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**Building Statistical Capacities for
Improving the Measurement and Monitoring
of Development and Aid Effectiveness
in ADB's Developing Member Countries**

by

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ADB's MISSION

1. The Asian Development Bank (ADB) was established in 1966 with the specific purpose of promoting the economic development of the region. As such, ADB has always been concerned with poverty reduction. In 1999, however, with the adoption of its *Poverty Reduction Strategy*, ADB embarked on a major and challenging new development agenda. Traditionally centered on infrastructure projects, ADB adopted poverty reduction as its overarching goal, and expanded its approach to encompass a wide range of social and environmental concerns. The achievement of the International - or what has now come to be called the Millennium Development Goals (IDGs/MDGs) is a priority objective, affirmed in both the Long-Term Strategic Framework (2001-2015), and the Medium Term Strategy (2001-2005). Clear reference must now be made to the status of and approach to achieving the MDGs in ADB's Country Strategies and Programs (CSPs).

2. All international goals and targets are not necessarily in line with the client countries' own priorities, which may depend on specific political, social, cultural and other considerations. In order to translate ADB's poverty reduction strategy into country-level policies and programs, country-specific goals and targets must be identified. The CSP process and the establishment of the Poverty Reduction Partnership Agreements signed between ADB and its developing member countries (DMCs), require extensive participation of stakeholders.

3. Finding the most effective way to sustainable poverty alleviation is a major challenge. The primary responsibility for finding solutions to poverty lies with the countries themselves, although the success in poverty reduction largely depends on the coordinated efforts of governments, the civil society, and the international community.

4. In selecting projects, ADB favors those that promise the biggest return in terms of poverty reduction. It is often difficult in the case of individual countries to decide how much emphasis to place on poverty interventions and how much on more growth-oriented investments. Where past performance in poverty reduction has been weak and/or inequality is rising, the emphasis must be on governance and social development. In countries where essential reforms have been undertaken or are under way, growth-oriented investments will reduce poverty. In choosing between projects ADB uses specific assessment techniques, while giving attention to the likely impact on poverty of investments in different sectors. To increase understanding in this critical area, ADB must intensify its analytical work and database so as to more confidently offer optimum support for poverty reduction.¹

5. Much experience and expertise has been accumulated, but a lot remains to be done to better understand the mechanisms that lead from project implementation to sustainable poverty reduction. Greater emphasis needs to be placed on understanding the mechanisms through which a project will generate additional wealth in an economy, and how that will benefit the poor. This involves identifying the channels and measures through which a project affects poverty and the constraints that may be faced in achieving such effects through project implementation. Greater attention also needs to be paid to the factors external to the project that will determine the extent to which a

¹ ADB, *Poverty Reduction Strategy*, November 1999 (www.adb.org/Poverty/default.asp)

project succeeds or fails generally, and particularly with respect to its effects on poverty.² External factors such as corruption or bad governance can not be ignored. The international context must also be taken into consideration. Poverty reduction in DMCs depends largely on financial stability, accessibility to international markets, foreign direct investments, and economic growth in the developed countries.

6. As part of its poverty reduction strategy, ADB is committed to become more accountable for its own work. Assessing and monitoring the impact of its activities on development and, more specifically, on poverty, is now a main preoccupation. Since the adoption of the Poverty Reduction Strategy in November 1999, ADB has issued a series of staff instructions, guidelines, and handbooks. These include the *Advisory Notes on Poverty Analysis* (2000), the *Loan Classification System* (2000), the *Handbook for Incorporating Poverty Impact in Economic Analysis of Projects*, the *Handbook for Poverty and Social Analysis* (2001), and the *Report of the Working Group on Poverty Impact Assessment for Projects* (2002).

MEASURING THE IMPACT

7. Assessments of donor interventions need to be monitored and evaluated at two levels – first at the project level, and then at the level of the economy as a whole. At the project level we need to establish adequate monitoring and evaluation mechanisms. At the more macro level we need to refine and sharpen the socio-economic indicators that are directly linked to the targets associated with the international MDGs and national derivatives of these. There is a wealth of experience associated with monitoring and evaluation. What needs to be done is build on these experiences and change the modalities where they are deemed to have failed.

8. The management and monitoring of development programs must also take into account the timing of interventions and expected outputs and impacts in a more macro sense. The main role of MDBs is not to provide quick relief assistance. Poverty-reducing interventions can in some cases be short term, such as those that sustain the supply of basic services to the poor during emergencies (as in the recent Asian crisis). The main focus, however, must be on medium term interventions -such as those that help address structural issues affecting delivery of basic services- or long term -such as those that stimulate pro-poor growth and encourage expansion of the private sector. ADB is mainly concerned with interventions having medium- or long-term impact, and is adopting a systematic approach to poverty reduction by promoting policy reforms, assisting the development of physical and institutional capacity, and designing projects/programs to better target the poor.¹

9. Monitoring and evaluation of projects and programs need to be integrated across the different stages of identification and preparation (ex-ante assessment), implementation (input and output monitoring), and operation (monitoring of outcome, and ex-post impact assessment), while recognizing the distinctiveness of analyses at each stage.³ Qualitative assessments, accounting methods, and public expenditure reviews are among the tools available for these purposes. This paper, however, focuses on the statistical measurement and monitoring of development outcomes.

² ADB, *Report of the Working Group on Poverty Impact Assessment for Projects*, 2002

³ ADB, *Report of the Working Group on Poverty Impact Assessment for Projects*, 2002

10. The concern at ADB to properly design, target and implement projects and programs in favor of the poor is genuine, although its realization sometimes proceeds in a trial and error mode, not exempt of frustrations. Considerable investment has been made by MDBs and other donor agencies to improve the statistical systems in developing countries, and to develop and disseminate poverty assessment methodologies. Socio-economic surveys and qualitative studies have been implemented in all countries. Comprehensive poverty assessments are now available for most of them, and some have developed successful monitoring systems. Technical assistance in statistics provided by international aid agencies has resulted in substantial improvement of the knowledge base. However, despite the knowledge and experience accumulated and shared by development agencies in the area of measurement and monitoring of development, aid management and policy making are still hindered by the scarcity of timely, relevant and reliable data. Data gaps remain major obstacles for properly monitoring the outcomes and assessing the impact of international aid. Improving the management of aid programs and the measurement and monitoring of their effectiveness will require significant improvements in the statistical information systems, especially in the developing countries where statistical systems remain weak because of past under-investment.

OUTCOME MONITORING AND IMPACT ASSESSMENT

11. Outcome monitoring and impact assessment are two different but highly complementary activities. Both are designed for the systematic collection and analysis of information to improve the impact on poverty of public actions. Nonetheless, they differ in their information requirements, methodological issues, and final use.⁴

12. The outcome monitoring system aims to measure progress toward poverty reduction, as measured by appropriate poverty-related indicators, based on pre-defined baselines and targets. The MDGs 48 indicators provide a good framework for such an outcome monitoring system. They are widely used by ADB for monitoring the implementation of its Poverty Reduction Partnership Agreements with DMCs. However many countries are hard pressed to compile these indicators as their survey and administrative capacities are limited and at times weak. Therefore, building sustainable capacity in the DMCs to effectively monitor at least the 31 indicators enshrined in the first seven goals, would seem to be an important activity if significant progress in measuring and monitoring for development results is to be achieved. Although each country can decide to compile additional indicators, there is no necessity to add indicators to this widely endorsed list for the measurement or monitoring of development results as it would unduly burden overstrained statistical capacities without measurably adding to our understanding of the development process.

13. It should also be noted that outcome indicators do not provide an assessment of the impact - or effectiveness - of aid. An impact evaluation strategy is an essential complement of any outcome monitoring system. Selected policies and programs can be evaluated to help determine the extent to which improvements in outcomes are due to specific public actions. Impact evaluation

⁴ The distinction between outcome monitoring and impact assessment in para. 10 to 12 is extracted from: World Bank, *PRSP Sourcebook*, www.worldbank.org/poverty/strategies.

is a decision-making tool for policymakers, which also provides greater accountability to the public. The data requirements for impact evaluation are more demanding than the monitoring of outcomes, and the methodology is often more complex.⁵

14. In the past, MDBs have helped create monitoring and evaluation units in the context of large projects funded by them. These units have operated independently of the national statistical systems, and have in many instances lacked the technical statistical capacities to collect, compile and analyze data. Often they have not tapped into the technical expertise of NSOs. Therefore, when implementing projects and programs in the future, MDBs should endeavor to incorporate planned monitoring and evaluation activities into the existing government statistical or program evaluation system. This takes advantage of existing national capacity and developed reporting functions and obligations.⁶

15. As competent and authoritative data gatherers, national statistical agencies can thus be key partners for project evaluation. They should however not be given the official mandate to undertake these assessments, or asked to systematically reprioritize their programs of activities to accommodate operational needs of donor agencies. The objective of international assistance to statistics must be to build sustainable capacities through investments in statistical infrastructure – sampling frames, processing capacities, etc. Entire national statistical systems must be strengthened, not just their capacity to monitor development outcomes or contribute to impact assessments. A narrow focus would do more harm than good as it would distort national statistical work programs. Some countries of the region need to move beyond current paradigms and look to new approaches on addressing statistical needs of users, both public and private. The MDBs can aid this effort through targeted assistance and by raising with member governments in the course of the policy dialogue, the need for greater national investment in information systems.

STRENGTHENING OVERALL NATIONAL STATISTICAL SYSTEMS ⁷

16. Although both bilateral and multilateral donors have contributed generously toward strengthening national statistical systems through technical assistance programs, the impact has been modest at best. Two main factors explain these somewhat disappointing outcomes. Technical assistance has been characteristically ad hoc and directed toward specific data collection efforts of interest to a donor, thus not contributing to an overall strengthening of institutional capacities. The second feature worthy of mention is the absence of assistance in efforts to improve management and more effective use of resources. A further contributing factor has been inadequate donor coordination.

17. As observed earlier, major gaps still exist in the statistical information on poverty and related issues in developing countries. In too many cases the reliability of data remains questionable, the technical and financial sustainability of the statistical systems are not assured, the frequency and timeliness of data dissemination remains

⁵ World Bank, *PRSP Sourcebook*, www.worldbank.org/poverty/strategies

⁶ ADB, *Report of the Working Group on Poverty Impact Assessment for Projects*, 2002

⁷ The following paragraphs are largely inspired or extracted from ADB, *Key Indicators 2001*, Chapter 2 (www.adb.or/statistics)

unsatisfactory for the purpose of monitoring development, and best practices in data documentation and dissemination are not universally adopted. Some countries continue to be challenged by an inability to generate basic information flows. They are caught in a vicious cycle in which poor data leads to poor policies, and poor policies hinder rather than promote development. Policy and decision makers continue to lament that they are hampered by the data gaps that exist. Weak data on poverty can in part explain past failures in poverty reduction programs that were poorly designed and inadequately monitored.

Are poverty data reliable?

A critical information that MDBs use in programs and operations is the poverty headcount in client countries. With the exception of Afghanistan and some Pacific Island countries, poverty statistics are now available in all ADB DMCs, although usually on a non-regular basis and based on non-comparable country-specific poverty lines. Poverty incidence has also been computed based on the internationally comparable poverty line of US\$ 1.08 per person per day (in 1993 prices adjusted for PPP). But is this information, based almost exclusively on consumption or income data collected from household surveys, accurate and reliable? How can we explain that poverty did not significantly decrease in countries that enjoyed significant and durable economic growth in the past few decades? The pictures provided by macro-level data, i.e. national accounts, and micro-level data, i.e. household surveys, may be quite different. In India for example, poverty incidence computed from national accounts data would be half of the estimates based on survey data. If methodological considerations can explain such discrepancies to a limited extent, they cannot justify their scale. Considering the political and strategic implications of these uncertainties, reconciling data from different sources should be a priority area of work for MDBs. Similar – although less acute - problems exist for other indicators, for which the issues of harmonization, quality control, timeliness, and dissemination must be further addressed.

18. A priority for MDBs and other aid agencies should be to share a common long-term vision and strategy for the development of the statistical systems in developing countries. The PARIS21 initiative is a major step forward. By building the bridge between users and producers, and by fostering cooperation among donors' agencies, it may lead to a clearer vision of what the DMCs statistics systems must be and what needs to be done to strengthen them.

19. The stage of statistical development in DMCs has been influenced by history, economic orientation, and the extent to which countries have been exposed to external influences. At the broadest level, all DMCs have made progress in developing their statistical capabilities; some have recorded faster progress while others have been slower in adapting to change. All countries in the region have shown a desire for improving their statistical systems. Translating that desire into viable statistical programs demands resources, both national and external. Often these are limited.

20. A first characteristic of the statistical systems in DMCs is the under investment in statistical infrastructure. Some DMCs continue to lack the basic statistical infrastructure in terms of adequate sampling frames, business registers, and advanced data processing capacities. Sampling frames and business registers are the basic foundations for carrying out sample surveys of households and enterprises. National statistical offices lacking firmly grounded survey infrastructure often have limited capacity to conduct well-designed sample surveys, which provide the basis for basic statistics. In

addition, the underlying survey methods and concepts are outdated. In such circumstances, the current surveys yield data that are weak and lacking in depth and comparability. The second main mechanism for data collection – administrative sources – is equally flawed because of the overall weaknesses in administrative structures.

21. A second common characteristic is the inadequacy of budgetary resources for current expenditures linked to statistical operations, reflecting the low priority accorded to statistics by the budgetary and policy authorities. It is clear that overall resource constraints faced by governments have led to under investment in developing their statistical services. National statistical systems are poorly funded to mount surveys and collect new types of data. Indeed, the inadequacy of resources impacts heavily on the range of data traditionally collected and also leads to a lowering of standards, thus contributing to a deterioration in data quality. Too many data collection activities depend on donor agencies funding – thus on donors' agenda. Some activities are being given a high degree of priority by statistics offices not so much because of their relevance, but because of the material advantages they provide to those who will contribute to their implementation. In almost all countries in the region, the national statistical services face severe skill shortages arising partly from the loss of staff to other sectors of their economies where reward systems are more attractive.

22. A third characteristic is the less than full adoption of sound management practices, coupled with frequent changes in leadership of national statistical systems. Statistical offices, usually governed by public service rules and management processes, must adopt modern management and corporate business practices. One broad conclusion that emerges from a review of five decades of statistical cooperation efforts is the absence of a coherent effort to strengthen the management capacities of statistical offices in the developing and transition countries. The efforts at capacity building, it should be noted, have been focused on issues of statistical methods, the transfer of these methods and the application of technology. A significant missing element has been the relative inattention to the need to transfer best practice in the management area, centered around rigorous budgeting, accountability, attention to human resource management and focused attention to client satisfaction. Statistical advancement in the future will demand reforms that will lead to the adoption of sound management practices.

23. Some of ADB's DMCs have their own unique statistical challenges. The size and remoteness of the Pacific Island DMCs and the Maldives vitally constrain them from establishing fully functioning statistical systems. As in other areas of development, they remain handicapped by their size. The data collected and reported by them are inherently limited, less than timely, and weak in terms of coverage of topics. As for the Republics of Central Asia, their transition to market-oriented economies requires that their statistical systems be adapted to the international standards, replacing those that were rooted in central planning.

24. To achieve the development of sustainable and performing national statistical systems, MDBs and DMCs have their own share of responsibilities. DMCs have to develop medium and long-term statistical development plans, pay more attention to quality and harmonization of data, invest more of their own financial resources in statistics, and implement proper dissemination strategies in which statistics is seen as a public good, not just as a government's instrument. MDBs will have to continue providing adequate financial and technical support, avoid influencing the statistical production to satisfy their own immediate needs, and be more demanding in terms of quality.

IMPLEMENTING QUALITY MANAGEMENT SYSTEMS

25. Improving the national statistical systems should be based on a more systematic and organized consideration of quality issues. "Improvement implies change, and successful organizations have developed measures that help them change. Statistical organizations are no exception. They, too, must have a number of quality strategies in place. Quality in terms of accuracy is imperative and part of what statistics is all about. However, statistical organizations need to work with a widened definition of quality since users are interested in more than accuracy. They also need relevant, timely, coherent, accessible, and comparable data as inexpensively as possible."⁸

26. Statistical quality management frameworks have been developed by several international organizations and national statistical agencies. Guidelines are, among others, provided by EUROSTAT (developed for the European Statistical System), Statistics Canada (developed for its own use), or the International Monetary Fund (designed to complement the quality dimension of the Special Data Dissemination Standard -SDDS- and the General Data Dissemination System –GDDS). These frameworks consider the following dimensions of quality: relevance, coherence and comparability, integrity, accuracy, timeliness, accessibility, interpretability and clarity.⁹ These guidelines provide an appropriate framework for the assessment and improvement of statistical systems in developing countries.

27. Statistics are only relevant when used for decision-making. Assuring relevance of data requires proper planning, for providing the right thing at the right time. An issue common to almost all DMCs is the orientation of the statistical systems, which view government agencies as their primary users. Inadequate attention is paid to the needs of the emerging private sector, now a key player in the process of development. Statistical systems have not kept pace with the emergence of the private sector, under economic reforms, as an important data user. It is therefore crucial to foster effective links between all types of users and producers. ADB will contribute to this effort by co-organizing, with the PARIS21 Secretariat, conferences on *Socio-economic Statistics to Support National Policies in the Fight Against Poverty*.¹⁰

TOWARD A POLICY-DRIVEN STATISTICAL SYSTEM

28. Any serious efforts to strengthen statistical systems must start with a strategic view of data needs, not only of governments but also of the entire economy. Defining a work program, consistent with the national policy objectives and goals, represents a first and critical step. A medium-term strategic plan, developed in close collaboration with all users in the public and private sectors, is not a luxury but an imperative. Once a plan is in place, it is incumbent on governments to provide adequate resources for investments and operational budgets. These actions by themselves are unlikely to lead to meaningful

⁸ Eurostat, *Report from the Leadership Group on Quality*, 2000

⁹ *Toward a Framework for Assessing Data Quality*, Carol S. Carson, Director, Statistics Department, International Monetary Fund (2000); *Quality Guidelines - Third Edition*, Statistics Canada, October 1998; *Assessment of the Quality in Statistics*, EUROSTAT, 2000

¹⁰ The first conference will be held in Manila in November 2002, for South Asian countries. Subsequently, two additional conferences will be organized to cover the Pacific Island countries, and the Republics of Central Asia.

improvements in the availability of data and its quality. Such improvements are only likely to emerge if further actions are taken to inject better management practices into national statistical systems. Overall public and civil service reforms to which many governments are committed, have not yet improved national statistical systems because statistical services are viewed as a low priority in the allocation of resources.

29. In formulating strategies for the future development of national statistical systems, the first and foremost step should be articulating a clear set of goals and objectives. The key and central consideration should be that the statistical system generates data that are policy relevant and meet the needs of all stakeholders – government, private sector, researchers, and the public at large. The system should be transparent, cost-effective, and responsive to changing circumstances and needs. These are the hallmarks of a well-functioning statistical system in market economies.

30. In most DMCs, there is a need to move away from the earlier concept of a statistical system designed to serve solely the needs of government. There has to be a greater understanding of how a modern market economy functions and in which the role of government is to manage the macroeconomic environment, monitor trends, and create the appropriate conditions for a vibrant and healthy private sector. In a market system, it is the private sector that makes key decisions about investment, production, and marketing; and, therefore, the need for extremely detailed data for micromanagement by the government is no longer present. Accordingly, the government's needs for data must be reassessed and reformulated. At the same time, the statistical system must address the needs of other stakeholders. The statistical system has also to pay close attention to the issue of costs. Not just the data gatherers incur these costs but also data providers who need to maintain records to meet the data requests made by the statistical system.

CONCLUSION ¹¹

Investing in Data

31. There can be little debate on the need for investing in data. Governments must include such investments in their priorities and strategies for development. Investing in data needs to be part of creating the infrastructure necessary to underpin the development effort, improve governance, and enhance accountability and transparency. It is incumbent on governments, therefore, to allocate appropriate resources for developing statistical systems; failure to do so will likely marginalize countries in the face of challenges posed by ICT-driven globalization.

32. Some governments in the region and elsewhere are now more attuned to the need for investing in data systems. These governments are investing in strengthening statistical infrastructure such as acquiring ICT equipment, building registers and sampling frames, and upgrading human resource skills. More attention is also being directed to adopting and adhering to international standards and methodologies. Some governments are also allocating additional resources for recurrent costs of conducting statistical surveys. External assistance in grant form from both bilateral and multilateral donors continues to fund part of the statistical modernization effort. However, the grants

¹¹ The conclusion is extracted from: ADB, *Key Indicators 2001*, Chapter 2 (www.adb.org/statistics)

channeled to statistical development remain modest and fall far short of needs. A new trend seems to be emerging as a handful of governments, recognizing the importance of investing in data, are now turning to the multilateral financial institutions for loans to support national efforts to strengthen their statistical systems. While external assistance can and does play a catalytic role, committing national resources is vital and critical to reforming statistical systems. The countries that have embarked on statistical reforms are largely middle-income countries, more open to the rest of the world with a commitment to overall economic reforms.

33. However, some small states and the low-income and transition countries continue to hesitate embarking upon a radical restructuring of their national statistical systems. Some countries are pursuing piecemeal reforms and introduction of new statistical activities. These efforts are unlikely to lead to a significant change. While external resources play a critical role, they are by themselves an inadequate force for reform and change. A more critical issue is that of developing a focused overall work program that incorporates policy-driven statistical priorities.

34. An equally critical requirement is that statistical services in the DMCs adopt modern management practices to maximize the use of available resources to deliver outputs. Some DMCs in the region have indeed benefited from adopting such practices, thereby making them better geared to deliver increased outputs with a given quantum of resources. This requires the urgent attention of the national statistical systems in the region. In addition, desirable institutional arrangements are needed for sharing responsibility between agencies for gathering data.