Consultation Summary – Bangladesh

Consultation for the DFID research strategy 2008-2013

Acknowledgements

This summary reports reflects a work in progress. It was developed based on objectives and principles as articulated in the approach to the in country consultations presented to the Central Research Department of the Department for International Development.

Close to 100 stakeholders from the Government of Bangladesh, Universities, Research Institutes, Non Governmental Organizations and the Private sector have dedicated time to contribute to the consultation.

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Abbreviations

DFID	Department for International Development
CRD	Central Research Department
MDG	Millennium Development Goal

1 Context and objectives of the consultation

The Department for International Development (DFID) is currently defining a new research strategy for 2008-2013. DFID's budget for research will double from £110 million in 2005/06 to £220 million in 2010. The new strategy is an opportunity for DFID to refocus on the most pressing research challenges, work in innovative ways and make new research partnerships. In order to guide this strategy, the Department aimed to consult internal and external stakeholders (i.e. users and producers of research) to determine the needs and priorities for research as well as to identify ways to improve priority setting, capacity building and dissemination.

The consultation process has taken place in three ways:
i) through a series of in country consultations in Bangladesh, India, Uganda, Nigeria and Ethiopia, setting an agenda for later consultations in South Africa and China;
ii) through discussions with key research stakeholders in the UK and with international funders;
iii) using an electronic questionnaire to get a wide range of views from people in the UK and internationally interested in research for development in developing countries.

The Department asked two external parties to organise the in country consultations for the following countries: Uganda, Nigeria, Ethiopia, Bangladesh and India. The purpose of these consultations was to:

- bring accurate and unbiased views – both on possible research topics and on the process of funding, conducting and using research;
- incorporate the views of both producers and users of research ;
- create an opportunity to stimulate discussion and to strengthen the partnership with stakeholders;
- collect and present actionable insights from the stakeholder consultations.

The output of each of the in country consultations is a summary report outlining the needs and ideas for research and the ideas for improvement of the research process. Each country report has been shared with the participants for feedback and with the respective DFID country office for comments.

2 Country context – Bangladesh

Bangladesh is one of the world's most densely populated countries, with its people crammed into deltas of rivers that flow into the Bay of Bengal. Poverty is deep and widespread; almost half of the population lives on less than one dollar a day. However, Bangladesh has reduced population growth and improved health and education. Some of the key facts for the country include:

- Total population: 144.2 million (in 2005)
- Annual population growth rate: 1.7 %
- Gross National Income per capita: US$ 400, Gross Domestic Product per capita: US$ 1,870
- Human development index rank: 137 out of 177 countries
- Life expectancy at birth: 63.3 years
- Infant mortality rate: 41/1000 live births
- Under-five mortality rate: 77/1000 live births
- Maternal mortality rate: 320/100,000
- Percent of people living below $1 a day: 36.0%, Percent of people living below $2 a day: 82.8 %
- Gender equality: Equal number of girls and boys enrol at primary and secondary schools

The major employer at the moment is agriculture, but it is unable to meet the demand for work. Thus many people – like other citizens from countries in the region - seek work abroad. The country is trying to diversify its economy, with industrial development a priority. Overseas investors have pumped money into manufacturing and the energy sector.

Formerly East Pakistan, Bangladesh came into being only in 1971, when the two parts of Pakistan split after a bitter civil war which drew in neighbouring India. Bangladesh spent 15 years under military rule and, although democracy was restored in 1990, the political scene remains volatile. At this time, Fakhruddin Ahmed, a former head of the central bank, has taken over as head of the interim government (since January 2007). The caretaker administration has the responsibility of preparing the country for elections, which it has said will take place at the end of 2008.

Bangladesh has taken large strides toward achieving the Millennium Development Goals (MDGs). The country has outperformed most low income countries on a range of social indicators. These gains have occurred despite widely held perceptions of poor governance. Bangladesh has low scores on most global governance perception indicators, and investors rank corruption among their most serious concerns.

Some of the major challenges Bangladesh is facing in development can be summarised as follows:

- About 63 million people live in deprivation, two-thirds of them in extreme poverty;
- Inequality may be rising;

- Adult illiteracy remains persistent and is falling only slowly;
- Malnutrition and maternal mortality levels in South Asia are among the highest in the world;
- Garment exports, three quarters of all exports, are vulnerable to competition from low-cost producers now that the Multifibre Arrangement has come to an end;
- The availability of cultivable land is declining;
- Accelerating growth will require higher levels of investment - to diversify into areas of comparative advantage and to finance infrastructure - and higher productivity;
- Institutional accountability and incentive structures are very weak as a result of a poorly functioning and overly centralized bureaucracy;
- Bangladesh is a low-lying country is vulnerable to flooding and cyclones and it stands to be badly affected by predicted rises in sea levels.

Most of the major bilateral and multilateral donors, international financial institutions and international NGOs are present in Bangladesh. In addition, Bangladesh has a very strong local network of NGOs with Grameen and BRAC as the most important actors. Most of the larger local NGOs conduct their own research while the bilateral and multilateral organisations commission research to a combination of North and South institutions or partnerships between the two. The Bangladesh government has strong control over the commissioning of research or any other projects that involve the flow of large amounts of donor funding.

Some of the producers of research include BIDS (Bangladesh Institute of Development Studies), BUET (Bangladesh University of Engineering and Technology), Institute of Governance Studies, BRAC University and Department of Development Studies, and Dhaka University. There are many more organisations that produce research, including local NGOs, universities, research institutes and the government.

3 Methodology of the consultation

The purpose of the consultation programme was to get views on research needs and ideas as well as identify improvements to the research process (priority setting, building capacity and dissemination) from both those who do research, and those who access and use research knowledge to inform policy and practice.

3.1 Consultation programme

The approach for the country consultation programmes can be divided into four phases: (1) Stakeholder interviews, (2) Topic specific workshops, (3) Cross sectoral workshop and (4) Senior stakeholder workshop.

The topics for the topic specific workshops follow the DFID Central Research Department's four research priorities for the 2008-2013 strategy: (1) Sustainable agriculture, (2) Health and killer diseases, (3) Climate change and (4) Governance and social research.

1 Stakeholder interviews

The stakeholder interviews provided specific context for the in country consultation programme and helped moderators prepare for and tailor the generic approach to the country consultations. Five key stakeholders were selected and interviewed for this purpose. The interviews focused on four areas (1) Country overview of research user and provider community (2) Examples of positive and negative experiences with the research process, (3) Needs and ideas for research and (4) Ideas for improvement to the research process.

2 Stakeholder questionnaire

In addition to the stakeholder interviews we asked all the stakeholders that were invited to participate in the workshops to complete an online questionnaire. Through this questionnaire the stakeholders that could not make the workshops were given the opportunity to submit their needs and ideas for research. The questionnaire was completed by 10 stakeholders in Bangladesh.

3 Topic specific workshops

Topic specific workshops were conducted in each of the four priority areas. Key stakeholders from industry, government, civil society, research institutes and universities at the national and state level participated in the workshops. The workshops lasted approximately four hours and were set up in a way that moderators had the full group, for the plenary discussions and the group split in two, one for research users and one for research producers for the break out discussions.

The workshops had three specific sessions:

1. *Introduction and strengths and weaknesses of how things work today* – To introduce the objectives, schedule and the participants for the workshop and discuss the strengths and weakness of how things currently work. (1 hour)

   The moderators introduced the participants to the objectives of the workshop and the agenda for the day. After the introduction, participants were asked to write down two of their good and two of their bad experiences with using or conducting research. The facilitators then broke the group into two to have break out group discussions on their experiences while noting the strengths and weaknesses of how things work today.

2. *Research needs and ideas* – To determine the key barriers to achieving goals, understand the causes and determine how research can help to solve the problem. (1.5 hours)

   The process to arrive at specific research needs and ideas, articulated as research questions, was to start with picking goals in the specific topic area. These goals could be in line with the millennium development goals or be something specific to the country. The decision on the top three goals to review was followed by a brainstorm to identify the barriers to achieving these goals. As a group, we conducted a root cause analysis on each of the barriers and determined whether or not the causes were susceptible to research. Finally, we asked the participants to articulate specific research questions that would help address the barriers.

   The second part of this session focused on idea generation. We used a number of provocative questions to get the participants to think outside of normal patterns to determine the future priorities for research.

3. *Research process* – To identify ways in which a funder like DFID can improve priority setting for research, build research capacity in developing countries, communicate research findings and support putting them into use. (1.5 hours)

   For the purpose of this session we split up the research process into four areas (1) priority setting for research, (2) building research capacity in developing countries, (3) building capacity to put research into use and (4) dissemination of research. We brainstormed ideas for improvement as a full group on the first area and for the remaining areas we split the group into two, one group of research users and one group for research producers. In the session on dissemination of research, we asked the research users to review the thoughts of the research producers and vice versa.

4 Cross sectoral workshop

The cross sectoral workshop followed the topic specific workshops. The purpose of this workshop was to identify the research needs and ideas that border on two or more topic areas.

The cross sectoral workshop had three specific sessions:

- Introduction – Introduction of the objectives, schedule and the participants. This was followed by a brief presentation of the preliminary results of the topic specific workshops conducted over the previous days. (0.5 hours)
- Research needs and ideas – We split the group along the four topic areas and conducted three break out sessions linking each topic area up with each of the others to identify research questions that fall between the priority areas (1.5 hours)
- Research process – Within the research process we specifically focused on the strengths and weaknesses of (1) partnerships to use and produce research and (2) interdisciplinary research,to identify ideas for improvement (1 hour)

5 Civil society workshop

In addition to the topic specific and cross sectoral workshop we organised a separate workshop for members of civil society in addition to their representation in the other workshops. The format for this workshop was the same as for the topic specific workshops and focused on a more strategic view on the research priorities for Bangladesh.

6 Senior stakeholder workshop

The purpose of the senior stakeholder workshop was to have a strategic discussion on the priority areas (and other topic areas not identified as priority areas by the central research department) and to determine how they contribute to growth and poverty reduction. The senior stakeholder workshop included senior representatives from industry, government (Central Planning, Economic Affairs, Prime Minister's Office), universities and research institutes.

The workshop followed the same structure as the topic specific workshops with three distinct sessions - to capture strengths and weaknesses of how things work today, research needs and ideas and finally improvements for the research process.

The second session started off with a fixed goal rather than a prioritization of goals. The fixed goal was "Economic growth and poverty reduction" which was followed by a brainstorm on the major barriers to economic growth and poverty reduction. Finally, following the root cause analysis on the barriers, we articulated specific research questions that could help address the barriers.

3.2 Consultation participants

As briefly mentioned above, each of the topic specific consultation workshops required a balanced representation of private sector, research institutes (scientific and policy), government (civil servants and policy makers), civil society (NGOs and people's organisations) and universities (professors, scientific and policy). The participants for the cross sectoral workshop were picked from among the participants at the topic specific workshops.

The senior stakeholder workshop required participation from a similarly balanced group, only here the focus was on those with a broader view on development. For the senior stakeholder workshop we included representatives from the following:

- Government (representatives from Central Planning, the Prime Minister's Office and various ministries)
- Universities (university professors, especially from the sciences, economics, social sciences, and policy experts from think tanks on development, economics)
- Civil society (senior management of international and local poverty alleviation, economic development, education NGOs)
- Private sector (senior management and senior members of major industry associations)

For each of the workshops, a number of potential participants were identified - generally about two to three times the required number - to account for people not being able to participate for any reason. The target for confirmed participation was 120% to account for participants not showing up on the date.

Annex A includes a complete overview of all the participants from the Bangladesh consultation programme.

4 Research priorities

The following chapter includes the results of the second session of the workshops which focused on research needs analysis and idea generation. The structure of the chapter follows the approach to the workshops, starting with paragraphs for the four main topics (the priority areas), then a paragraph with the additional research needs and ideas that came from the cross cutting section, and finally a paragraph on the topics that specifically related to the topic of inclusive growth.

Each of the paragraphs presents the research questions that were articulated by the participants. The research questions are categorized in two ways: (1) by sub topic, for instance in sustainable agriculture we recognize agricultural productivity and agro processing as subtopics, and (2) the type of research, i.e. Technology development and scientific research, Operational research, and Policy analysis and design.

4.1 Sustainable agriculture

For the session on research needs analysis, the participants of the workshop on sustainable agriculture chose the following goals for Bangladesh:

- Increased agricultural productivity and incomes
- Improved sustainability of agricultural practices
- Disaster protection for crops and farmers.

The research questions raised by participants in the agriculture workshop were often closely intertwined with environmental and/or health related research (e.g. impacts of climate change on agriculture, toxicity of pesticides) and the strong overlap among these three sectors quickly became apparent during the discussions.

The research questions that emerged from the discussion have been divided into the following sub topics:

- Agricultural productivity
- Agriculture and environment
- Livestock and fishery productivity
- Agricultural economics

1. Agricultural productivity

<u>Technology development and scientific research</u>

- What level and type of fertilizer use is optimal, by crop?
- What is the optimal spacing of seedlings?
- What are the most effective, community-based seed storage methods to ensure seed quality?
- What are the best crops for use in multi-storied farming practices?
- What are optimal designs for surface water irrigation systems?
- How can supply chains for agricultural inputs be optimized?

<u>Operational research</u>

- How can Bangladesh ensure that seeds achieve the same quality levels as in China?
- Why do farmers not adopt productivity-enhancing technology and practices?
- What is the break-even point for farmers to invest – economically and psychologically - in productivity enhancing technologies?

- What are the most effective, community-based seed storage methods from a social perspective?

2. Agriculture and environment

Technology development and scientific research
- How can genetic engineering be used to develop pest resistant, drought resistant, saline tolerant and flood tolerant crop varieties?
- How can quick and uniform germination be ensured, especially after disasters? (or harvesting before disasters)

Operational research
- What are the potential impacts of climate change on agriculture and what are the most viable adaptation systems?

Policy analysis and design
- What contingency plans should be developed for disaster preparedness?

3. Livestock and fishery productivity

Technology development and scientific research
- Which fish species are optimal choices for combined fishing and farming techniques?
- What are the most environmentally-friendly management systems for shrimp cultivation?
- What is the effect of exotic freshwater fish (piranha, catfish) on native fish and the environment?
- How can the incidence of poultry and livestock diseases be minimized?

Policy analysis and design
- How can adequate supplies of poultry feed be ensured?

4. Agricultural economics

Policy analysis and design
- What are the full impacts of agricultural subsidies and rationing for inputs?
- Developing a vision/strategy/roadmap for Bangladesh through research.
- What is the feasibility and what are the economics of import substitution?

Operational research
- What is the impact of foreign remittances on rural economies? How is the money used and how could they impact agriculture?
- Besides seed quality and the technology used, what other conditions contribute to China's high agricultural productivity and what budget would Bangladesh require to do the same?

4.2 Health and killer diseases

For the session on research needs analysis, the participants at the workshop on Health and killer diseases chose the following goals for Bangladesh:
- Reducing child mortality
- Addressing toxification, and
- Increasing access to treatment

In addition, raising awareness of health issues, improving nutrition, and combating specific diseases (HIV/AIDS, malaria, TB) were mentioned as secondary goals.

In the health sector in particular, participants were often quick to suggest a need for further basic research to develop a more detailed picture of the current status of health and healthcare throughout Bangladesh. Participants did not always feel that the 'hard numbers' and statistics currently available in the health domain were adequate to lay the groundwork prior to research into treatments and policies.

The research questions that emerged from the discussion have been divided into the following sub topics:

- Child mortality
- Research to address toxicity-related health issues
- Research on soil-transmitted helminthes
- Research on water-borne illnesses
- Research to improve access to healthcare

1. Child mortality

Technology development and scientific research

- How can the likelihood of developmental / mental disabilities in newborns be minimized?
- What are the best methods to capture basic health statistics on child mortality?

Operational research

- What is the best message for creating awareness in each geographical area?
- How many children are dying in the first fifteen days after birth?
- What is the current level of nutrition of women of child-bearing age and pregnant women? What are the implications of nutrition levels for low birth weights?
- What are the current practices in maternal health services?
- What is the knowledge and service level of service providers on matters of maternal health and child mortality?
- What current (traditional) practices and beliefs may be harmful to child health (e.g. bathing infants in cold water)?

Policy analysis and design

- How can we improve rural health management capacity to address childhood mortality?
- What is the optimal make-up of healthcare teams?
- How can pilot projects be used more often to assess the value of interventions?

2. Research to address toxicity-related health issues

Technology development and scientific research

- What alternatives exist for pesticide storage?
- Can safer storage reduce pesticide poisoning?
- What are the primary symptoms of pesticide poisoning?
- Which emergency services are required to address pesticide poisoning most effectively and affordably?
- How low can pesticide use levels go while still accomplishing their objective? What is the minimum level of toxicity that could be used?
- How are pesticides influencing the food chain and what is the full extent of their environmental impact?

Operational research

- What is the current knowledge level of farmers with regard to pesticide use and effects?
- What are the toxicity levels of the different pesticides? How does safety vs. effectiveness compare for the various pesticides in use?
- What is the level of iodine in breast milk?
- How is the distribution of pesticides taking place (detailed supply chain analysis)?
- What is the availability of banned substances and how are they being made available/getting through?
- What is the potential threat to Bangladesh of emerging, global diseases (e.g. avian flu, mad cow)?

Policy analysis and design
- What policies can be used to regulate sales of medicines and pesticides?
- What can legislation do to improve transparency in toxicity levels?
- What is happening at the community level with regard to toxicity prevention and treatment?

3. Research on soil-transmitted helminthes

Operational research
- What are the full effects of soil transmitted helminthes on hemoglobin levels, height, intelligence, and productivity?
- How to persuade people to uptake the basic methods of prevention (basic hygiene)?

Policy analysis and design
- How can we universalize the existing prevention, diagnosis and treatment of soil transmitted helminthes?

4. Research on water-borne illnesses

Technology development and scientific research
- What is the most cost effective way(s) of providing safe water?
- How can we best collect and store rainwater?
- How can we cost-effectively purify surface water?
- What are the most sustainable options for providing safe water to each different region in Bangladesh?

Operational research
- What is the current effect of surface / ground water contamination on the food chain?
- Conducting geological mapping of safe aquifers (without causing additional damage/contamination).

5. Research to improve access to healthcare

Operational research
- How to use different health systems (traditional, Western, etc) in combination most efficiently?
- What are the options to maintain health infrastructure when funding ends?
- How can we increase the number of people working in health management?
- What factors are hindering the attraction of good health managers?

Policy analysis and design
- How can existing health policies best be implemented?
- How to create more opportunities to bring health care to the communities?
- What are the options for providing healthcare to all?

4.3 Climate change

For the session on research needs analysis, the participants at the workshop on climate change chose the following goals for Bangladesh:

- Ensuring effective waste management
- Limiting the effects of climate change on the poor.

The participants were quick to suggest studies related to agriculture in the discussions of both waste management and impacts and adaptation to climate change, reflecting the importance of agriculture to the Bangladesh economy.

On the topic of climate change, most of the research questions are concentrated on adaptation to, rather than mitigation of, the effects of climate change. While participants acknowledged that research studies have already been conducted to better understand the full extent of potential impacts due to climate change, they saw many more opportunities for work in this area. Developing as complete an understanding as possible of potential impacts was considered to be a critical prerequisite for developing effective adaptation strategies.

The research questions that emerged from the discussion have been divided into the following sub topics:

- Research on waste management.
- Research to assist in adaptation to climate change.
- Research for disaster risk management and preparedness
- Alternative energy

1. Research on waste management.

Technology development and scientific research

- What new technologies exist to allow reduced use of chemicals in industrial processes?
- Which (additional) products may be recycled?
- Which (additional) products maybe treated/reused and how?
- What are the best methods to treat effluent from dying and textile factories and could this water be reused (e.g. irrigation, fisheries)?
- How can poultry waste be used to generate energy?
- What are the best methods for disposing of arsenic sludge?

Operational research

- What are the full impacts of the increased use of nutrient-enriched organic fertilizers?
- What are the full effects of pesticides/toxic chemicals/other waste on human health?
- What are the full effects on soil, air, water of different types of waste?
- What are the best ways to deal with each type of waste (disposal, management, reuse, recycling)?
- What procedures – aerobic/anaerobic – are best for different types of waste?
- Given urbanization rates, what are the likely projections for waste production?
- What are the most effective media to raise awareness of waste issues, by audience?
- What business models for waste management and recycling can be commercially viable, in theory and in practice (economic and action research)?
- How can final disposal practices be standardized?

Policy analysis and design

- What are the costs of different options for waste treatment (e.g. effluent plants – cost per product) and how much subsidy is needed?
- What are the most appropriate rules and regulations for waste, including storage, transport, and disposal?
- Which existing standards need to be updated and which new standards need to be adopted?
- Research to improve understanding of what standards are needed, their potential impacts on stakeholders, and to find an appropriate balance among stakeholder needs.
- What zoning system for industry would work best from a waste management perspective?

2. Research to assist in adaptation to climate change.

Technology development and scientific research

- Which crops can adapt best to higher temperatures?
- What planting times will be optimal given changing conditions? How should the existing crop calendar be adjusted?
- What crop patterns/rotation will be optimal?
- Which crops will be the best choices to plant from a soil management perspective?
- What types of hybrid crops should be developed?
- What inputs will be best to maintain soil fertility given climate change and any new crops grown?
- How can the use of rainwater be increased?
- How can flooded land be reclaimed and what are the costs to do so?
- How to adapt design standards due to climate change (e.g. roads, building materials, etc.)?
- How can early warning systems be developed (for weather and climate)?

Operational research

Impact on livelihoods

- What will be the specific impacts of climate change on current crops?
- How will higher levels of salinity impact on crops?
- What is the effect of climate change on salinity intrusion in coastal ecology and biodiversity?
- What is the full potential impact of climate change on fisheries?
- What new kinds of pests could potentially affect crops?
- What are the impacts of climate change on grazing patterns?
- How will livelihoods be impacted by climate change (e.g. harder to fish on rougher seas) and what social impacts will result from impacts on livelihoods?
- How will the poor be affected – what are the key vulnerabilities, what will be the magnitude, intensity and duration of impacts?
- How will impacts on the poor vary by region?

Impact on resources

- What would be the economic impacts of changes to the composition of mangrove forests?
- How will biodiversity be affected, by region?
- What will be the specific local/regional impacts of a global temperature rise, including trans-boundary issues (e.g. impact on river catchments)?
- To what extent will mangrove forests be affected?
- How will the biological composition of forests change?
- What are the full potential impacts from stronger/more variable monsoon winds?

- What is the potential interaction between climate change impacts and tectonic movement?

Social effects of climate change
- Would the food habits of labourers be different with climate change and how so? (improving understanding food habits given temperature)
- What will be the effects of climate change and resulting changes to development patterns on the geographical distribution of the population?
- How will disease prevalence (malaria, diarrheal, dengue, vector-borne diseases) change as a result of climate change?
- Why do farmers remain unaware of climate change? Why is it that communication efforts are not working?
- What will be the social effects of population movement resulting from climate change?

Adaptation to climate change
- What social adaptation will be necessary given changing forests?
- What are the best power saving methods that can be replicated at a large-scale?
- How will development programs be affected by climate change (e.g. sanitation programs) and how could technology help?
- How should public services be adapted (DAE, BMD) given changing conditions and what measures to put in place to monitor these services?

3. Research for disaster risk management and preparedness

Technology development and scientific research
- What modelling can help determine the likelihood of hazards occurring (PRSP key question)?
- How to increase the lead time of flood and storm surge warnings?
- What are the best models for riverbank erosion forecasting?
- What are the best models for drought forecasting?
- How best to mitigate the effects of river bank erosion?

Operational research
- What are the risks of exposure to hazards on the livelihoods of people?
- How can the cost of river 'training' be reduced?
- What is the level of risk to current critical infrastructure in times of natural disasters? How many critical infrastructure units could survive natural disasters and how many are needed?
- Are dams / embankments being designed to take climate change into account?

4. Alternative energy

Operational research
- What are the alternatives to current energy sources for Bangladesh (wind, tidal, solar, biomass)?
- What are practical and feasible local sources of energy?
- What opportunities exist for combined cycle power plants?

4.4 Governance and social research

The participants of the workshop on Governance and social research chose the following goals for Bangladesh:

- Raising education levels
- Ensuring citizen engagement in the decision making process
- Ensuring the effectiveness of public institutions.

Other goals mentioned included gender equality and environmental governance and justice.

The suggestions for research topics in governance concentrated on the functioning of government institutions at all levels, specifically why these institutions continue to fall short and why groups of stakeholders remain excluded from governance and decision-making. The participants were interested in using research to help develop viable new 'best' practices for citizen participation and institutional effectiveness. Improving the level and quality of education in Bangladesh was raised as a governance goal in its own right but also as a key means to promoting greater public involvement in decision making.

The research questions that emerged from the discussion have been divided into the following sub topics:
- Citizen engagement in decision making
- Functioning of local and national institutions

1. Citizen engagement in decision making

Technology development and scientific research
- How can better access to information be provided and what information should be disseminated?
- How can the security of external and internal migrants be ensured? What help can they be offered to avoid being cheated and to give them protection upon return?
- How can macro finance be made available to women in SMEs?

Operational research
- What are the current gaps in representation by people's organizations and why have these organizations disappeared?
- What are the exact needs of people's organizations, including institutional support?
- To what extent and how are various stakeholders currently involved in the budget setting process?
- How is a lack of public information affecting people's livelihoods?
- What is the link between gender participation and growth?
- Why are people socially excluded? (only at the patterns level, not root causes)
- What is the current level of women's empowerment?

Policy analysis and design
- Why are women not involved in decision making? Why aren't mechanisms for gender equality working?
- Why are ethnic minorities and other marginalized groups not involved in decision making?
- What are the most effective policies for encouraging women to be active in local institutions?

2. Functioning of local and national institutions

Technology development and scientific research
- What are the options for expanded resource allocation?
- How to identify new and expanded methods for resource allocations to local government?

- How can 'gaps' that lead to corruption be filled?
- How can we maintain institutional memory?
- How can a 1 to 5 percent productivity growth in agriculture be achieved?
- How to strike the right balance between strengthened local governments and the national government?

Operational research
- What could be the impact of specific reforms?
- What are the conflicts of interest among stakeholders for potential reforms?
- Which reforms are most feasible and which should be the priorities?
- How transparent are local institutions?
- What are the specific training needs of local institutions?
- How is corruption perceived by the people?
- Why is the current level of education low, especially at the primary level?
- Where is institutional knowledge lacking?
- What are the mechanisms / incentives for corruption?
- Why/how has growth happened despite governance issues?
- Why do laws go unenforced and in what areas are laws not available?
- Which expenditures are effective and which are not?
- What are the best ways to make people aware of the activities of local institutions?
- Why are children not going to school?
- How to conduct change in the culture of organizations?
- Why has the quality level of education gone down?
- What institutions and organizations have worked/helped in the past and which have not?
- How has institutional reform been done in the past? Why haven't ideas "bedded down" and produced results? (e.g. Union Parishad)

Policy analysis and design
- How can a rule-based grant system be implemented for local institutions?
- Where do gaps exist in regulation around corruption?
- What rules and procedures can do the most to help limit corruption?
- How to create an enabling environment for growth? What are the bottlenecks? What are the relevant national and regional issues/barriers?
- What role has the government played for the garment industry (helped or hindered)?
- Would reduction in corruption make a major difference, and for whom? What types of corruption matter most in an informal economy?

4.5 Cross cutting issues

In bringing together expert stakeholders from each of the four sectors in a single, cross-cutting workshop, new and important research questions emerged which span two or more sectors. The questions listed below have not been captured under any single sector list above.

1. Research in Agriculture and Health

Impact of agricultural practices on health
- What deficiencies are there in the micro-nutrients currently in the soil (micro-nutrients necessary to humans for nutrition)?
- Which crop varieties are most resistant with limited use of chemical fertilizers and how can these varieties be isolated?
- How is women's health in particular affected by chemical inputs used in agriculture and what are the best treatments for them (women farmers, field workers)?

- How to address the long term impacts of chemical poisoning from agriculture at minimal cost?
- What are the long terms impacts on health of toxicity from chemical inputs both direct (to farmers) and indirectly through consumption?

Alternative agricultural practices
- What is the potential for bio or organic fertilizers and reductions in chemical fertilizer use to help minimize health impacts?
- What are the best options for replenishing depleted micro-nutrients from the soil to ensure high nutritional content in produce?
- Which farming techniques (e.g. crop rotation, cropping patterns, intensity) minimize the need for chemical inputs harmful to human health?
- How to prevent avian influenza outbreaks and what is the best response pattern?
- How best to assist doctors/health practitioners to treat farmers for chemical poisoning?
- How can overall agricultural productivity be increased with minimal impact on health?
- How best to ensure surveillance / effective monitoring mechanisms for disease outbreaks such as avian influenza?

2. Research in Agriculture and the Environment

Impact of agricultural practices on the environment
- What is the effect of intensive shrimp cultivation on the environment?
- What are the full impacts of chemical fertilizers and pesticides on the environment in terms of soil health, surface and ground water, biodiversity and air quality?
- What is the impact of the use of shells in poultry feed (due to the removal of shells from the ecosystem)?
- What is the toxicity level of poultry and duck waste (heavy metal content, nutrient content)?
- Which animal waste management practices (especially poultry waste) minimize environmental impact? How might nutrients in poultry and duck waste be reused?
- What organic alternatives exist to shells in poultry feed?
- How to safely dispose of dead birds and spoiled eggs (due to pesticides, disease)?
- What is the best long-term strategy for Bangladesh on food security given increased global interest in bio-fuels?

3. Research in Agriculture and Governance

Governance mechanisms that stimulate agricultural productivity
- What mechanisms can ensure that fertilizers / quality seeds / pesticides are effectively distributed?
- How can local governments be empowered in the area of agricultural regulation?
- What mechanisms could best help to encourage more agro/food processing?
- How can regulations help to ensure quality fish processing?
- What are user-friendly regulations that can support the use of new agricultural technology?
- What policies would go farthest in helping farmers get ‘their fair share’ (fair prices, competitive markets)?
- What do other countries do to regulate and audit agricultural waste and what system would work best in Bangladesh?

4. Research on the Environment and Governance

Methods for controlling pollution
- How can environmental governance interventions be simplified?

- How can sector-specific environmental audits be introduced (e.g. mining)?
- What new administrative practices are needed given the expected impact of climate change on development patterns?

Environmental policies
- What coordination mechanism is most appropriate for public-private partnerships on the environment?
- What regulations are needed around loss of wetlands, river encroachment, water logging, and the introduction of alien species?
- Where are the greatest needs for standards in environmental governance – water quality, air quality, soil health, etc.?
- What is the most appropriate institutional structure to handle environmental governance (requirements, structure, place, etc.)?

5. Research on Governance and Health

Monitoring health service delivery
- Are those targeted by current health policies actually benefiting from them?
- What are current needs for geriatric health – health indicators, care?
- How best to monitor rural health delivery?
- How do we design e-governance such that its impact on health is maximized?

Policies to improve health service delivery
- How can research be used to demonstrate the impact of health on economic growth to result in increased resource allocation to health?
- What health insurance options are appropriate for Bangladesh and how could micro health insurance be designed?
- What sort of incentives can be put in place for health practitioners that will work at the rural level?
- How can the private sector be encouraged to contribute to the health system (e.g. contributions of equipment)?
- What performance appraisal system for health practitioners would be most appropriate for Bangladesh? How can an effective system be designed and which actors should be considered?

6. Research on Health and the Environment

Impact of climate change on health
- What are the specific health impacts that can be expected from climate change (e.g. increased prevalence of disease - malaria, dengue, water-borne diseases - due to temperature increase, increased flooding)?
- How can the health effects of environmental degradation be measured?

Impact of pollution on health
- What occupational health hazards currently pose the greatest threats (e.g. handling and disposal of chemicals)?
- What is the full extent of specific health impacts from soil, air and water pollution?
- What are the specific health impacts of different kinds of waste?
- What are the best practices and policies around waste disposal from a health perspective?

4.6 Education

In addition to the four priority areas, the participants mentioned education most frequently as an area that is of specific importance for Bangladesh. Education was discussed as a separate topic in the senior stakeholder session.

While education was discussed in the context of governance, in particular as a means to help ensure effective citizen engagement, additional research questions were proposed when considering improvements to education as a development goal in its own right. The participants mentioned the following specifically:

- What types of education are most appropriate for Bangladesh?
- When (at what age) should vocational / technical education start?
- What types of vocational focus are most needed (e.g. to support the garment sector)?
- What education competencies are needed and to what extent are they currently being delivered?
- Which skills should Bangladesh focus on in education?

5 Potential Research Contributions to Inclusive Growth

Participants in each topic-specific workshop were able to articulate a clear connection between improvements to their particular sector and inclusive growth.

Agriculture was considered to be able to contribute to growth through the development of new, higher quality and/or more highly processed products for export (e.g. canned/preserved pineapple). Better cooling facilities for transport and storage (a 'cold chain') was raised as one potential route to higher quality end products. Some of the research questions raised in this area included:

- Which crops would be the best choices for new / higher quality / more highly processed exports?
- What improvements can be made to transportation and handling technologies to ensure consistent high quality of end products?

In the area of **Health**, participants felt that economic and inclusive growth could be facilitated though increased 'export' of skilled health professionals; growth in the domestic pharmaceutical, pharmaceuticals testing, and biotechnology industries; and through productivity gains resulting from a healthier work force. Some of the research questions raised in this area included:

- What is the demand for health professionals abroad and how quickly could they be prepared?
- How can Bangladesh attract investment for pharmaceutical research and development?
- What are the competitive advantages of Bangladesh in drug development, including clinical trials?

For the **Environment**, participants suggested that improved, more sustainable forestry practices, additional recycling, and improvements to soil health would all work to foster inclusive growth. In addition, better natural disaster modelling and prediction, including climate change impacts, would help minimize economic setbacks associated with environmental disasters. With these suggestions for growth in mind, participants raised the following research questions, among others:

- How can more use be made of organic fertilizer, a form of recycling that provides income along the supply chain?
- What opportunities exist for e-waste recycling in Bangladesh (e.g. computers, cell phones)?

Improved **Governance** was also expected to lead to inclusive growth, at least indirectly, by changing behaviour and effectiveness of government institutions and through increased citizen participation. With regard to Governance and growth, participants wished to see research used to address the following:

- What has been the impact of global policies on poverty reduction in Bangladesh (e.g. Paris Agenda, WTO policies)? What has been their impact in particular on malnutrition, health, child labour, human capital, etc. as well as on income poverty?
- What is the effect of world trade agreements on labour?

In addition to the topic-specific research questions listed above, participants mentioned other, **cross-cutting** questions in the discussion of how research could contribute specifically to inclusive growth:

- How can support be provided to SMEs when they graduate from microfinance?
- How does fiscal and monetary reform interplay with micro-level development goals (e.g. rural development)?

6 Research process

There are five areas within the research process that are highlighted in this chapter: (1) Priority setting and selection, (2) Capacity building to do research, (3) Capacity building to use research, (4) Partnerships in capacity building and (5) Dissemination to get research into use. Each area was a specific topic of discussion in the session on research process in the consultation workshops. This chapter summarizes the ideas generated across all sessions to make the process more effective.

6.1 Priority-setting

This part of the process includes both assessing needs as well as picking up good ideas from research producers. The participants were asked how they currently contributed to the process and how they would ideally contribute to the process for the purpose of identifying best practices and specific improvements. The ideas for improvements can be organised along seven themes:

Start with the problem rather than the solution - Participants strongly supported a needs-based approach to priority setting. One suggested approach was to identify why decisions cannot be taken currently and then consider how research could help. Starting priority setting with the desired outcome in response to a genuine need may also more readily encourage cross-sectoral or inter-disciplinary research efforts.

Beyond asking researchers to respond to RFPs detailing a particular research question, participants felt that it would be important to invite researchers to propose their own, most urgently needed research questions through broader requests when appropriate. Rather than limiting researchers to proposing methodologies for addressing a pre-determined question, the RFP process could centre on a development issue or barrier and ask researchers to develop the question as well as the methodology. Broadening the proposal process in this way, when feasible, would invite creative angles to addressing challenges and would serve to develop capacity among researchers.

Start with a review of existing research - Participants described the importance of assessing which research already exists on any given topic to avoid duplication of efforts and to address real gaps. Given the difficulties at times to determine what research has already been done, greater consolidation and better sharing of research findings often came up as a need.

Data and findings from existing research are considered to be good sources for future topics given the new questions that often emerge from initial studies. Monitoring and evaluation of current research efforts and programs (e.g. the heath and nutrition plan, HNSP) could show the way for new research topics donors may wish to pursue and/or avoid.

Conduct consultation with local experts and beneficiaries - Participants were often quick to express that those conducting research locally as well as those 'in the field' (practitioners, end users) should be consulted either to suggest research priorities or, at a minimum, to confirm that the correct priorities have been set. These consultations could take the form of:

- Grass roots level discussions
- Surveys of users, beneficiaries and other stakeholders
- Workshops, conferences, or focus groups with a variety of expert stakeholders

- Discussions with and funding of NGOs for research
- Regular strategy meetings with local experts
- Direct personal interaction and visits to local universities and colleges
- Consultations with local associations relevant to the issue.

Work with national/local governments - In addition to consulting with researchers and end-users of research, government stakeholders are also important players to involve in priority setting. Participants suggested that government and donor representatives could work together on joint committees to identify priorities and to understand any mismatches between donor and national priorities for research and development.

Encourage research user and provider collaboration - When possible, donors should facilitate communication and collaboration between local research users and producers to determine research priorities together. This would ensure that needs for both basic and applied research would be heard.

Involve the private sector - Participants saw a role for the private sector in Bangladesh to contribute to priority setting and suggested that companies also be consulted when assessing needs for research. Additional financing for research and development by the private sector would allow companies to pursue priority needs on their own as well.

Seek peer review for research proposals - Participants suggested that donors may wish to solicit research proposals from a specific group (e.g. NGOs, academic institutes, etc.) depending on the nature of the research, rather than having the process be open to all. Evaluation of proposals should include a peer review by local experts and donors should seek 'evidence-based' proposals.

6.2 Capacity building for doing research

Those primarily involved in producing research in their professional roles envisioned a number of ways that local capacity for conducting research could be strengthened to build on a base of considerable, existing expertise. Suggestions were made beyond current needs for skills and equipment to address indirect, root causes of research capacity, namely the absence of a strong research 'culture' in some areas. The ideas for improvements can be organised along seven themes:

Conduct training / skills development - While in many cases local expertise and skills are not limiting factors to the capacity for conducting research, participants were able to name specific skills they wished to see better developed:

- The capacity to choose research subjects and questions so that these might more often be 'home-grown' rather than set externally by consultants or donors.
- Writing skills, in particular writing styles to make research reports more 'user-friendly' for wider audiences.
- Beyond conducting research, skills development to help researchers contribute to getting research into use and to getting research results implemented.
- Developing additional social researchers given a traditional country-wide focus on scientific research.
- Training in qualitative as well as quantitative research methodologies.
- Scientific management capacity.
- Training to make optimal use of technology.

It was suggested that training programs be on-the-job or hands-on to make them as practical and relevant as possible. Training could be conducted within Bangladesh or abroad, as most appropriate.

One participant described that providing better incentives and encouragement for university professors to continue their own research (currently they tend to focus on teaching) would allow students to benefit from being trained by teachers who are themselves still researchers.

Provide equipment and physical infrastructure - Depending on their field, a number of participants raised particular equipment needs that they felt would directly improve capacity to conduct research. Most suggestions were either for scientific laboratory equipment or else for additional access to computers or the Internet. As one example, an academic participant suggested that a spectroscope would allow his university department (environmental science) to conduct research on soil health, among other topics, in-house instead of relying on external sources when a spectroscope is called for. Researchers stressed the importance of wide availability of Internet, not the case currently, in developing capacity by allowing all researchers to review and learn from past research results. Medical colleges, in particular, were thought to be limited by a lack of physical infrastructure for research.

Organize scholarships and exchanges - Scholarships, fellowships, internships and exchange programs were readily proposed by participants to better build research capacity among students preparing for careers in research. To minimize 'brain drain' from students studying and then settling abroad, participants specified that scholarship programs may need to fund students to study in Bangladesh or else include an agreement that the student should return to Bangladesh at the completion of the program. Scholarships could be ear-marked to develop specific skills most in need in Bangladesh. Exchange programs should also involve bringing expert teams from abroad and not just sending students out of the country. Mentoring programs for researchers were also highly regarded.

Provide targeted funding - Participants suggested that in order to ensure that capacity building to do research takes place, funding should be aimed specifically at capacity building initiatives rather than indirectly funding capacity building through research projects. Another option would be to include explicit, separate funding for capacity building within individual project budgets. The potential for capacity building can be used as criteria for selecting which research projects to fund.

Focus on the long-term in capacity development - Participants emphasized the importance of long-term commitments when it comes to building capacity to do research and suggested that funding be designed to offer continued support rather than providing for a series of short projects. Monitoring and evaluation of projects, feeding back to the researchers involved, would help researchers maximize learning from each new project.

Address 'brain drain.' - Participants occasionally raised the concern that Bangladesh is at risk of losing research talent as graduate students are drawn to further studies or jobs abroad. In order to maintain talent, they suggested efforts to improve the work environment at local research institutions. Additional funding for doctoral research and laboratory equipment, as mentioned above, could reduce the need for students to relocate.

Provide better access to past research - As participants discussed research topics and questions most in need of study earlier in the workshops, there was often a lack of consensus on which research questions had already been addressed through previous research. Again during the discussion of capacity building, the research providers wished to have improved access to past research studies and their results. This improved access

would develop researcher capacity by permitting more learning from past research experiences. It would also help avoid duplication with new research efforts and provide better continuity across studies.

Participants' ideas for improving access to existing research included an online portal to feature the latest journal research and better data archives by sector, in particular in the area of health research.

6.3 Capacity building for using research

The third part of the research process reviewed with the workshop participants was capacity building for using research. The participants were asked to identify the gaps in capacity to use research that they experienced in their current situations. This was followed by a brainstorm session to identify ideas for bridging these gaps. The ideas for improvements can be organised along five themes:

Conduct workshops on using research and training to use research - In addition to offering workshops or seminars directly to research users on how to interpret and implement research findings, participants expressed a need for additional 'train the trainers' programs on research use. Participants foresaw a stronger role for private sector service providers in offering training to use scientific research results and lab work in particular.

Develop specific skills - Training initiatives on the following aspects of research use would be beneficial, according to participants:

- Training on methods of persuading end users of the benefits of research and instilling a sense of the value of research in trainees themselves
- Capacity building at research institutes on the most effective mechanisms for implementation (e.g. could be offered to the Bangladesh Agricultural Research Council (BARC))
- Training on analyzing archives and databases
- Helping managers keep pace with changing technology and managing scepticism about new technology
- Training on how users can input into the research process
- Techniques for following up on and monitoring projects, post-implementation
- Capacity building on adapting general research finding to specific local contexts.

Work with end users to promote the benefits of research - The importance of engaging with end users to help prepare them to use research came up in the discussions of both dissemination of research and capacity building to use research. Involving end users early on in the process and getting their 'buy in' will put end users in a better position to implement final results. Depending on the subject matter, end users could also benefit from specific training on using results (e.g. training farmers to grow high quality seeds).

Engage the private sector - Participants reported that efforts to promote the use of research is currently aimed at government stakeholders but that opportunities also exist for the private sector to make better use of research results. In particular, private sector companies could increase collaborations with research institutes (BRAC, BADC, etc.) both to conduct and use research.

Develop public sector capacity - For the public sector, the following measures were proposed to increase research use and implementation:

- Working to ensure appropriate professional assignments within government (having the right experts in the right positions).
- Addressing bureaucratic delays and regulations which slow implementation of research findings.
- Improving coordination and knowledge sharing between government research institutions.
- Setting up dedicated research cells within institutions to promote understanding and use of research.
- Ensuring that results reporting is (or is adapted such that it becomes) 'policy maker friendly' (e.g. concise, offering clear recommendations or roadmaps for implementation, avoiding jargon, use of visuals).
- Improving knowledge management systems in government departments to ensure that research findings are not 'lost' given the lack of continuity in staffing.

Include implementation stage in proposals - Proposals to conduct research sent to donors or other funders should include a description of how research findings will be used and implemented. Successful proposals should be awarded funding that includes a set amount for the implementation phase.

6.4 Role of partnerships in capacity-building

The role of partnerships in capacity building to do and to use research was discussed separately in the cross sectoral and senior stakeholder workshops. The participants were asked to share their experiences with partnerships, the challenges from their experience, opportunities for partnerships, and specific ideas for improvement.

Challenges with partnerships - In discussing their experiences in the past with research partnerships, participants mentioned that they had faced the following challenges:

- Living up to partnership agreements – completing work as specified, on time - had been challenging for both sides.
- Inequality between the partners presented issues - for instance, the project being adapted to the needs/agenda of one partner more so than the other.
- The results and the benefits of the research were not always equally shared.
- Insufficient interaction between the partners had limited the extent of knowledge transfer that could occur.
- Challenges in partnering with public rather than private research institutes.
- Research institutions have become too demand driven, which may not always be in the overall, macro-level interest of the country.

Types of partnerships envisioned - To improve capacity to produce and to use research, participants recommended the following types of partnerships be further explored:

- **South-South** collaboration on region-specific research.
- Additional collaboration between research **users and producers** to help ensure that research conducted is readily implemented in the field.
- Additional collaboration with **government** research users in particular from academic institutes and civil society to get government buy-in to research early on to increase the likelihood of implementation. Waste management was raised as one particular area where research collaboration with government could be beneficial.
- Partnerships between local **NGOs** and public and private **research institutes**.
- More collaborative programs with **foreign and domestic research institutions**, for instance for environmental research and to develop course curricula.

- **Donors** and **research institutes** for priority setting and to share expertise.

Participant recommendations for effective partnerships - To overcome some of the difficulties participants had experienced with research partnerships in the past, participants suggested:

- Establishing solid legal frameworks /contracts for partnerships if required. The framework would detail which partner(s) own the results of the work.
- Looking for partnerships with organizations with common interests, where objectives and motivations are most likely to be aligned.
- Frequent interaction between partners, in person if possible, to allow each party maximum learning from the other.
- Establishing clear goals for the partnership.
- Flexible funding to accommodate changes to ensure that research efforts and partnerships are not cut short.

6.5 Dissemination of research to get it into use

From the start of the workshops, participants tended to be quick to recognize that too often research, once completed, fails to be effectively communicated and put into use. Their recommendations for how best to disseminate research findings varied depending on the audience they had in mind, as detailed below.

Disseminate to research colleagues - To better share research results among themselves, researchers suggested that additional opportunities to publish findings in journals, following peer review, should be sought. Conferences, conference papers, and presentation at academic and research institutions were named as other important means to share results within the research community.

Disseminate to policy makers - Government audiences are critical to reach for results to be implemented. They also have the capacity to aid in dissemination by sending results on to other departments through the government network. Participants recommended that government stakeholders be involved early on in the research process, to get buy-in before results are prepared and released. In targeting government audiences, researchers should consider:

- Preparing policy briefs
- Specifying policy implications (tailored to non-scientists)
- Offering policy workshops
- Attending parliamentary meetings.

Disseminate to end users / **practitioners -** To allow research findings to be communicated to and used by practitioners and end-users (e.g. farmers, healthcare patients, etc.) participants stressed the importance of offering materials in Bangla. To accommodate limited literacy levels among some audiences, content should be presented in graphic or visual form if appropriate, and simple messages or slogans should be shown.

Direct communication (e.g. workshops) with community leaders (e.g. clergy, women's groups, etc.), to first convince them of the benefits of research, was thought to be a good approach for facilitating take up of the results by end-users. NGOs could also be an effective channel for helping to communicate results to end-users.

The following formats were considered to be relevant for reaching end users and practitioners in more remote / rural areas in particular:

- Attendance at 'field days,' fairs or rallies
- 'Tea stall' sessions in villages
- Folk media / live theatre
- Printed leaflets and posters
- Communication through practice networks or professional bodies (e.g. health care workers)
- Training manuals for practitioners
- Involving the private sector to help disseminate research as they sell products, including detailed labelling of benefits (according to research results) on consumer products (e.g. fertilizers to farmers).

Disseminate to (and through) media - Participants in virtually every break-out group mentioned the media as a channel with untapped potential for disseminating research results to end users, practitioners, policy makers and even fellow researchers. Beyond television and radio news and newspaper articles, participants suggested disseminating results during talk shows or even drama programs.

To attract media interest, participants suggested press releases, kits and conferences on research results as well as field trips for the press. Training courses could be provided for media on the importance of research and how to interpret research findings.

Global recommendations on format - Messages should be tailored to each audience's needs when it comes to releasing research results. For most audiences, research results should be communicated concisely, in summary form. To ensure the effectiveness of materials, communications expertise and message testing should be applied, and formal communications strategies may need to be developed. To the extent that it is possible to demonstrate research results (e.g. test fields on farms), demonstrations should be used to convince end users and policy makers of research benefits.

Global recommendations on dissemination channels - Participants frequently suggested that seminars or workshops be held to explain research results and their implications in person to a variety of stakeholders (research colleagues, policy makers, practitioners, NGOs, etc.). Dissemination by Internet and through the mobile phone network was a frequent suggestion across audiences, but participants recognized a need to expand the availability of Internet before being able to reach all audiences online. The Internet could also be used for more comprehensive and consistent archiving of results to ensure that results remain readily available for longer.

Ongoing involvement of research users - Participants explained that rather than only being audiences for research results from completed studies, research users should be engaged much earlier in the process, since research designed with end users in mind is much easier to disseminate and implement. Also, when results are disseminated, research users should be invited to feedback on the results in a two-way communication process. When results are not well received by research users or where they have been difficult to disseminate, research producers and funders should take note for future efforts.

Annex A: Consultation Participants

Sustainable agriculture

Nr.	Name	Organisation
1	Mr. Mohamman Lutfor Rahman	Ministry of Agriculture
2	Prof. Dr. A.M. Faruque	Sher-e-Bangla Agriculture University
3	Dr. Md Sarowar Houssain	Sher-e-Bangla Agriculture University
4	Mr. Md. Jahid Hossain	Water Resources Planning Organization.
5	Mrs. Anowara Begum Shelly	Caritas - Bangladesh
6	Mr. M. Abul Kashem	Bangladesh Agriculture University
7	Mr. S.K. Das	Square Group
8	Mr. Md. Fazlul Haque	Dep't. of Agriculture Extension
9	Prof. Dr. Muhammad Musa	United International University
10	Mr.Md.Abul Khair	Dept. of Fisheries
11	Mr. Sarwar Ahmed	Syngenta Bangladesh Ltd.
12	Dr. G.P. Das	Bangladesh Agriculture Research Council

Health and killer diseases

Nr.	Name	Organisation
1	Syed Ferhat Anwar	Institute of Business Adminstration (IBA), Dhaka University
2	Prof. M.A. Faiz	Dhaka Medical College
3	Dr. Mohammed Hussain Choudhury	Marie Stope Clinic Society
4	Mr. Kazi Najmul Alam	Nari Moitree
5	Dr. Nawshad Ahmed	UNICEF
6	Prof. Anwarul Hasan Sufi	University of Rajshahi
7	Mr.Toslim Uddin Khan	Social Marketing Company
8	Prof. M.A.K. Azad Chowdhury	Bangladesh Institute of Child Heath
9	Prof. Dr. Tahmina Begum	Bangladesh Institute for Research & Rehab. In Diabetics, Endocrine and Metabolic Disorder (BIRDEM)
10	Mr. Abdus Sattar	Voluntary Paribar Kallyan Association
11	Mr. Zakaria	NGO Forum
12	Prof. Dr. M.U.Kabir Chowdhury	Holy Family Red Crescent Medical Copllege Hospital
13	Mr. Mahbubul Haque	Marie Stope Clinic Society
14	Prof. Dr. Fatima Parveen Chowdhury	Institute of Public Health

Climate change

Nr.	Name	Organisation
1	Dr. Md. Rezaur Rahman	BUET
2	Mr. Mahmood Hasan Khan	Dept. of Environment

3	Dr. Md. Sirajul Islam	North South University
4	Dr. Md. Abdul Baten	Bangladesh Agricultural University
5	Mr. Md. Zahedur Rahman	Bangladesh Paribesh Andalon (BAPA)
6	Advocate Mirza Quamrul Hasan	Bangladesh Environmental Lawyers Association (BELA)
7	Mr. Raquibul Islam	IUCN, Bangladesh
8	Mr. M. Omar Faruk	Faruk Fertilizer Ltd.
9	Mr.Khan M. Faizus salehin	South Asia Enterprise Development Facility (SEDF)
10	Mr. Sayedul Arefin	Japan International Cooperation Agency (JICA)
11	Dr. Samarendra Karmakar	Bangladesh Meteorological Department
12	Dr. Nasima Akter	BRAC Research & Evaluation Department
13	Prof. S M Imamul Haque	Chair, Dept. of Soil, Water and Environment
14	Prof. Donald J Gomez	Environmental Microbiology
15	Dr. Hossain Uddin Shekhar	Biochemistry and Molecular Biology

Governance and social research

Nr.	Name	Organisation
1	Mr Ali Md. Shahiduzzaman	BRAC University
2	Md. Altaf Hossain	BRAC University
3	Mr. Mahfuz Ullah	Centre For Sustainable Development (CFSD)
4	Mr. Yawer Sayeed	Aims of Bangladesh
5	Dr. Jiban R Majumder	Planning Commission
6	Dr. A.K.Enamul Haque	East West University
7	Mrs. Jesmin Ara Begum	Bangladesh Public Administration Training Centre (BPATC)
8	Mr. M. Asaduzzaman	Bangladesh Institute of Development Studies
9	Mr. Wazir Alam	Quality Institute of America(QIA)
10	Mr. S.M. Zubair Ali Khan	Manusher Jonno Foundation
11	Mrs. Taleya Rehman	Democracy Watch

Civil society

Nr.	Name	Organisation
1	Dr. Md. Sirajul Islam	Disease Research Bangladesh (ICDDR)
2	Mr. Mohammad Shahjahan	Bangladesh Centre For Communication Programs (BCCP)
3	Mrs. Hasina Chaklader	Bangladesh Woman's Health Coalition
4	Mr. M. Moklesur Rahman	Centre For Natural Resources Studies (CNRS)
5	Mr. Gayanath Sarker	Thangamara Mohila Sabuj Sangha (TMSS)
6	Mr. Yaqub Haider	Plan Bangladesh

7	Mr.Syed Mohammad Nurul Alam	OXFAM
8	Mr. Iqbal Ahmed	Padakhep Manabik Unnayan Kendra
9	Ms. Monija Rowshan Ara Begum	Centre for Environmental Research and Development Initiatives (CERDI) - Bangladesh
10	Mr.Abdul Hai Khan	Grameen Trust
11	Mr.Rabiul Islam	DESHA Secchasebi Arthosamajik Unnayan O Manabik Kallyan Sangstha
12	Mr. Selim Reza Hasan	CARE Bangladesh
13	Mr. Kazi Abu Shahed	Action Aid -Bangladesh
14	Alhaj Modh. Fazlul Haque	Jatiya Tarun Sangha (JTS)
15	Dr. Aminur Rahman	Thangamara Mohila Sabuj Sangha (TMSS)
16	Ms. Kazi Eliza Islam	Save The Children - U.K.
17	Mr. A.K.M. Fazlul Haque Majumder	Thangamara Mohila Sabuj Sangha (TMSS)
18	Ms. Meher Nigar	World Food Programme

Senior stakeholders

Nr.	Name	Organisation
1	Dr. Khabir Ahmed	Bangladesh Agricultural Research Council
2	Mr M. Sanaul Haque	Bangladesh Agriculture Development Corporation (BADC)
3	Mr. Hossain Shahid Mozaddad Faruque	Bangladesh Water Development Board
4	Mr. Zahurul Haque Khan	Institute of Water Modelling (IWM)
5	Mr. Md. Abdul Mannan	Bangladesh Meteorological Department
6	Prof. Dr. Provat Chandra Barua	DGHS
7	Mr. Kamal Uddin Ahmed	Planning Commission
8	Mr. Md. Zakir Hossain	External Resources Division (ERD)
9	Mr. Shahjahan Biswash	DGHS
10	Mr. A.T.M Altaf Hossain	Rural Development Academy, Bogra
11	Mr. K.M.Nabiul Islam	BIDS
12	Md. Abdul Mannan	Rural Development Academy
13	Mr. Faizur Rahman	Bangladesh Public Administration Training Centre (BPATC)
14	Dr. Wais Kabir	Bangladesh Agriculture Research council
15	Mr. A.K.M. Mamunur Rashid	Comprehensive Disaster Management Programme(CDMP), Ministry of Food & Disaster Management