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Final Technical Report & Financial Statement

**Micro Impacts of Macroeconomic and Adjustment Policies in
Bangladesh Phase IV (MIMAP-Bangladesh)**

Final Technical Report

Project Name : MIMAP-Bangladesh, Phase IV

Centre File : 100713-001

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Time Period : 15 March 2001 to 31 July 2003

Date of Presentation : 31 July 2003

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1. Synthesis

The overall objective of MIMAP-Bangladesh, Phase IV was to contribute to enhancing the in-country research capacity and effectiveness of public policies in addressing poverty and development issues in Bangladesh. The rationale underlying the project activities was to improve the impact of research findings and empirical analysis on national policy making and help develop a pro-poor policy environment in the country. For the purpose, the project undertook policy relevant research, supported research-based policy formulation and enhanced the capacity of relevant agencies to adopt policies based on credible research. More specifically, the project activities were designed to (i) develop a pilot local-level poverty monitoring system; (ii) extend the Computable General Equilibrium (CGE) model and develop a supplementary macro-econometric model for more adequate policy analysis; (iii) conduct focus studies; (iv) use effective dissemination methods to help adopt research-based policies; (v) strengthen institutional arrangements relevant for the project; and (vi) develop networking with government and non-government stakeholders.

Recognizing the fact that the logical activities that can influence policy is difficult to specify within a general format and the policy relevance of research depends on specific contexts, the project adopted a multi-dimensional methodological approach in achieving its objectives. This combined several complementary activities like generation and dissemination of good and credible research to the policy makers, drawing together and assimilation of research on key issues faced by the policy makers, developing closer interactions with the policy makers and similar other activities in order to understand the policy making process and enable the plugging of research into policy decisions, and promote the project objectives. During its life-span, all stipulated activities included in the project design were completed and the desired outcomes achieved. The results of the project were manifested in direct contribution of project activities and closer collaboration of the project staff in macroeconomic and poverty reduction policy making in the country. The expected impact is likely to be manifested in changes in perceptions, improved modalities and quality of decision making and better growth performance and poverty reduction outcomes in the future.

2. The Research Problem

The objectives of the project were set in the background of three key research-related problems associated with policy making in Bangladesh: (i) limited availability of poverty and

deprivation related information necessary to identify the underlying factors of poverty particularly at the local and household levels; (ii) inadequate understanding of the linkages and causal factors of poverty stemming from macroeconomic policies including reform measures; and (iii) absence of effective feedback mechanisms to the policy makers and research-to-policy activities that can help design poverty-sensitive policies based on informed research. MIMAP-Bangladesh was undertaken to address the above issues by improving technical and institutional capabilities of selected institutions having key role in the process, conducting quality and pilot research and adopting appropriate dissemination activities to help evolve a broad coalition of concerned stakeholders, including the civil society organizations, to raise awareness on the issues and push the research-based agenda into the policy making process.

3. Research Findings

Under MIMAP-Bangladesh Phase IV, several components were implemented in an integrated manner in order to achieve the objectives. The components were designed such that each would contribute to achieving some specific objectives and add to the overall project goal, particularly keeping in view the major policy concerns.

Local Level Poverty Monitoring System (LLPMS)

Based on the methodology, thrust, purpose, components and indicators for monitoring poverty and development status and potential at the local level which were developed (in a participatory manner) under the project, the LLPMS was pilot tested in four villages (as envisaged under the project). Although not envisaged in the original project design, the pilot testing was taken up in collaboration with the Bangladesh Academy for Rural Development (BARD), an autonomous and government-sponsored national rural development institution, with active involvement and participation of the local institutions (e.g. the Union Parishad) and the community. The pilot testing was taken up with BARD in order to facilitate wider policy impact and better potential for replication. The LLPMS has been satisfactorily tested and used in local level development by the concerned village communities.

The features of the LLPMS, comprising of three major components – Participatory Poverty and Development Monitoring (PPDM), Resource Profile Monitoring (RPM) and Village Development Planning (VDP) – has helped in bringing into the focus the importance of the causal factors of poverty at the local level and the need to address area-specific

problems based on the perceived needs and demands of the poor. The pilot-testing of the system has generated the required information for use in local level planning and development. The targeted communities and the relevant local institutions have realized the usefulness of the system and have started using the system to link their own efforts with development efforts ‘from above’ and create demand-driven receiving mechanisms ‘from below’ to act as a pressure mechanism to ensure the delivery of required services. For the purpose, the indicators of the LLPMS were selected to cover all major areas based on the priorities of the local communities. The effort has strengthened the capacity of the Union Parishad, in which the pilot activity was undertaken, to regularly collect, classify and incorporate poverty and socio-economic data in preparing and implementing local development plans and programs.

CGE and Macroeconometric Modeling

Under the project, a major activity was to update and revise the computable general equilibrium (CGE) model developed in earlier phases of the project. The model was extended to analyze the poverty implications of policy reforms with recently-available data base. The model has been extensively used in performing policy simulations on a wide range of issues particularly on analyzing globalization-poverty interactions in Bangladesh. The welfare and poverty impacts of tariff reforms, trade liberalization, foreign capital inflows, wage inequality and labor market changes, and other reform issues were analyzed to highlight the requirements of a pro-poor reform agenda. In the process, useful research collaboration was also developed with the ESCOR project on Exploring the Links between Globalization and Poverty in South Asia under the program on Globalization and Poverty supported by the DFID and the University of Warwick.

A macroeconometric model, taking into account the unique features of the Bangladesh economy, has been constructed and made operational under the project. The model has the capability to capture, amongst others, the nexus between output, government deficit, foreign trade, money supply, and price level and can be used to examine the effects of both domestic and external shocks on the economy. The model is also suitable for examining the effects of monetary, fiscal and exchange rate policies on macro and sectoral variables. Along with capturing the important dynamics of the demand side of the economy, the model explicitly considered the time series properties of the data and used estimation techniques suitable for dealing with the non-stationary data. The model has been used to conduct

counterfactual analysis and as a tool for forecasts and policy analysis. This includes the impacts of changes in selected exogenous, monetary, fiscal and exchange rate variables on the behavior of major macroeconomic variables. The model will serve as a useful tool for policy simulation and assessing the performance of the Bangladesh economy in the future.

Focus Studies

Several focus studies were undertaken on policy-relevant and on important analytical aspects of the Bangladesh economy. One study has provided, for the first time, consistent estimates of aggregate and sectoral capital stocks of the Bangladesh economy. The study also generated important data sets for operationalizing the macroeconometric model. The relevant estimates from the study were also used in analyzing the trends in total factor productivity (TFP) growth in Bangladesh.

Another in-depth study under the project analyzed, using appropriate econometric techniques, three closely related policy relevant issues in Bangladesh. The study followed an empirical approach to examine the issues of liberalization and growth, export-growth nexus and liberalization, and exchange rate changes and growth. The study provided significant empirical evidence on the role of trade policy reforms in economic growth of Bangladesh. The study on regional poverty profile generated, for the first time in the country, consistent and robust poverty estimates, in terms of various demographic and socio-economic characteristics at the sub-national levels (21 regions). Other studies conducted under the project covered areas such as performance of the external sector, assessment of poverty reduction policies and programs, growth-poverty nexus, gender issues at the local level, agricultural growth-poverty linkages and other issues in macroeconomics and poverty related agenda.

Dissemination and Networking Activities

For dissemination and networking, the project developed a close collaboration with the Planning Commission, Ministry of Finance and other ministries/agencies along with the NGOs and the civil society. The dissemination activities covering workshops, media reports, and other documentation for policy application as well as partnership building, participation in policy dialogues and other available options were widely used for enhancing the application of project research in policy development and its applicability to poverty reduction agenda.

4. Fulfillment of Objectives

As per the grant agreement, the general objective of MIMAP-Bangladesh Phase IV was to ‘further enhance the policy effectiveness of poverty analysis and consolidate the capabilities of relevant national institutions to undertake these activities on a regular basis and provide feedback to planners and policy makers to create a pro-poor and growth-accelerating environment in Bangladesh’. Six specific objectives were set in order to achieve the project goal:

- i) Increase the policy relevance and effectiveness of poverty monitoring by developing a pilot local level poverty monitoring system;
- ii) Expand the analytical capability of the CGE model through extension of the ‘core’ model and supplementing the framework with a macro-econometric model;
- iii) Conduct focus studies on macro and sector specific issues related to poverty;
- iv) Generate and disseminate relevant information to help the policy makers design effective policies;
- v) Strengthen the institutional arrangements to continue the project activities; and
- vi) Further strengthen the network for the project to ensure maximum awareness of and participation in project activities.

In general, all the project objectives were achieved. Also, no objectives were modified, added or removed during the life of the project.

In the case of a few specific objectives, the degree of achievement particularly in terms of their future sustainability, however, remains open. For specific objective (i), the pilot local level poverty monitoring system has been successfully designed, tested and used for initiating local development efforts. This has contributed to increasing the policy relevance and effectiveness of overall poverty monitoring system. Moreover, the relevant local institution (Union Parishad) has acknowledged the usefulness and practical relevance of the effort. The sustainability of the activity will, however, depend on the willingness of the institution to regularly update the information and continuously use the mechanism in performing their stipulated functions. While the Union Parishad has made commitments to continue with the activity, its future sustainability will depend on its ability to keep its commitments. In case of objective (ii), the CGE model has been updated and extended and the macroeconomic model has been specified and made operational. Moreover, in-house

capacity to use the model for policy and analytical purposes has been created. It is expected that the analytical tools will serve important purposes and will make significant contribution in future policy making. The focus studies, conducted to achieve objective (iii), have provided useful research-based inputs to policy making. Similarly, the specific objectives (iv), (v) and (vi) have been largely achieved as reflected in the general awareness on the project activities, wide use of project outputs in relevant policies, and close interaction and involvement in the policy making framework (e.g. in preparing the Interim Poverty Reduction Strategy Paper and other policy documents).

5. Project Design and Implementation

According to the project design, several activities were to be carried out during the life of the project focusing on maximizing the synergy through their effective integration. The research methods and analytical techniques adopted for implementing the activities are summarized below:

Within the poverty monitoring component, the stipulated activity was the designing and pilot application of a local level poverty monitoring system to facilitate local level planning and development. Accordingly, the system was designed applying participatory research techniques (e.g. focus group discussions, needs identification at the local level, and interactions with local level functionaries) to identify appropriate indicators at the local level and the system was tested and implemented using participatory techniques of data collection. This combined both qualitative and quantitative information collection at village and household levels. The analytical techniques covered various methods of Participatory Rural Appraisal (PRA) including village transect, social mapping, resource mapping, wealth ranking, seasonal exercise, problem ranking, time line analysis, and focus group discussion. The collection of household data was done using a pre-designed format. The elected Chairman and the concerned members of the Union Parishad provided the guidance by involving themselves in the entire process and the information collection was done by the local youth who were trained under the project. For initiating plans/programs, a Village Information Book for each village was prepared based on which the local level functionaries, in collaboration with the villagers, have identified their problems and ranked these in terms of priorities in order to work out programs for implementation.

The modeling exercise involved re-alignment of the CGE structure to focus on specific poor groups, updating the data base with a new SAM and other available information, and carrying out policy simulations to see poverty impacts of alternative policies. The research methods and analytical techniques involved the collection of relevant data from available primary and secondary sources, estimation of relevant parameters, construction of SAM and other data sets, and re-specification of the model structure. The construction and estimation of the macroeconometric model involved intensive review of the relevant literature and specification of the theoretical structure of the model. The time-series data on the variables were generated as per the model specification and the model equations were estimated using appropriate econometric techniques. More specifically, the time series properties of the model were tested and the equations were estimated using Phillips-Hansen method. After validation, the model has been used for counter-factual analysis and simulations.

The focus studies, which addressed important policy-related issues, were carried out adopting appropriate research methods and analytical techniques including Geographic Information System (GIS) and quantitative methods such that the research outputs become credible to generate robust conclusions.

The dissemination and networking activities adopted event-specific and other activities (including workshops, consultations and interactions) to bring research results to the users e.g. policy makers, fellow researchers, NGOs, international agencies, advocacy groups and the broad civil society. In addition, training and other capacity building programs were organized to ensure future continuation of the project activities.

In implementing the project activities, the technical and other support received from PMMA and MPIA networks of the MIMAP program were of crucial importance which greatly facilitated the attainment of the objectives. Similarly, with support from the MIMAP Gender Network, gender issues at the local level were analyzed including the collection of information on non-conventional indicators covering intra-household gender disparities, participation in decision-making and the state of mental health.

6. Project Outputs and Dissemination

The list of outputs generated under the project is given below:

Working Paper Series

	<u>Title</u>
1. MIMAP Working Paper No. 1	: A Review of Bangladesh's External Sector Performance
2. MIMAP Working Paper No. 2	: Assessment of Poverty Reduction Policies and Programs in Bangladesh
3. MIMAP Working Paper No. 3	: Macroeconomic Developments in the 1990s
4. MIMAP Working Paper No. 4	: Poverty Trends and Growth Performance: Some Issues in Bangladesh
5. MIMAP Working Paper No. 5	: The Basic MIMAP Poverty Profile (BMPP): Bangladesh
6. MIMAP Working Paper No. 6	: Bangladesh: External Sector Performance and Recent Issues
7. MIMAP Working Paper No. 7	: Local Level Poverty Monitoring System: Conceptual Issues and Indicators
8. MIMAP Working Paper No. 8	: Agricultural Growth-Poverty Linkages: Issues and Implications for Policies in Bangladesh
9. MIMAP Working Paper No. 9	: Poverty Profile in Bangladesh: Livestock Development as Means of Poverty Reduction
10. MIMAP Working Paper No. 10	: Experiences of Local Level Poverty Monitoring in Bangladesh: Selected Results of the Pilot Survey
11. MIMAP Working Paper No. 11	: Gender Issues at the Local Level: Summary Results of a Pilot Survey in Bangladesh
12. MIMAP Working Paper No. 12	: Planning Workshop on Local Level Poverty Monitoring System

Technical Paper Series

- | | <u>Title</u> |
|--------------------------------|--|
| 1. MIMAP Technical Paper No. 1 | : Welfare and Poverty Impacts of Tariff Reforms in Bangladesh: A General Equilibrium Approach |
| 2. MIMAP Technical Paper No. 2 | : Poverty Implications of Trade Liberalization in Bangladesh: A General Equilibrium Approach |
| 3. MIMAP Technical Paper No. 3 | : Decomposing Wage Inequality Change in Bangladesh: An Application of Double Calibration Technique |
| 4. MIMAP Technical Paper No. 4 | : Globalization Poverty Interactions in Bangladesh |
| 5. MIMAP Technical Paper No. 5 | : The Effect of Exchange Rate Changes on Output: An Empirical Analysis on Bangladesh |
| 6. MIMAP Technical Paper No. 6 | : A Macroeconometric Model of Bangladesh: Specification and Estimation |
| 7. MIMAP Technical Paper No. 7 | : Data Set for the Macroeconometric Model of Bangladesh |
| 8. MIMAP Technical Paper No. 8 | : Bangladesh: Regional Poverty Profile and Development Indicators – A GIS Based Analysis |
| 9. MIMAP Technical Paper No. 9 | : A Macroeconometric Model of Bangladesh: Validation and Simulation |

Focus Study Series

- | | <u>Title</u> |
|-----------------------|--|
| 1. Focus Study No. 1 | : The Estimation of Capital Stock for the Bangladesh Economy |
| 2. Focus Study No. 2* | : Total Factor Productivity Growth in Bangladesh: Model Specification and Estimation |
| 3. Focus Study No. 3 | : Trade Liberalization and Economic Growth: Empirical Evidence on Bangladesh |
| 4. Focus Study No. 4 | : Bangladesh: Regional Poverty Profile 1999 |
| 5. Focus Study No. 5 | : An Analysis of Poverty and Development Issues at the Local Level: Results from Four Villages |
| 6. Focus Study No. 6 | : Data base for Local Level Planning: Village Information Book |

* The finalization of the study will be completed on return of the author from India where he is undergoing treatment for illness for the past several months.

The outputs were disseminated widely, both in print and electronic format, to the policy makers, researchers, and other potential users. In addition, training programs on model-building, local level poverty monitoring, and poverty analysis were taken up as an integral part of the relevant activities over the entire life-span of the project.

7. Capacity Building

The impact on capacity building of the project is seen in two major areas. First, institutional reinforcement of BIDS through procurement of computers, softwares (e.g. GAMS), training programs, networking and access to new knowledge and information. Second, increased capability of the researchers of BIDS and other organizations to carry out poverty-related research and policy analysis.

8. Project Management

The implementation and management of the project followed the course stipulated in the project design. The administrative management of BIDS, at all stages of the project cycle, was very satisfactory which helped to implement the project as per the design. The technical and other support and administration by IDRC was efficient and provided in a timely manner.

9. Impact

The research outputs and the knowledge generated by the project have already created some noticeable impact during its life time. The reception and the use of the produced knowledge, particularly by the policy makers and the research community, are apparent in its wide application. The recently published Interim Poverty Reduction Strategy Paper (I-PRSP) of Bangladesh has drawn extensively from the research outputs of the project. Similarly, agriculture, rural development and other sectoral policies and the macro-economic framework for the country's poverty reduction agenda reflect the concerns addressed in the project's outputs. In general, the poverty research of the project has contributed much in designing more informed policies in the country which are expected to create desirable impact on the poor and marginalized social groups including the poor women. The tangible impact of the project activities will, however, take time to realize as the research-policy linkages deepen in future, policy implementation becomes more effective, and the activities initiated under the project are pursued.

10. Overall Assessment

Overall, the project was well-designed and the activities well-planned. The investment of time, effort, and the financial resources provided by IDRC was well-spent and the research carried out under the project is expected to provide continuing benefits making it a worthwhile investment.

11. Recommendations

The flexibility and the deep trust in the value of local capacity building in research and analysis, though takes time to materialize, should be pursued by IDRC in achieving its organizational goal. The bridging of research and policy requires a deeper understanding of several issues e.g. how can policy makers best use research and move toward evidence-based policy making, how can researchers best use their findings in order to influence policy, how can the interaction between researchers and policy makers be improved, and similar other concerns. Most of these issues are country-specific and there is much to learn from the processes that underly the policy making arena in a country. This requires time and close interactions with the policy makers in order to understand the compulsions and identify appropriate entry-points of research to influence policy. For achieving this, strong involvement and deeper understanding between the developing country researchers and policy makers are needed for which IDRC can provide a suitable umbrella through its support in a context-specific manner as exemplified under MIMAP-Bangladesh.