.00	-0.001	-0.587	0.03
Parks Beautification	1.42	-0.002	-1.137	0.11
Economic Development	-73.29	0.580	7.315	0.74
Prov. Agriculturist	8.63	-0.005	-0.684	0.04
Prov. Devt. Staff	-7.29	0.047	5.655	0.76
Prov. Engineer	-76.95	0.535	6.626	0.81
DLG/POPCOM	2.30	0.003	0.511	0.03
Real Property	18.42	-0.015	-0.355	0.01
Capital Equipment	7.87	0.003	0.061	0.00

What the seemingly conflicting results from the two sets of data suggest is that the provincial and sub-provincial (municipal and barangay) levels of local government behave differently. The regional data include the sub-provincial government units whose expenditure accounts may be very different from those of the provincial units in the regional aggregations. An earlier study on LGU spending patterns, for example, finds that on the average, almost half of municipal government spending goes to general government upkeep (Bahl and Schroeder 1983).

In any case, for purposes of the economic analysis, it would not seem unreasonable to consider the simple average of the results from the two sets of data described above in loosely distributing increases in local discretionary funds across the different expenditure categories. Thus, the values of

marginal propensities to spend that we shall assume are: (a) for general government, 0.20; (b) for public welfare and safety (or social development), 0.20; (c) for economic development, 0.35; (d) for other current expenditures, 0.20; and (e) for capital outlay, 0.05.

The third set of information that we have concerning the use of incremental funds is qualitative in nature. We visited the provincial capitals of Laguna and Davao, two of the five pilot provinces chosen by the Cabinet Action Committee on Decentralization, and interviewed local officials regarding their experience with the huge P120 million inflow of funds that they received from the national government.

This budgetary experiment with decentralization is not exactly ideal, as the inflows could easily be viewed as a heavy windfall, and spending behavior out of transitory income may be markedly different from that out of what may be perceived as permanent income (whether the economic unit be an individual or an institution). In any case, the two provinces had contrasting responses to the windfall.

Laguna spent most of the funds on road projects, most of them contracted out. P20 million was allocated to credit for livelihood projects. Both the Governor and the Provincial Development Officer pointed out that this was the province's opportunity to implement projects that would otherwise have had to wait for ten years.

Davao, on the other hand, decided on a more varied portfolio of infrastructure projects, including waterworks, solar dryers, schoolbuildings, and cold storage facilities, most of them by administration. Some P40 million was allocated to the purchase of construction and maintenance equipment (cranes, dumptrucks, payloaders, etc.). The Governor said that their province has enough roads, their problem lying in their inability to maintain them well, hence the need for the heavy equipment.

We are not here going to "evaluate" the judiciousness in the use of the funds by the two provinces, as that was far from our objective in the first place and it would seem to go against the very idea of local autonomy that the decentralization experiment was meant to foster. As elected officials, the local authorities are ultimately responsible to their own constituencies. What the contrasting experiences do show is that the economic needs of the people as perceived by the local leadership may vary widely across areas, so that national programs imposed from the top can easily lose touch with the specific problems at the bottom. In other words, the assumed marginal propensities to spend cited above are simply indicative averages around which much variance is likely to be observed.

Finally, with respect to the devolution of national line agency functions to the local governments, it would be safe to assume that LGU spending out of the transferred funds would follow the corresponding sectoral line agency sources. There is first of all a "mandatory" component for pre-defined national programs. But even with the discretionary component, an LGU would certainly not be allowed to divert the funds from the Department of Health to construct barangay roads or to pay teachers' salaries. Nevertheless, efficiency gains may still be expected from a reallocation of spending within each major sector that the devolution to local control would effect.

D. Estimating Unit Benefits--Some Micro Perspectives

Saving on Construction Costs

We have argued earlier that in the implementation of infrastructure projects, LGUs are likely to be more receptive than their national government counterparts to cost savings by way of using cheaper indigenous resources and more cost-effective techniques. We examined project feasibility studies across different categories submitted by LGUs to national funding agencies such as PREMIUMED and the Economic Support Fund (ESF) Secretariat, but in many cases such projects showed unit cost estimates that were higher than the DPWH guidelines. Upon hindsight, we could think of several reasons for this:

1. The DPWH unit cost guidelines are merely composite and indicative figures for budgetary purposes. Actual costs may differ from these figures depending on such location-specific factors as project terrain, right-of-way costs, etc.
2. Programs of work purportedly prepared by the LGUs are in reality subject to the review and approval of the national funding agencies. For instance, in 1984, while the ESF Elementary Schools and Local Roads Project required the LGUs to prepare their own programs of work, the submissions had to be reviewed by a Construction Management Consultant hired by the ESF Secretariat prior to further review by USAID. PREMIUMED also reviews all cost estimates prepared by beneficiary LGUs.
3. The LGU may "pad" the cost estimates in the program of work it submits in anticipation of possible cuts by the national funding agency, or in order to load whatever local equity requirements there are onto the expected loan or grant.
4. For nationally funded projects, the central funding agency tends to "overdesign" or impose relatively higher design standards for the administrative convenience of having fewer projects to monitor. The ESF Public Markets Project is one such example. It is indeed ironic that a cheaper, more economically sound project may not be funded because it fails to meet some minimum cost requirement.

We nevertheless pursued the matter during our visits to the two pilot provinces for decentralization, asking for programs of work for local projects, and we came up with many instances of locally prepared and implemented projects for which unit costs were lower than the DPWH guidelines. To mention some examples:

1. Barangay Road Construction--

In Davao, two barangay road projects cost the province P390,700 for 1.291 kilometers or P302,600 per kilometer, while the DPWH guideline is P500,000 per kilometer. Realized savings were P197,400 per kilometer or 39.5% over the national government cost.

2. Construction of Schoolbuildings--

In Davao, the Provincial Engineer's Office was constructing three elementary classrooms for the DPWH price of two. A three-classroom building cost the provincial government P205,000 to construct, while the DPWH guidelines are at P100,000 per classroom, hence savings of P31,667 per classroom or 31.7% over the national government cost.

3. Construction of Asphalt Roads--

In Laguna, the provincial government constructed a one-kilometer stretch of asphalt road for P694,000, as against the DPWH national guideline of P1 million per kilometer. While some items according to the program of work were costlier than the regional DPWH guidelines, the other more important items were much cheaper. Savings were P305,900 for one kilometer, or 30.6% over the national government cost.

4. Asphalt to Concrete Road Improvement--

In Laguna, the province spent P7.32 million on improving 5.04 kilometers of provincial road from asphalt to concrete. The cost per kilometer was P1.45 million, compared to the DPWH guideline of P1.8 million, saving P347,000 per kilometer, or 19.3% over the national government cost.

Civil engineers would shun such comparisons as not scientific and methodical; they would say that location-specific factors affecting costs have not been considered, or the projects completed may actually be "substandard." For the above cases, however, we were assured by the provincial officials that the projects followed DPWH standards. There were also of course instances where unit costs of locally implemented projects were higher than DPWH guidelines, but these were the cases where location-specific factors like slope and terrain raised costs above the guidelines which are for "ideal" conditions.

The issue of standards is also often used (and abused) by central agencies not only in project construction but also in other areas like health and education to defend and justify their own office's control or even just monitoring functions over the sub-national levels. Meanwhile, the countryside gets dotted with splendid structures that are underutilized while the more heavily used ones are left to deteriorate for lack of maintenance funds. The point of the examples is simply to illustrate the possibility that such cost-saving opportunities exist, and that they are made more possible when local governments perceive the funds as coming regularly and unattached.

Reducing Implementation Delays

Comparisons of relative performance of the pilot provinces for decentralization are inevitable, and it is often cited how "efficient" Laguna is in disbursing its block grant while it takes so long for Davao to do so. But our interviews with the local authorities showed that Davao's problem was not exactly "inefficiency" but more of the concentration of authority in the head offices of various national government agencies.

The initial approval of the projects that Davao submitted under the block grant did not run into any problems. However, the list was hurriedly drawn, as the province was given only two weeks to submit it (according to the Provincial Development Officer). The local officials then conducted popular and sectoral consultations for a revised list, which was certainly an economically productive form of postponement. But when the province sought approval for the realignment of its previously authorized projects, the Region XI office of the Department of the Budget and Management (DBM) sought further approval from the Department Secretary, and the process took several weeks to complete. It was only later on that the DBM's Regional Office was told that such realignments were a matter of course, that the whole idea behind the block grant was to decentralize decision-making.

Another problem with too much centralization that the province ran into was in the purchase of heavy equipment. Instead of sourcing the equipment locally, the province decided to import the equipment directly from Japan, to realize perceived cost savings of some P7 million with the direct import. The province, however, had to get an import permit from the Board of Investments, as imports of heavy equipment had not yet been liberalized. Even after the provincial authorities had secured the import license, some other government office would not accept a photocopy of the document and was insisting on the original, which was in the possession of the bank issuing the letter of credit. The equipment are thus not expected to arrive until the end of January 1990.

Delays like this can lead to serious losses in economic benefits from the projects for which the equipment are to be used. Consider a project with an initial investment cost of P100,000 over a normal gestation period of one year and with a 20-year operating life, during which it yields a constant flow of net benefits of P17,750 per year. This would mean a reasonable internal rate of return (IRR) of 17% and a net present value (NPV) of P11,100 at a social discount rate of 15%. If, for some reason, the project implementation gets delayed so that the timetable gets set back by a year, even without any initial disbursement on the first year, the NPV of the project already drops by 13% (or by P1,448) as a result of benefits not being realized one year sooner.

If the gestation period stretches to two years, and if 65% of project cost gets sunk on the first year, even without any real cost escalation, the IRR would drop to a marginal 15.2% and the NPV at 15% would fall dramatically to P1,180. If the fund disbursement on the first year amounted to 85% of initial cost, the project would not even be feasible ex ante, as its IRR would be only 14.8% and its NPV at 15% a negative P1,430. Avoiding the latter situation and implementing the project on time would be equivalent to a 12.5% saving in initial investment cost. Unfortunately, such delays are not uncommon, given the highly centralized system that policy measures on decentralization and local autonomy seek to reform.

Better Targeting of Beneficiaries

Another major source of economic efficiency gains with decentralization and local autonomy would lie in the more accurate targeting of beneficiaries, not only in local public infrastructure spending but also in the provision of general public services. One often hears stories of how relief or social

development funds coming from the national government for a given locality would get diverted by program implementors to some other area. The target beneficiaries themselves respond differently to local vis-a-vis national programs, where the latter are perceived as dole-outs.

Again picking up from our anecdotal experience with the pilot provinces, we observe a high repayment rate from the beneficiaries of the Kaunlaran sa Laguna (KSL) livelihood loan program, compared to nationally funded and implemented programs such as the defunct KKK or Masagana 99 programs. The Laguna provincial government in fact hired two retired officers of the PNB branch in Sta. Cruz to manage the funds that the province could keep and not have to return to some national office.

A local program that could reach 100 beneficiaries compared to a national program that could reach only 80 beneficiaries for the same total cost or, say, P100,000, is in effect saving P250 per beneficiary, or 20% of national government costs. Primary health care and school feeding programs are but a few examples of activities where more local government (and local community) participation would certainly help towards a better targeting of beneficiaries.

Enhanced Administrative and Regulatory Functions

Finally, with the regular administrative and regulatory functions of national line agencies devolved to the LGUs, the immediate efficiency gains may redound directly to the private sector. For example, on the matter of business registration, perhaps many participants of the "rurban" informal sector would come out from the "underground." Many microenterprises are informal with respect to national government agencies like the Bureau of Domestic Trade or the Bureau of Internal Revenue, but are formally registered with the municipal treasurer's office. One of the reasons for this situation may be psychological, as the national government agency may be manned by people of a different "culture," while everybody knows somebody at the local municipio. In the meanwhile, enterprises not registered with the national government agency lose out in terms of the benefits that registration brings about, such as easier access to formal sources of credit.

Other examples of how the devolution of administrative and regulatory functions to the local governments may lead to increased efficiency have been cited earlier, and the newspapers are full of stories of community efforts that are hampered by the lack of appropriate authority. In the monitoring and enforcement of natural resource conservation measures, the local communities are showing increased vigilance in protecting their forests from illegal loggers. The Department of the Environment and Natural Resources recognizes the importance of community action in this regard and has in fact deputized the LGUs (and NGOs as well) to help its field personnel in the enforcement of laws governing environmental protection and natural resource conservation. Similar situations exist in the transport sector, where national agencies permit the operation of vehicles exceeding axle limits, while the local governments are not allowed to impose surcharges for the higher road maintenance costs brought about by the passage of such vehicles. Most benefits of this type that go with increased decentralization, however, are difficult to quantify and value in monetary terms.

E. Measuring Aggregate Economic Benefits

We are now in a position to impute the economic value of the efficiency gains accruing to the three major decentralization and local autonomy reform measures discussed earlier. Our estimates, presented in Table 10, will focus on the regions outside NCR, not only for conservatism but also to emphasize the equity aspect that major benefits would accrue to the areas outside the center.

With respect to the regionalization of the infrastructure fund, Table 4 has shown that for 1990, the first year of program implementation, there would be a transfer of control over P3,505 million worth of infrastructure funds to the municipalities and provinces (case A), or P7,668 million including the regional development councils (case B), away from the national government. If even only half of these funds would be subject to as little as 10% cost savings of the type described earlier, that would mean efficiency benefits of P175.25 million (case A) to P383.4 million (case B), just for the first year.

Similarly, if half the projects covered by the transferred funds would avoid costly delays, and if the delayed projects shall have had as much as 65% initial commitment of funds, the gain in net present value (at a 15% discount rate) with the avoidance of delays could amount to as much as P9,900 for every P100,000 worth of initial investment, as the example given earlier shows. In the aggregate, the benefits would range from P173.50 million (for case A) to P379.57 million (for case B).

The NIPA would bring in new money, of which some 40% would likely be spent on general public services (20% on general government and 20% on social development) and some 35% would be spent on local infrastructure, as discussed earlier. The rest would go to other current expenditures (20%) and other capital outlay (5%). For the amount spent on general public services, we could conservatively follow the approach in national income accounting of valuing such services at cost, in which case the benefits would just cover the costs. For the expected incremental spending on infrastructure of 35% of the P5,605 million (or P1,961.75 million), the projects could easily yield an IRR of 20% on the average, even if the LGUs do not engage in formal cost-benefit analysis, given the thrust towards cost-saving and better targeting of beneficiaries. At this IRR and at a 15% social discount rate, a short-lived project with, say, a one-year gestation period and a steady stream of benefits over a five-year operating life would yield an NPV equal to 12% of the initial investment. For the amount going to new infrastructure projects, therefore, the NPV at the 15% social discount rate would reach P235.41 million.

Finally, the devolution of line agency powers to the LGUs would conservatively involve the transfer to local (non-NCR) control of P4,607 million (or 20% of P23,035 million) worth of national government funds. If the local governments could reach even just 5% more beneficiaries than the national government agencies, this would effectively mean about a 5% cost-saving on the transferred funds per year, or P230.35 million.

Thus, even with highly conservative assumptions on the flow of benefits with decentralization, the monetized valuation of economic efficiency gains could range from P814.51 million to P1,228.73 million just on the first year

TABLE 10
SUMMARY OF FIRST-YEAR PROGRAM BENEFITS
WITH DECENTRALIZATION
(In million pesos)

	Case A	Case B
A. With regionalization of infrastructure budget		
-- Saving on construction cost	175.25	383.40
-- Reduced implementation delays	173.50	379.57
B. With new money from NIRA		
-- NPV of new infra projects		235.41
C. With devolution of powers from national line agencies		
-- better targeting of beneficiaries		230.35

TOTAL	814.51	1,228.73

Note: See text for assumptions.

(Table 10). These benefits even exclude the direct private sector gains with increased efficiency in the conduct of regular administrative and regulatory functions that would be devolved to the LGUs. These benefits are likely not just to be sustained but even to grow over time, as LGUs gain more experience in project development and general administration, and as the national government releases more and more control over national programs to them.

F. The Economic Costs of the Policy Reforms

Decentralization will of course entail some initial and recurrent costs. Finance Undersecretary Katigbak sees the need for "a Central Support Staff for a national-level inter-agency group that will formulate the implementing rules and supervise the implementation among the local government units" and estimates an annual budget of P6.61 million for the two years of life of this organization (Katigbak 1989).

Of a bigger magnitude would be the incremental outlays for local-level capability building in such aspects as financial management and capital budgeting as well as project planning and implementation. This aspect is

stressed by practically all studies on decentralization (see, for example, Rondinelli and Wilson 1987; Hubbell et al. 1989; World Bank 1989). For the Philippines with its 73 provinces, 1,531 municipalities, and 60 chartered cities, the training needs may seem enormous at first glance. However, training programs for local executives have been conducted extensively since the 1970s (such as under the USAID-funded Provincial Development Assistance Program and Local Assistance Development Program), and it is reassuring to note that many participants in these programs still work with the local government units, with some even assuming positions of high responsibility (Dawson 1986).

It should also be pointed out that devolution would involve the transfer of personnel as well as functions, so that the need for trained new personnel is minimized. If situations should arise where an LGU finds itself short of trained manpower, jobs could be contracted out to the private sector.

Given the huge magnitude of potential economic benefits that could be realized with decentralization and local autonomy, any estimate of the direct costs of the program would be dwarfed by comparison. Suppose that the training cost were P20,000 per participant (including the opportunity cost of time spent in training). If the 1,665 local government units (provinces, municipalities, and cities) should send 10 participants each, the total training cost under these generous assumptions would amount to only P333 million, or 40% of the low estimate of first-year benefits expected with the program. As argued above, however, training needs are not likely to reach this magnitude, and these are human capital investments that have to be amortized over the years of expected service of the trainees.

There are, however, attendant risks to a decentralization program which the proponents of centralization are quick to point out (World Bank 1989). First, it is argued that a decentralized system may be more inequitable, as richer areas would be able to raise more taxes and revenues and would therefore be able to afford better levels of services and facilities. The program of decentralization discussed above, however, allows much leeway for "corrective" transfers by the national government to the poorer regions, as the design of the regionalization of the infrastructure budget would illustrate.

A second argument is that accountability might be weakened with decentralization, as locally elected officials would more easily succumb to pressures from local vested interests. These vested interests need not be the local elite; they may very well be disadvantaged groups vying for scarce local funds. But this issue becomes less and less of a problem as more and more resources become available at the local level. The regular electoral process also helps to minimize this kind of risk. The need for public vigilance should nevertheless be stressed.

Others would also argue that decentralization could cause more delays in the design and implementation of programs. To quote one centralization proponent, "The democratic process is time consuming and expensive. For example, to build a road, professionals might design a plan and be ready to go ahead on it in three weeks. But when you work through the democratic process, politicians receive the plan and want to consult with their electorate. And they might take a year before they agree on what action to take" (World Bank 1989). The person quoted goes on to say that "The process is inefficient, but it has

a different purpose and this is the price of democracy." The fallacy of this argument for the Philippine case is of course borne out by the inefficiencies that two decades under a highly centralized system generated. Decisions were quick on major projects for which implementors could skim off substantial amounts of "commission," but painfully slow for small, ordinary day-to-day matters of government that had to grind through several layers of a highly centralized bureaucracy.

With the countervailing forces present in a democratic society that help to reduce the risks attendant to a decentralization program, the "drag" on the economy is not likely to erode the efficiency gains significantly. Given the magnitude of the benefits expected with the program, even if the efficiency gains were to be pulled down by, say, 20% because of such factors, the implementation of the policy reform measures discussed above would still be worthwhile from the economy's viewpoint.

G. A Minimum-Benefit or Break-Even Analysis

Suppose the \$50 million LDAP fund were viewed as "buying" a policy reform package on decentralization, the economic returns to which would last only over a five-year span beginning in 1990. It may be asked how much would be the minimum annual flow of benefits with the program that would make the "purchase" worthwhile. The "break-even" analysis discussed below assumes the \$50 million to be disbursed in two equal annual installments, with the official exchange rate at P22.50/\$1, the shadow exchange rate at 1.2 times the official rate, and the social opportunity cost of capital at 15% per year.

With these assumptions, the present value of program "costs" would be \$46.74 million, or P1,261.96 million at the shadow exchange rate. Over a five-year life, the equivalent annual flow of costs at a 15% discount rate would then be P327.36 million per year, beginning in 1990. Meanwhile, the local component of program support has been liberally estimated earlier at P6.61 million per year over two years for a national secretariat to oversee the implementation of the program, and some P333 million for local-level capability building. If, say, the average trainee would stay in office for five years beginning in 1990, the present value of the costs of program support would be P345.36 million, the equivalent annual flow of which would be P89.59 million at a 15% discount rate. The LDAP, therefore, would have to generate gross benefits of P416.95 million per year to "break even" or to earn a 15% economic internal rate of return.

The results of the economic cost-benefit analysis have shown that the first-year returns alone in terms of benefits to the regions outside NCR may amount to P814.51 million (Table 10), and that these benefits are not only sustainable but even expected to increase over time. Thus, even if the \$50 million were to be considered as part of program "costs," the net present value of the program would still be substantial.

It has been observed, however, that the scenario used in our economic cost-benefit analysis was rather optimistic with respect to the new money coming from the proposed NIRA bill (which was in fact not passed in 1989). But even without any new money going to the regions, the regionalization of

the infrastructure budget and the devolution of other national line agency functions to the LGUs would by themselves generate annual benefits worth P579.10 million, which would already be higher than the equivalent annual program costs of P416.95 million.

It may also be argued that the regionalization of the infrastructure budget need not be tied to program assistance (even if the benefits with this measure are substantial), as the momentum for this policy has been there for the past several years; in other words, this measure would have been put in place anyway even without program assistance. (The same cannot be said of the devolution of other line agency functions, which has met some resistance from the central offices.) Without any new money from the much-delayed NIRA bill, the annual benefits that could be "bought" would then be only P230.35 million worth of annual benefits with the devolution of other line agency functions (taking note, however, that this is a conservative estimate).

How much, then, would be the amount of new money under local government control that is needed to flow into the regions so that overall program costs would be recovered? Such new money should be able to generate P186.60 million of benefits per year (or P416.95 million less P230.35 million). From the economic analysis presented earlier, under certain assumptions concerning the local government's marginal propensities to spend, out of every peso of new money to the LGU, 35 centavos would go to "economic development" expenditures which could earn an NPV of 4.2 centavos at a 15% social discount rate. The annual flow of new money that would have to be "bought" by the program to bring in P186.60 million of benefits is P4,442.86 million, if the regionalization of the infrastructure budget is to be considered as forthcoming anyway and if the devolution of other line agency functions is to be included in the package. (But again it should be noted that this is based on the conservative assumption that benefits from spending on the other categories are just enough to cover the costs, following the convention in the construction of national income accounts.)

What are the prospects of such new money being made available to the LGUs in the absence of NIRA? The only significant provision in the proposed NIRA bill which was embodied in the General Appropriations Act for 1990 was the removal of the mandatory contributions for the Integrated National Police and hospital care. In terms of new money, this would involve P1,273.32 million (based on estimates of the team contracted by USAID for the policy analysis), which falls short of the "break-even" level. This amount, moreover, could be eaten up by the increase in the personal services component of the LGU budget brought about by the recent salary standardization law. The Department of the Budget and Management does not yet have an estimate of how much the salary standardization would cost the local governments, but the Hubbell et al. (1989) study places expenditures on personal services at 54.6% of total LGU expenditures for 1988, using a small sample of provincial and city governments. If the standardization should raise salaries of LGU personnel by as much as 15% (which was the Davao governor's estimate for his province), the financial drain would be P839.31 million, based on projected 1989 expenditures of P10,248 million for regions excluding NCR as reported in the Memorandum. About two-thirds of the new money released with the removal of the mandatory contributions would thus be eaten up by the increase in the personal services budget.

What other policy reform measures could then be included in the program? For 1990, perhaps a system of block grants similar to but more extensive than the one used in the pilot decentralization program could be put in place with the funds coming from the Office of the President's discretionary funds. The system, however, should avoid giving the impression to the LGUs that the block grants are transitory, as this might distort LGU spending behavior. Meanwhile, for 1991, there would still be much lead time to push for the passage of the NIRA bill. In this event, if NIRA funds flowing from 1991 onwards would amount to the P5,605 million per year (net of the salary standardization) as initially projected in the Memorandum, the gross level of new money to the non-NCR regions needed for 1990 to make the program "break even" at a 15% discount rate over a five-year operating life is P1,124.98 million. If we subtract the P434.01 million of net new funds already forthcoming in 1990 (from the removal of mandatory contributions less salary standardization allowance), the net new money to be tied to the program for 1990 would be P690.97 million.

As a final remark, one should be reminded once again that the peso benefits presented in the economic analysis given above are minimum orders of estimate and offer but a bland expression of the gains that are expected to go to the local populace in terms of higher incomes and improved welfare. The ultimate beneficiaries of decentralization and local autonomy are the rural poor, as the delivery of basic services is enhanced and the development and maintenance of local infrastructure are hastened and made more efficient and more effective.

VI. ASSESSING THE PROGRAM'S ECONOMIC IMPACT

A. The Evaluation Framework

The goals of a program of reforms toward decentralization and local autonomy are the enhanced delivery of basic public services and more efficient provision of local infrastructures, and the expected program impact is in terms of higher incomes and improved rural welfare in general. But vital to the process of implementation of such a program is the capability to monitor and evaluate the program's immediate output, intermediate effects, and ultimate impact.

The macro-level policy reform measures that would be put in place with the program (in the present context, specific national government actions like the regionalization of the infrastructure budget, increased internal revenue allotments, and the devolution of national line agency functions to the LGUs) may be thought of as constituting the program inputs. In the case of development assistance being tied to the policy reform program, the release of funds is often conditional on the implementation of these measures within a certain timetable (Hermann 1986). Defining indicators of performance for program compliance, however, is outside the terms of reference of this present study and falls instead within the scope of policy analysis.

The immediate output of the program would be the beneficial changes expected to occur at the local level, such as increased control by local governments over the sources and uses of funds. The intermediate effects would then come by way of more cost-effective programs and an expansion in the delivery of basic public services and the provision of local infrastructures.

Our ultimate interest is of course in evaluating the final economic impact of the program on the intended beneficiaries. However, monitoring the immediate output and intermediate effects would be necessary in assessing whether any observed change (or lack of it) in the indicators of welfare of the target population are in fact attributable to the program. In other words, we should see to it that a "with-and-without" approach rather than a "before-and-after" approach is followed in the evaluation design. A given area may show much improvement after the program has been put in place, but the improvement may have been due to factors other than the program itself.

It is then within this evaluation framework that a system of indicators for monitoring program output, effects, and impact is suggested in the section that follows. A third section presents the methodology for implementing the evaluation design, including the collection of secondary data and the undertaking of sample surveys. A final section discusses the definition of benchmarks against which the measured values of the indicators shall be assessed.

B. Towards a System of Economic Indicators

Monitoring Program Output

The immediate output of the policy reform program may be viewed as the instant and obvious signs of decentralization as perceived at the local level.

These output dimensions are the leading and essential guideposts of increased local autonomy, revolving around two main features of LGU operations, namely, local public finance and local decision-making powers and regulatory authority.

With decentralization, the extent of local government control over the sources and uses of funds is expected to expand. As discussed earlier, the policy reforms in this area involve the removal of mandatory contributions and the provision of revenue-sharing incentives for increased local resource mobilization. At the same time, new money would come in and funds from national line agencies would be diverted to the local governments.

Several indicators for monitoring these output dimensions may be constructed. For local public finance, control over uses follows from control over sources, so that we need to focus only on the latter. The indicators we propose are:

- (01) the total discretionary funds per capita available to the LGU;
- (02) revenue per capita generated from local sources; and
- (03) the ratio of revenue from local sources to local family incomes.

The first indicator covers revenue from all sources, including unrestricted allotments from the national government; it measures the amount of public resources at the disposal of the LGU. The second measure focuses on the extent of local resource mobilization, which revenue-sharing incentives under the NIRA bill are supposed to promote. Both are expressed in pesos per capita to control for differences in population base. The third indicator is a measure of local revenue effort using total family income rather than population as a measure of the tax base.

For monitoring the degree of devolution of administrative and regulatory functions of national line agencies to the local governments, the operational measures we suggest are:

- (04) the proportion of discretionary funds transferred to the LGUs from the regional budgets of line departments; and
- (05) the proportion of discretionary funds transferred to the LGUs from the total budgets of line departments.

A line agency may score highly on (04), but if the regional share in its total budget is low to begin with, this will be reflected in a low ratio under (05).

Measuring Program Effects

In line with the framework for the economic cost-benefit analysis, we suggest several measures of program effects that are meant to match the identified sources of possible gains in economic efficiency with decentralization.

First, with respect to the expected saving on construction and maintenance costs, we suggest the monitoring of:

(E1) the ratio of unit construction and maintenance costs of activities implemented by local governments over those implemented by national government agencies.

As this is inherently a difficult task, the project categories should be limited to the major expenditure items for which design standards do not vary much across projects, like road maintenance and construction, health facilities, and schoolbuildings.

Reduced implementation delays may be monitored by way of looking at:

(E2) the ratio of number of days to complete locally implemented projects to the number of days to complete nationally implemented projects.

For simplicity and cost-effectiveness in the measurement of this indicator, the projects to be covered should be the same as the ones in (E1) above.

The third aspect of program benefits which the economic analysis tried to quantify is the net present value of returns from additional spending on local "economic development" that new money to the LGUs would generate. To the extent that funds are fungible, it would be neither wise nor feasible to distinguish between expenditures out of new money (from new internal revenue allocations) and expenditures out of diverted money (from the infrastructure fund and from the funds devolved by national line agencies). Nevertheless, it would be informative to monitor:

(E3) the ratio of the increase in expenditures on "economic development" to the increase in total revenues of the LGUs.

While there is no a priori basis to presume that expenditures on economic development are more productive than expenditures on general public services or social development, it is generally felt that in the Philippine case, there has been an underinvestment in local public infrastructures that has to be corrected at least in the medium term. Whether the funds are new money or diverted money, they are certainly welcome.

The devolution of national line agency functions to the LGUs is expected to lead to a better targeting of beneficiaries, for which our proposed indicator is:

(E4) the ratio of the number of beneficiaries reached by LGUs to the number of beneficiaries reached by national government agencies for the same amount spent on the same expenditure category.

The relevant expenditure categories for this indicator could follow the ones used at present by the national line agencies in their performance target setting and monitoring. For example, the Department of the Environment and Natural Resources has "families benefited by the Integrated Social Forestry Program"; the Department of Agriculture has "farm families trained on farming and fishing technologies"; the Department of Health has "in-patient days" and "out-patient visits." These measures would be divided by the amounts spent on these programs and compared to similar measures computed for activities devolved to the LGUs.

The quality of services and infrastructures provided would matter as much as quantity from the beneficiaries' viewpoint. Quality may be measured from the perspective of the beneficiaries themselves, so that it would be useful to monitor:

- (E5) the ratio of the percentage of beneficiaries satisfied with services and infrastructures provided by LGUs to the percentage of beneficiaries satisfied with similar services and infrastructures provided by national agencies.

Assessing Program Impact

It has been stressed earlier that the ultimate reflection of program impact would be a broadly based countryside development in terms of expanded employment opportunities, higher incomes, and improved rural welfare in general. The social indicators literature is replete with suggestions on measures of different dimensions of final welfare, and the Philippines has had extensive experience with the monitoring of such indicators since the 1970s (see, for example, Mangahas 1976). The USAID itself has funded the Economic and Social Impact Analysis/Women in Development (ESIA/WID) Project which looked into how public sector projects affected the different areas of welfare concern.

So as not to overburden the indicators system, we suggest impact measures for only a few dimensions:

- (I1) unemployment and underemployment rates, by sex, age, and location of residence (urban and rural);
- (I2) mean family income by location residence, family size, and source of income;
- (I3) ratio of mean family income in the highest quintile to mean family income in the lowest quintile;
- (I4) elementary and high school participation rates by family income class and by location of residence;
- (I5) health status as measured by caloric intake, by sex, age, and location of residence; and
- (I6) the percentage of families rating themselves as poor, by location of residence.

The first three indicators reflect economic dimensions, with the third focusing on equity in the distribution of program benefits. The fourth and fifth indicators address learning and health as social concerns, while the last is an overall measure of people's own perceptions of their welfare. It should be noted that this list is tentative; more finely tuned indicators of final welfare (in learning and health, for example) may be developed as a more detailed scope of work is prepared for the design and development of the evaluation system.

C. The Evaluation Methodology

General Considerations

Evaluating the impact of decentralization requires strongly coordinated and multidisciplinary efforts over an extended period of time. The aim is to determine whether the expected output and effects of decentralization are having the desired impact on the specified areas of concern. Ideally, this means monitoring the values of selected indicators before decentralization, during its implementation, and after it has been in place, allowing enough time for long-term impact to be felt.

Several approaches to impact analysis are discussed in the literature (Albuero 1980; de Guzman 1987). The frequently suggested approach is to identify equivalent experimental-control observation units and to select indicators of expected impact. After implementation, differences in values between indicators of the experimental unit, which experienced the effects of implementation, and those of the control unit, which ideally is isolated from these effects, are attributed to the program. The difficulty with this approach is in properly randomizing and selecting a pair of equivalent experimental-control units.

For the LDAP, the impact evaluation is preferably done at the provincial level. The primary consideration in designing the evaluation methodology is simplicity of execution. It is far more desirable to be able to have frequent and rapid evaluations using simple procedures and low-skilled staff, than to rely on sophisticated procedures requiring experts who may not be easily available at this level.

Because decentralization is expected to proceed at an uneven pace across provinces, it will be possible to rank provinces according to degree of decentralization attained as measured by the previously identified output indicators. High-ranking provinces (experimental) are paired with low-ranking (control) provinces having similar socioeconomic profiles.

In case of difficulties in selecting equivalent provinces for pairing as experimental-control, counterfactual analysis is suggested as an alternative approach. This approach involves building a counterfactual scenario for an experimental province, using trend values derived from baseline data for the scenario. This scenario serves as a surrogate of the control province.

In both cases, hypothesized impact and underlying relationships can be tested using several experimental provinces (i.e. pilot provinces) as observations. Essentially, the procedure involves testing whether there are significant differences between experimental indicator values and control indicator values. The perceived differences can be attributed to program implementation.

Measurements of selected effect and impact indicators are made before or at the start of program implementation to establish baseline data. Possibly problematic is the generation of trend values. This may depend in part on subjective inputs from LGU operations staff. Whenever applicable, however, statistical techniques are to be used to estimate trend lines.

Using simplified procedures, it becomes feasible to monitor regularly the immediate output, intermediate effects, and long-term impact, and to use the results to refute or confirm the hypothesized relationships. Because it is sometimes difficult to decide when a program has finally "matured," and therefore ripe for impact evaluation, the testing of the hypothesized relationships can be an important supporting task. Confidence in the final impact evaluation will either increase or decrease depending on how well the hypothesized relationships hold up in the face of accumulated empirical evidence.

Specific Methodological Notes

The five program output measures discussed earlier can be generated from the regular reporting system of local government units (municipalities and provinces) to the Department of Finance and the Department of the Budget and Management. Some revision of the Budget Operations Statement, however, may be needed to ensure that "discretionary" funds are easily identified. The agency that can perform the review is the Bureau of Local Government Finance of the Department of Finance, to which the local governments submit the forms annually. Population data for the municipalities, cities, and provinces can be secured from the National Statistics Office (NSO). Total family incomes by area can be based on the Family Income and Expenditures Survey of the NSO, the latest of which is for 1988.

The measures can be reported for each province and chartered city, but only for a sample of the 1,531 municipalities. One province from each of the quintiles based on a ranking of the provinces by output measure O1 can be selected, and the sample of municipalities would be all those within the chosen provinces. With an average of 21 municipalities per province, we therefore shall have 105 municipalities to be covered in the program output reporting system. The work would of course be greatly facilitated if a computerized database system would be installed (see Appendix A).

For the program effects, which can be monitored annually, two provinces and one chartered city from each of the quintiles (constructed as suggested above) can be selected (including the five provinces previously identified for the output measures). In addition to the 10 provinces and five cities, it would help to include two municipalities from each of the 10 provinces. To avoid tampering of the data, perhaps the NEDA regional offices covering the sample LGUs can be designated to perform the review.

Assessing program impact requires the conduct of primary household surveys to generate the baseline ("without program") and the "with program" situation data. The "with program" survey can be undertaken every three years, as household surveys are relatively costly. The sample households should be so drawn as to ensure enough variation in the degree of decentralization and local autonomy (as measured by the output indicators) for the localities from which they come. The same set of households covered by the baseline survey should be included in the "with program" surveys so that panel data can be generated for better impact analysis. Some 100 households each from 30 municipalities and cities can be chosen for a total sample size of 3,000 households. A private social research group can be contracted for the survey. An indicative costing of the survey requirements is given in Appendix B, based on a nationwide rural household survey conducted by a private group in 1989. Table 11 summarizes the scope and frequency of the monitoring efforts.

TABLE 11
SUGGESTED SCOPE AND FREQUENCY OF MONITORING AND EVALUATION

	Program Output	Program Effects	Program Impact
No. of Provinces	a 73	d 10	
No. of Municipalities	b 105	e 20	
No. of Cities	c 60	f 5	
No. of Households			g 3,000
Frequency	Annual	Annual	Every 3 Years

Notes:

- a. All provinces
- b. Provinces are ranked and grouped into quintiles based on the values of output indicator O1. One province from each quintile is selected (total of 5 provinces) and from each of these provinces, 21 municipalities are selected (total of 105 municipalities).
- c. All chartered cities.
- d. Five additional provinces, one from each quintile, are selected (total of 10 provinces from the quintiles).
- e. From each of the ten provinces from the quintiles, two municipalities are selected (total of 20 municipalities).
- f. One chartered city is selected from each quintile (total of 5 chartered cities).
- g. Thirty municipalities and chartered cities are selected, and from each of these, 100 households are selected (total of 3,000 households).

D. Defining Appropriate Benchmarks

The program output measures are all expressed in positive terms, so that increases in the values of the indicators would represent an improvement in the degree of local autonomy for the LGUs being monitored. No specific target benchmarks need be indicated for these measures.

Low initial values for the first two indicators of program effects and high initial values for the last two would mean higher levels of efficiency for the LGUs relative to the national agency concerned. With the way these indicators are defined, the denominators (dealing with national agency performance) serve as the benchmark. However, over time, the ratios may converge to unity, as increased efficiency may be gained by national agencies with pressure from the LGU. It is thus advisable to consider the numerators (dealing with local government performance) separately as well, and improvement would be reflected in reductions for the first two (unit construction and maintenance costs and number of days to complete a given project) and increases for the last two (number of beneficiaries reached per, say, P100,000 worth of spending and percentage of beneficiaries satisfied).

For the impact measures, the benchmark figures could be the national averages with their corresponding disaggregation (e.g., for the unemployment and underemployment rates, by sex, age, and urban or rural residence). But what is more important with the impact analysis is the application of multivariate regression techniques, with the impact measures as the dependent variables and the degree of local autonomy of the locality (as measured by the output indicators) as among the independent variables. The magnitude and statistical significance of the coefficient of the local autonomy variable would indicate whether the program has indeed made a dent on the welfare of the population, after other factors have been taken into account.

The program assessment, of course, should go beyond a simple mechanical listing of the values of the indicators over time. The indicators simply tell us what has transpired, they do not tell us why the values moved in a particular directions. To some extent, the multivariate framework will help explain some of the observed differences in impact measures across the population. But in many cases, the evaluation will have to rely as well on interviews of people from the institutions involved with the program--the local governments, the national government agencies, and perhaps non-governmental organizations.

VII. OVERALL ASSESSMENT AND RECOMMENDATIONS

The economic cost-benefit analysis of a program of reforms leading to increased decentralization and local autonomy has shown that the returns to such a program may indeed be substantial. Even with highly conservative assumptions on the flow of benefits with decentralization, the monetized valuation of economic efficiency gains could range from P815 million to P1,229 million just on the first year of implementation. On the other hand, even with very liberal assumptions, the direct costs of the program in the form of training expenditures on local government officials and including the operating costs of a secretariat that would oversee the implementation of the program are only about P340 million per year. The net gains are therefore very substantial.

It is nevertheless observed that much resistance on the part of national government officials, from both the legislative and the executive branches, is met when it comes to the initiation of reforms toward increased local autonomy. Political concerns seem to gain precedence over economic objectives. But it is then precisely in situations like this that policy reform measures tied to official development assistance become potentially most effective.

In case the Local Development Assistance Program does push through in whatever mode, it is recommended that a monitoring and evaluation system along the lines suggested in Part VI of this study be put in place side-by-side with the program, for contending political forces are apt to raise arguments that would becloud the issue. If, in the course of program implementation, pieces of evidence on gains in economic efficiency could be cited, then perhaps there would be more unanimity on the appreciation of the economic merits of decentralization and local autonomy.

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APPENDIX A IMPLEMENTING THE LDAP EVALUATION SYSTEM

The key determinant of success of any evaluation system is availability of data. The choice of indicators proposed in this study was based to some extent on the availability of "general purpose" data or data generated automatically during regular operations of the LGUs. The need for "special purpose" data, generated from custom-designed procedures, was deliberately kept to a minimum.

Although data are natural "by-products" of administrative operations, they are not always available to the right person at the right time for the right purpose. Data, as a resource, have to be managed, and the most effective management tool is the database (facility for logical and physical integration of data, preferably using a computer).

It is suggested therefore that a conscious and deliberate effort to implement databases to support LGU operations be made an integral part of LDAP implementation. These databases will serve a dual purpose: improve the data management capabilities of LGUs and at the same time support impact evaluation studies.

To support impact evaluation, the following databases are suggested for implementation. They can be maintained in manual form or they can use existing microcomputers of the LGUs. If the databases are computerized, then software can be developed to perform automatically the construction of the indicators. The same software can be replicated and used in different locations at the same time to speed up the process and ensure standard procedures across locations.

(a) Budget Operations Database

Revenue, expenditure, and other related financial data, by municipality, city, and province. The basic source document is the Budget Operations Statement submitted to the Bureau of Local Government Finance of the Department of Finance. Databases will be implemented at the LGU level and integrated with the database at the province level.

(b) Population Database

Provincial population distribution, by municipality/city, age group, and sex. Database will be implemented at the province level.

(c) Family Income and Expenditures Database

Selected periodic data on family income and expenditures from provincial samples of the NSO Family Income and Expenditures Survey. Database will be implemented at the province level.

(d) Project Monitoring Database

Budget disbursement and other implementation data from selected municipal/city and provincial projects, and from selected national line

agency projects considered local in incidence. Databases will be implemented at the municipality/city level and integrated with the database at the province level.

(e) Target Beneficiaries Monitoring Database

Opinion data from a small sample of service-specific and facility-specific beneficiaries, by municipality/city, and provider of service of facility (local versus national). Opinion surveys can be conducted yearly by the NEDA Regional Offices or by impartial NGOs. The data serve as feedback on preferences and level of satisfaction of beneficiaries. The costs of these surveys can be embedded in the service/facility operations and maintenance expenditures. Database will be implemented at the NRO or NGO level.

(f) Household Panel Survey Database

Survey data on employment, income, education, and health status from a fixed sample of households. The same households will be interviewed before LDAP implementation and every three years thereafter. Indicative cost estimates of survey field work, data processing, and analysis are given in Appendix B. Database will be implemented at an independent social research institution.

Each of these databases has a single, well-defined subject matter to simplify collection, organization, and maintenance of data. Each one, however, can support multiple areas of operations. These databases can be implemented using microcomputer hardware and software, and can be designed to be user-friendly and convenient for day-to-day use by non-technical municipal government staff. Table 4.1 shows how the indicators fit into the databases.

The usefulness of the databases is enhanced by their inherent potential for upward integration, meaning the ease of aggregating data to the provincial, regional, and national levels. This is particularly important, if the aim is to make national policies more attuned to local needs by providing easily available disaggregated data.

Equally important is the capability of databases to handle horizontal integration across time. Consistently defined, and therefore comparable, data can be stored for successive time periods. For this reason, monitoring and evaluation data ideally are stored cumulatively in database systems.

Although database systems provide obviously useful functions, designing and building them require highly technical expertise. This expertise may not be easily available at present at the municipal level, where they are needed the most. To ease the initial burden, it might be preferable to provide the municipal governments with turn-key database systems implemented in computers with appropriate software. Distributing standard database software packages will promote standardization of procedures for municipal administrative functions and will facilitate the gathering and managing of data for the indicators needed for program monitoring and evaluation.

TABLE A.1
SOURCES OF DATA

		DATABASES					
		A	B	C	D	E	F
INDICATORS							
<u>Program Output</u>							
	O1	X	X				
	O2	X	X				
	O3	X		X			
	O4	X					
	O5	X					
<u>Program Effects</u>							
	E1				X		
	E2				X		
	E3	X					
	E4					X	
	E5					X	
<u>Program Impact</u>							
	I1						X
	I2						X
	I3						X
	I4						X
	I5						X
	I6						X

A = Budget Operations Database
 B = Population Database
 C = Family Income and Expenditure Survey Database
 D = Project Monitoring and Evaluation Database
 E = Target Beneficiaries Monitoring Database
 F = Household Panel Survey Database

APPENDIX B
INDICATIVE COSTS OF A NATIONWIDE HOUSEHOLD SURVEY

People are often wary of conducting household surveys, especially on a nationwide basis, because of the perception that such surveys can be very costly. A nationwide survey can indeed be expensive, if local resources (from the identified survey sites) are not availed of. Sending interviewers to the provinces and having them stay there over an extended period would cost a lot of money. Over the past several years, however, well-trained field personnel from the regions (interviewers, supervisors, even social scientists) have grown in number so that the real cost of conducting field work has fallen. Research organizations in the regions abound, with sufficient computation facilities and software to handle data entry into diskettes. There is, for example, the Philippine Social Science Council (PSSC) Network, as well as private survey groups with extensive regional networks.

The costing given below is based on a nationwide survey of rural 3,900 households conducted in 1989 covering 13 regions with 300 respondents per region. The objective of the survey was "to develop and demonstrate a system capable of monitoring the impact of the agrarian reform program on the welfare of agrarian reform beneficiaries in particular, as well as on the rural sector in general." A private group, Manila-based but with a regional network, was commissioned to do the field work.

The average interview time was 1.5 hours (typical of a household survey), with 160 questions asked of the respondent. The major topics covered were: (a) poverty and levels of income; (b) count of household members; (c) spending participation of household workers; (d) agricultural land owned; (e) labor force status; (f) land reform status; (g) gainers/losers; (h) health issues; (i) utilities issues; and (j) public safety.

The survey budget was as follows:

	Pesos -----	Percent -----
Pre-Test	1,000	0.09
Training of Field Interviewers	26,040	2.25
Field Work	477,530	41.21
Editing/encoding	70,280	6.07
Tabulation Proper	39,520	3.41
Supplies, Materials, Printing	60,000	5.18
Executive Time	78,000	6.73
Sub-total	752,370	64.94
Support and Administrative Services	300,948	25.97
Contingency	105,332	9.09
TOTAL	1,158,650 =====	100.00 =====

The cost of the field work for the survey was less than P300 per respondent. The output included computer print-outs of marginal frequencies for each of the 160 questions, plus diskettes containing the data files on the respondents, in a database format and software that the user could specify. Several cost items may have risen since this survey was contracted, but even with a 20% allowance, the cost per interview would still be reasonable and much lower than similar surveys conducted 10 years ago.

The output of the field work is of course still in very raw form. The efficient analysis of the data of this size would need an IBM PC/AT or an equivalent computer. Some 60 man-days of research time by qualified social scientists would be needed for the impact analysis. If the output and effects indicators are analyzed as well, the manpower requirements may reach 100 man-days. The total cost may reach P1.6 million. To maximize the benefits from the survey and the monitoring databases, the files can be made available for free to other interested users.