

Public Consultation on DFID Research Strategy 2008-2013

Outreach in the South

Contributions and Main Messages

30 November 2007

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Summary of main messages

This report collates the various contributions submitted to a blog and dgroup established to support the consultation.

Two further documents from the Forum for Agricultural Research in Africa (FARA) and DNet Bangladesh should be read separately.

Here we extract some key messages from the various contributors. The main part of the report contains the full text of the various contributions, arranged by question.

Researching sustainable agriculture

Take a **strategic long view** in supporting sustainable agricultural development. Avoid responding to the winds of short term fashion - make continued long term strategic investments in agricultural improvement. Sustainable agricultural systems are not brought about over night and are not usually resultant from short term silver-bullet fixes.

Focus more on the **livestock sector**. Particularly on support to market chain development and promotion of livestock and animal products and related industry development. [Mozambique]

Focus on sustainable **economic** development, in particular on **marketing** of products for export, regional but also national. Support development of higher quality products for regional and national markets. How to move a large proportion of farmers from subsistence to commercial or market oriented agriculture.

While building on the CGIAR and RNRRS type of work, pay extra attention to work that will improve **economic opportunities** and growth. Examples of such work include: how to improve market access at national, regional and global levels; how to effectively inform and influence policies on farm/farmer support, and building local capacity to achieve this; how to improve the research into use concept and practice.

Focus on efforts to help farmers get **market security** and maintain the environment. [Indonesia]

Mechanism to **transfer the knowledge and technology** to small farmers and marginal farmers should be developed. Research should be oriented to develop technologies and knowledge suitable and appropriate for small and marginal farmers and not just industrial/large farmers. [Bangladesh]

There are a lot of **indigenous agricultural technologies** that people have initiated, specially the poor. And we have to base research on those indigenous technologies. [Bangladesh]

Organic farming is highly neglected. [Bangladesh]

Improve rural infrastructures to **attract youth** into agriculture [Nigeria]

Improving research on ‘killer diseases’ and healthcare

DFID research should consider **health services and health system** research. We need more research on cost effective (both provider and community perspective) ways or strategies for delivering essential health package (which includes killer diseases) at community level. DFID should focus on the **healthcare systems and the institutional management** of healthcare as well as strengthening and **implementing health policies** in low resource settings

Strengthen the **primary health care sector, in an integrated way**, so that both communicable and non communicable disease, including mental disorders are addressed, partly as they each pose major burdens, and partly as they inter-relate.

Take **broader perspective when considering healthcare** beyond the facilities and medicines.

We need to know about the best ways of ensuring adequate **support and supervision to primary health care**, most effective and sustainable methods of outreach from PHC to chronic cases in the community; shared care with traditional healers and research into traditional herbs.

Research should also be undertaken for some mechanism of **health financing** that could be something like health insurance. So we need to find some alternative strategy for health financing particularly for the poor. [Bangladesh]

Research should be undertaken for successful implementation of **maternal health** development schemes and identify the gaps in the extant schemes to provide care. Further research and development is required on appropriate vaccinations against **childhood diseases**.

Give more emphasis on **socio-cultural and behavioural aspects** of the etio-pathogenesis and progression of these infections/diseases rather than just biological/medical aspects, through better involvement of the infected and affected communities.

Community **behaviour and awareness and lifestyle** are important factors to control disease spread. Without community involvement, it is impossible to stop diseases spreading.

Health promotion should include **mental health** promotion, and it would be helpful to research effective ways of population delivery

Mental and neurological disorders are responsible for 13% of the global burden of disease. In addition, more than half of the 10 leading risk factors that cause one third of premature deaths worldwide have behavioural determinants, such as unsafe sex, tobacco or alcohol consumption, etc. Despite this evidence, mental health is a neglected and an under-researched area of public health, particularly in low- and middle-income countries

Mental health research is not well coordinated with health research systems in many countries, resulting in inefficiencies, gaps and duplications. Formulate and implement mental health research priorities. Increase funding for mental health research. Invest in mental health research capacity strengthening.

Research about the impact of the **tobacco** consumption among the population. Including economic aspects, social aspects and political aspects.

In developing countries **drug addiction** is a problem that has been alarmingly increasing. In order to take appropriate measures against the basic information on availability of drugs, its use and abuse type of drug, major crossing point, drug smuggling etc. need to be studied to save young generation of developing countries and DFID should include this kind of research in their research strategy.

Research about **pesticides** and its impact in the human health, and its indiscriminate used in the development countries. **Pesticides** use among smallholder farmers in relation to health, environment and poverty. We need to conduct research (and farmer field schools) that will lead to organic farming or something near to that. [Tanzania]

Most of the worst “killer diseases” are related to **sanitation and water supply**. DFID therefore should be supporting the provision of clean water to rural communities.

Traffic accidents – monitoring, understanding, preventing: both the engineering environment and the driver attitudes and behaviour.

DFID should support research in life saving emergency and essential **surgical and anesthesia** interventions

Tertiary level hospital data indicate that **cardiovascular diseases** have already appeared as one of the leading causes of mortality in Bangladesh but unfortunately there is no national **surveillance system** for NCDs. DFID can assist healthcare practitioners and the Government to design and implement a surveillance system that can capture this vital data.

Establish a Global **Datacenter** for Life Sciences as the first step in the process.

Extend **health data management program** you currently sponsor with the ministry of health to include (a more widespread) relationship with healthcare workers not just formal government authorities. [Nigeria]

Collaborative approach on **health informatics and telemedicine** on a national and possibly regional scale to tackle health information for both infectious diseases and noncommunicable diseases. [Nigeria]

Little to no attention has been given to **Health Informatics** Research.

We have a crying need for **better statistics** so that doctors know what the problems are, and what treatments give the best results.

Improving research into the impact of climate change

Concentrate research on the possible **resilient mechanism for rural poor** to the impact of climate change on livelihoods. More emphasis should be put on building on local innovation of rural poor on such climate change effects on weather patterns that are affecting farmers and livestock producers.

The impact of climate change on poor communities is worthy of research, but it would be far more important to invest in **demonstrations of adaptation** to climate change.

To feed our poor people we will have to **produce crops in changed climate**. To overcome such adverse situations, DFID should include research on 1) Global warming issues; 2) The impact of climate change; & 3) Crop production in adverse climate. [Bangladesh]

DFID should fund research to develop **coping mechanisms** for coastal fishermen and small farmers. Additionally, development of a reliable flood **warning system** will save a lot of lives. [Bangladesh]

For Bangladesh, DFID needs to support research and climate modelling **in-country**.

Emphasis should be on how to improve the **resilience and adaptation capacity** of communities to drought and high temperature induced changes and variability. Key issues include: water use efficiency, arresting and reversing on-going and predicted accelerated land degradation especially in semi-arid ecosystems.

Climate change is drawing a lot of interest globally, but knowledge of the subject is quite limited. Need to bring to the fore the contributions that southern Africa can make to such debates and processes, while at the same time also ensuring that the people of the region are better informed through **credible and science-based information**

There is much interest building up in the public health field about the impact of **climate change on the resurgence of infectious disease** particularly viruses, malaria and other microbes. Furthermore, there are obvious implications on depleting water resources and poverty and disease. Policy research on these areas needs to be initiated now in developing countries to initiate policy dialogue and policy development.

Climate variability and climate change are very important issues for the **fisheries sector**. [Nigeria]

Conduct research on factors influencing global warming issues arising from/linked with **agricultural practices**. [Bangladesh]

Improving research into good governance

Conceptual frameworks which can help develop **criteria and indicators of good governance** in specific sectors of national economies should be developed. So we can 'measure' them in practice.

In addition to developing the frameworks, research can then mobilise key stakeholders in the sector to define the governance objectives for a sector, out of which national standards in terms of criteria and indicators can be modelled.

Good governance is typically situation-specific, so generalities are unlikely to be the most appropriate way for DFID to invest. Instead, DFID should invest in developing **improved governance models in specific situations**, and then building upward from that experience.

Land management is a governance issue and DFID can help with large scale independent research on land reform. [Bangladesh]

To arrive at reliable data, one strategy can be that the Government provides data on various aspects and civil society organizations provide alternative data. Organizations can be identified to **strengthen their capacity to provide alternative data** for advocacy purpose for enhances the efficiency of governance. DFID can achieve two goals of good governance and research capacity building by networking and supporting organizations to produce alternative data. [Bangladesh]

What should be the **role of government**? And what should be the role of the private sector? And as a regulator, what the government should do in the health sector or in education or in any other sectors. This part of research is not there. [Bangladesh.]

We need to think about the **governance issue of development partners** as well. How much they are investing in this country and how much cost are they incurring, and how much long-term investment which will generate employment and some other facilities long-term. Questions are being raised about the usefulness of foreign aid. Some even claim that it's allowing opportunities for corruption. It is in the interest of all donors to find out how corruption can be prevented? Or even how it can be minimized?

Other emerging global trends

Microfinance as a strategy for poverty-reduction

The cutting-edge science that is much needed is in the **energy sector**. Bangladesh recently went through a transition from oil to natural gas that reduced costs dramatically as well as helped economic development in many sectors. We need a similar development in solar energy

The most important global trend requiring DFID research is the **transition from petroleum-based** economic development to whatever comes next.

Exhaustion of fossil fuels and **alternative energies**, in particular, bio energy. [Madagascar]

Gender issues

WTO's impact on developing countries especially when it comes to food security.

Migration is a very crucial issue for a country like Bangladesh, not only the international migration but also the internal migration [to cities].

There are major conflicts surrounding **faith**. So it seems we need to understand better how faith interacts with development curriculum. DFID has Global reach to study and understand broader implications of faith and development.

Micro level technology development should be prioritized. This can have effect on clean water, sanitation, arsenic poisoning, appropriate technology for marginal groups, development of indigenous technology and indigenous knowledge.

Policy development is often hampered by **inadequate evidence**, targeted at different levels, e.g.: priority setting, policy formulation, policy implementation, policy evaluation.

Enhancing research capacities

First assist in increasing the pool of people with **basic scientific** education. (In South Africa that means teaching the teachers and provision of bursaries for scientific disciplines)

Help **make science pay**. Work with industry to provide research funds to help them solve their process and product development problems. Set up advisory service in terms of registering patents for the products that really have potential.

Build capacity of professionals in developing countries to be the **LEAD authors/PI's** on studies - create trust by actually allowing this to happen!

Create opportunities for **pre-service and in-service training and career development** IN developing countries. Instead of sending a select number of professionals to western universities, train ALL professionals in-country and then work with the governments to ensure that they actually HAVE jobs once the training is complete.

Developing research capacity in developing countries is fundamentally an institutional development issue. Many developing countries have sufficient scientific expertise, but that expertise is located overseas, where research facilities, salaries, and so forth are more commensurate with their level of training. **Local centres of excellence** might be a useful means to explore.

DFID can lead efforts to constitute a **consortium of like minded funders** to develop appropriate strategies and approaches. A mini-Marshall plan might be required to have a significant impact, and a leaf could be borrowed from efforts made in the 60s and 70s to build research capacity in developing countries. The required capacity is now broader, going from capacity to conduct world class cutting edge research to capacity to work in an innovation and knowledge sharing modality that involves all relevant partners and stakeholders.

Teams from National Research Centres define common topics with Research Network on the **regional** level (for instance: ASARECA). Thus, integrated teams of national researchers and researchers of the DFID could work together and it would simplify the way how to share skills and resources.

Support and facilitate research councils and institutions of higher learning to develop **research master plans** (RMP), assist such institutions with capacity building needs as identified in the RMP and link these to research programme development

Economic development will not happen without **grass-root involvement of stakeholders** in the research process

Issues are usually complex and multifaceted and therefore require **inter/multidisciplinary holistic approaches**. They help to sensitize researchers to their own myopic solutions to complex problems, are mind broadening, and are more cost effective in the long run.

Donors need to be persuaded that **long term solutions require long term research**, longer than the conventional 3 -5 years. The changing circumstances of the farmer, demands research to be a continuous process, thus requiring **long term investment**.

Funding support for **information structures**, particularly current literature and electronically journals of world renown should be given high priority to help researchers keep current on contemporary issues and research methodology.

One can assert that the consumption of research and development information is more problematic than its production. Consequently, efforts in **increasing the consumption of this information** are likely to stimulate further production, such as the use of major indigenous languages.

Stronger ties should be promoted between national and regional/international centers of excellence; these are outfitted with 'state of the art' equipment and up to date libraries. Centers of excellence can provide superb 'refresher' opportunities for technical staff and offer researchers a chance to interact and learn from eminent scientists in addition to

updating their practical knowledge. Universities and national research institutions should cultivate **long term links** with outstanding counterparts from the developed world. Areas of collaboration could include Africa based sabbaticals for distinguished researchers and professors, and north based graduate training and attachments for gifted African researchers.

To improve research quality, donors should deal with research institutes more directly. Consideration of **local perspective and context of research agenda** may be more appropriate conditions for funding rather than relying only on protocols, standards and formats.

The little research being done is usually donor inspired and donor driven to complement their scientific information needs. **Rarely does such research seek to address local agendas and needs.**

There is still no systematic understanding of what, when, why and how research feeds into development policy. A **better understanding of how research can contribute** to pro-poor policies and systems to put it into practice, are urgently needed.

The **secondary data our research constitutes are not dependable** or not very accurate. In this regard, DFID can make a long term arrangement with certain institutions in the country for developing, or collecting, compiling reliable data.

Most of the research institutions working in Bangladesh get support for conducting research but **the institution as a whole is not supported**. As a result, institutions are struggling in trying to conduct research in it's full capacity and quality and also to keep the institution alive.

Local institutions can be identified by DFID to specialize on different topics. This helps the institution to focus and grow into a niche in the development sector as well as gain credibility and expertise for that particular topic.

The **primary problem of research is not funding per se** but a combination of interconnected factors such as inadequate planning, organizational problems, inadequate motivation of staff / researchers. There is a long list of internal as well as external factors that limit the performance of research institutions. However, between the two, the root cause of undoing research performance lies within internal factors; and any secret /key to unlock the problem must still starts from there.

Also **train researchers to be better managers of research** and more exposure to the broader issues of development e.g. understanding of livelihood issues and socio-cultural/economic dimensions causing poverty.

Positioning DFID research

Failure to invest in agriculture will probably strongly impair the chances of other programs funded by DFID on clean water, AIDS prevention and good governance will not be as fruitful as you would wish as you are in fact not tackling the root cause of poverty.

Give people an adequate diet and an opportunity to earn at least a small additional income from agriculture for their children's school fees etc. and it is likely that their well developed entrepreneurial skills will do the rest. Perhaps this is not a very populist view but it is a necessary one nevertheless and we are relying on DFID to do "the right thing".

DFID should position its research to **support the kinds of research in developing countries that is specifically targeted to provide public goods, especially to the rural poor**. This could involve working through intermediaries such as the CGIAR centres, local universities and NGOs.

Regional approaches

Identify **specific opportunities within specific regions** where research can be effectively coordinated at the regional level.

Perhaps DFID should initiate and lead efforts to develop the concept of **Regional Public Goods!**

The issue of **regional cross-learning** is very important. One mechanism which DFID used in the past and has stopped, which was very useful, was actually bringing government officials together cross-borders. Officials were able to speak to each other in a very different way than the researchers could. That was far more effective than a researcher presenting his/her understanding. DFID is recommended to revive this kind of regional research where there can be this cross-border dialogue of officials.

Bangladesh is vulnerable to the political actions of other countries (China, India for example building dams). There are so many aspects of this which are not just scientific and geological, or agricultural, but political. DFID may highlight issues that are **beyond conventional research** to get it addressed by policymakers.

Responding to user demands

Forge **better links** with end-users.

At the micro-level DFID should **improve links with development projects** which can provide valuable information to contribute to its research strategies and if research is designed as an integral part of the project research will improve delivery of programme or project targets.

Incorporating research components into development initiatives (similar to M+E, gender and communications components which are commonly embedded into development programmes) will be the most responsive way to respond to user demand at the grass roots level.

Work with '**innovation systems**' that bring together all actors in a commodity chain to address a variety of problems. The sum of the network parts is much greater than the individual institutions ... Working in such 'networks' seems to be a promising way to really articulate demands and connect them with capacities

Ask the "poor" people: **Include the communities' viewpoints** and ideas in ALL program design

Doing research better/differently

Fund alliances instead of individual organizations - encourage NGO's to work together so as to leverage resources

“**Basket funding**” for our organisations will give us room for creating thinking, institutional building and research training for members of staff.

Support international bodies such as the CGIAR but bring it more closely under the third party monitoring framework. Decentralise part of the funding to DFID country offices for same country CG center offices to complement on-going development dominant programmes and pipeline initiatives.

Initiate and **support multi-stakeholder ‘foundations’ or similar bodies** particularly existing well-established and functional councils, fora, foundations etc.

Develop a **broader programmatic approach to build capacity and strategic focus** for pro-development and pro-poor research within existing research institutions and with strong links to private sector i.e. build the linkages for private sector to link with research institutions to conduct research which will impact upon poor through increased sustainable economic growth.

Develop **research networks and public-private partnerships**. It is essential to promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to tackle common problems.

DFID can **work with other donors** to assess the situation and share long-term outcomes of each other’s projects to get a better understanding of aid effectiveness. [Bangladesh]

The multi-agency approach works if a **single agency is leading on implementation** i.e. funders are pooling their funds into an agreed management group, foundation or govt. department. It doesn’t work when different agencies in the multi-agency funding arrangement have differing roles to play (which are supposedly complementary).

Research will be best implemented by **professional international research institutions** that have a presence in target countries and regions, and have a long history of partnering with local institutions.

There are a lot of **people’s initiatives that are organized by themselves**. They are not taking any help from outside. They are even self-funded. Their resource is self managed, sometimes they are using also their own indigenous knowledge. They are running well and DFID should learn how these people’s initiatives are getting implemented, how they are solving their own problems without any outside help or support, and replicate through other peoples, to other organizations. [Bangladesh]

DFID does need to improve the **coordination of its research** globally, nationally and within DFID itself. It needs to link research more to its development dominant projects and make use of the resources and facilities available rather than separate research initiatives that may be even implemented without the knowledge of projects and country offices.

DFID needs to improve its **monitoring of research** (in fact all DFID’s work) so that intended impact is realised or otherwise (current use of impact pathways and networks will be important). More could be done to invest in ex post assessments, for which the information could be fed into future programme design.

DFID should take care **not to continue its current trend of passing on higher and higher transaction costs to agencies implementing research** by engaging them in lower overall budget, no overhead, highly competitive (by restricting funds from elsewhere), high

contributions and too many partners in multi-stakeholder projects. This will affect overall output quality and eventually result in some agencies collapsing.

Research managed out of DFID-UK through small projects (that even country offices are not aware of) are an **expensive and isolated form of research**.

The impact pathway process must be much more explicit and measurable. It is essential for DFID to support its research funding with a **separate independent monitoring unit** so that impact may be assessed accurately.

For **cutting edge science, organisations should have long experience and proven track record** in conducting research for development solutions. In comparison with many universities and poorly funded institutes, international research organizations such as those in CGIAR are more attuned to delivering solutions directly to the poor. Economies of scale will be important. Larger organizations also have an extensive network of partners who may be able to assist in the research process and the feedback loop to providing solutions

Communicating research

I would not under-estimate the research that is being done but **if the findings got to be utilized and its effect felt on the ground is a question**.

Promote **collaborative efforts** by governments, health professionals, publishers and international organizations for creating reliable, timely, high quality and affordable health care and health information systems;

Promotion of **continuous medical training, education and research** through the use of information and communication technologies;

Involving all stakeholders in the knowledge cycle;

Building **capacity** for information and communication technologies.

DFID should therefore strongly support the global movement towards **open access (OA)** to publicly funded research. Support the low cost establishment of interoperable OA institutional repositories holding an organisation's research output; Support the establishment of open access journals; Support the development of national and institutional policies for open access to publications.

Local research teams and practitioners in remote areas serving disadvantaged communities require **real access to relevant communications technology**.

DFID could perhaps look at providing a **separate IT grants to any research consortia** over and above the 10 percent minimum required for communications within such research consortia programme budgets.

Research projects should have **platform components** such as workshops with political and public service institutions participation.

Use **cell phone** technology as a means to disseminate key health messages

The access and use of research by people in developing countries depends very much on how **relevant the research** is to their needs. This research is most likely to be appropriate

when it has been **developed by scientists in the host country** for addressing problems that the host country considers to be of high priority.

Research should become an integral part of development initiatives and in this context communicating research findings would be an inexpensive component of the project, improve project delivery and reach to a much wider audience.

Currently research findings tend to be well communicated by implementing international organizations but **very poorly** by national institutions (e.g. NARS).

DFID should fund **print and especially electronic publishing of research** whether institutional or individual.

Proper **utilization of research** should be part of the research via programmes, within the research period.

The policy people do not have time to read hundreds of pages to use it. Large documentation also makes information less accessible. So **research summaries** have to be created. Perhaps some consultation is needed as well for policymakers to understand a particular research.

Researchers want their findings widely distributed, but at the same time, if there is no commercial return from dissemination, costs are impossible to maintain. DFID can help this dilemma by **purchasing the much needed researches and making it free for all**.

Many people in developing countries like **other type of media** such as Video, life program on TV, things that are visualized. Developing such media might give more open access to many people.

Videos are highly appreciated by the rural people, especially where literacy rates are low. If videos address topics of regional relevance, multiple organizations will experiment with them.

DFID could consider investing in building national capacities, e.g. by **training multi-actor communication** teams in producing regionally relevant and locally appropriate learning tools/programs.

There are various examples that show the huge impacts to be made if **appropriate learning materials are developed AND made use of**. To address the latter, DFID could also consider investing in uptake pathway research (or how to enhance pluralism and efficiency of extension).

Invest in training of multi-actor teams to develop **farmer-education videos** based on participatory research, local innovations and adult-education principles

Have writers **translate science into meaning for end-users**

Make use of the new **video-clip technology** epitomized by YouTube; seeing is believing.

Co-learning: **engage end-users as participants from the beginning** of the research process, so they learn as you go along.

It's really essential that some kind of **national/local research information scanning and interpretation mechanisms/capacity** is built up. Something that can appraise the knowledge coming in and make sure only the 'right stuff' is kept, and that it is applied to local

challenges. It's about interpreting and bridging the gap between what local actors want and what is being offered.

It is especially important that DFID support the widest possible 'open' availability of the outputs produced by the research it funds - as '**public goods**'. Ensure that the research outputs are at least public goods, preferably international public goods.

Each research project needs **targeted 'marketing' strategies** to get their specific results accessed and used.

Preferential information access and rates for verified developing country researchers.

In communicating research – for instance in the form of extension services - the **language used by the producers and consumers of knowledge** plays a key role. As a good majority of the consumers (of research) are small scale farmers, a language barrier creeps in. It suffices to observe that having a policy directing translation of research findings into the language accessible to stakeholders accelerates use of such findings.

How can DFID build on its work on sustainable agriculture?

Particularly in Cambodia or Asia region maybe, I think key issues to look at are followings:

1. Varieties of seeds (e.g. rice) that adapt to environmental and climate change
 2. Post harvest Value-Added of agricultural products
 3. Regional trade and marketing of agricultural products
-

DFID needs to take a strategic long view in supporting sustainable agricultural development. The RNRRS did excellent work in the 1990s but commitment to agricultural research needs to be as continuous as possible as plant pests and diseases constantly evolve.

ICRISAT much appreciates DFID's present core funding but asks DFID to bolster itself against responding to the winds of short term fashion and to make continued long term strategic investments in agricultural improvement. This may not be very "flashy" but it surely pays off in the end by benefiting large numbers of poor farmers in south Asia and sub-Saharan Africa.

For example, DFID invested over a 15 year period in the creation of a system for marker assisted breeding in the staple cereal Pearl Millet against the killer epidemic disease Downy Mildew by ICRISAT and its National Partners. The result was the first publicly funded marker assisted release of a new disease resistant hybrid in India (HHB 67-Improved) which is now spreading rapidly in Harayana and other Indian states. By preventing the "next" epidemic of the disease from occurring has, and will have over the next few years, a strong positive benefit to small scale farmers.

Many other examples can be cited but the moral of the tale is sustainable agricultural systems are not brought about over night and are not usually resultant from short term silver-bullet fixes. However, a consistent investment over a number of years of key constraints to agricultural productivity can pay off handsomely in terms of improved food security and economic benefits.

In Mozambique I would suggest focusing more on the livestock sector. Particularly on support to market chain development and promotion of livestock and animal products and related industry development. This will fit in with the government objective and communities' need to make the transition from subsistence farming and traditional keeping of livestock for status rather than income generation, to small-scale commercial farming and the expansion and development of processing industries (tanneries, abattoirs, milk processing, etc)

DFID should focus on sustainable economic development in particular focus on marketing of products for export, regional but also national. Value addition for instance by different certifications; Organic, Fair Trade, EurepGap, HCCAP is an excellent opportunity for the export market and in a lot of cases not very difficult to obtain by a well established organisation/company.

In most cases I have experienced it is possible to convert conventional farmers to organic and obtain the other certifications in a sustainable way within a three year period.

Smallholders benefit from this through a secure market and an increase in price for them for the same product.

For regional and national export the demand for quality products is increasing, so also some certifications might give better market opportunities. But regional and national product value addition can be an important improvement (if done with high quality) on the product, which makes marketing again more easily

In Indonesia, agricultural sector declines because of the uncertainty. High production cost and unstable price in market are important factor that influence the uncertainty, In other hand, government policy that revokes subsidy gives more burden to farmer and environmental declining worsens the situation as well. So market security and maintaining the environment is important and relevance issue for Indonesia circumstance.

DFID should provide budget support to African governments that request expansion of their Millennium Villages

DFID can support work on sustainable agriculture through working with responsible government agencies in developing countries to adopt and implement policies that support sustainable agriculture.

It can support efforts to compile guidelines based on practical experience of actually implementing sustainable agriculture.

It can also help to define more precisely what “sustainable agriculture” means in different situations.

Food security means rice security in Bangladesh. There is a yield gap of rice production between researcher and farmer. Agronomic management practices is the most logical way to reduce the yield gap. So, to ensure the food security, DFID should pay attention for rice grower in Bangladesh.

Agriculture as currently practiced by a large proportion of farmers in developing countries especially in SSA is subsistence and therefore not sustainable, and provides minimal economic opportunities and growth. Hence the continued poor sectoral performance which is partly responsible for the recalcitrant state of food insecurity and poverty.

Key issue to focus on therefore is how to move a large proportion of farmers from subsistence to commercial or market oriented agriculture.

Over the last several years DFID has to a large extent focused on this key issue through continued support to the CGIAR and the RNRRS activities to mention just two initiatives that have produced outputs which are potentially capable of achieving the above goal above but have not, because some essential elements are missing.

It is recommended therefore that while building on the CGIAR and RNRRS type of work DFID should pay some extra attention on developing work that will improve economic opportunities and growth. Examples of such work include: how to improve market access at

national, regional and global levels at both institutional and policy domains; how to effectively inform and influence policies on farm/farmer support, and building local capacity to achieve this; how to improve the research into use concept and practice.

The nature of the agriculture in Bangladesh has changed from subsistence to cash agriculture. So, now more than ever, even small farmers have a chance to develop economic opportunities through production. But agricultural research that produces valuable knowledge for all producers does not reach the poor farmers. The poor farmers usually get second or third hand information which may not be accurate or by the time they get it, it's too late to benefit them.

Mechanism to transfer the knowledge and technology to small farmers and marginal farmers should be developed. And research should be oriented to develop technologies and knowledge suitable and appropriate for this group and not just industrial/large farmers.

There are a lot of indigenous agricultural technologies that people have initiated, specially the poor. And we have to base research on those indigenous technologies. Research needs to be done on whether it is possible to have an agro-based industry and an agro-support industry in the rural sector, which is very important for the development of the country.

Crop diversification should be emphasized to attain certain level of selfsufficiency.

Aquaculture also suffers from the same problems of access to knowledge and technology.

There are yield gaps of so many crops between researchers and farmers. We should pay attention to maintain favourable soil, water and air environment for better crop production.

In a developing country like Bangladesh, we need to consider the role of microclimate in addition to agronomic practices for sustainable agriculture. Use of pyranometer, net radiometer, PAR sensor, thermocouples, heat flow plates, psychrometers, cup anemometer, IRGA, sonic anemometer etc. will provide all aspects of microclimate of a crop field (agriculture meteorology/micro-meteorology). Researchers should make relation between microclimate and crop growth.

Farmers do not consider to include alternate crops in the cropping pattern and the bad impacts of using huge chemical fertilizers. Organic farming is highly neglected. As a result crop yield goes to decrease degrading soil environment. DFID should pay attention to work the aforesaid areas for sustainable agriculture.

In Bangladesh, farmers practise in rice cropping pattern as Rice-Rice-Rice or Rice-Fallow-Rice. Yearly budget of Carbon and Methane over rice paddy is important to make conclusion of greenhouse effect. It would be hard for world community to make sustainable agriculture if we do not consider the nature and rate of greenhouse gas emission from crop fields. DFID should also pay attention to conduct research on factors influencing global warming issues during agricultural practices in future research strategy.

This question covers both the research approach, the mechanism for research working for the poor and the thematic areas for the research initiatives.

The ways to do research better will be through using a number of funding streams underpinned by a dedicated and focused third party team responsible for monitoring impact pathways and networks.

The funding streams might be:

- i. Supporting international bodies such as the CGIAR but bring it more closely under the third party monitoring framework. Decentralise part of the funding to DFID country offices for same country CG center offices to complement on-going development dominant programmes and pipeline initiatives.
- ii. Initiate and support multi-stakeholder 'foundations' or similar bodies particularly existing well-established and functional councils, fora, foundations etc.
- iii. Develop a broader programmatic approach to build capacity and strategic focus for pro-development and pro-poor research within existing research institutions and with strong links to private sector i.e. build the linkages for private sector to link with research institutions to conduct research which will impact upon poor through increased sustainable economic growth. The REFPI and SUFER projects in Bangladesh were successful in doing this but only to a limited degree. The projects were limited to Departments and thus unable to impact upon institutional change.

These may be regarded as pilots or models to build upon.

Agriculture is the major occupation for the rural dwellers in Nigeria. Most of them do not have access to timely information especially on new innovation and small technologies that can aid their work on the farm. Because of this and poor infrastructural facilities in the rural areas, youth are not interested in agriculture in Nigeria. More efforts are put into farming but little and at times no yield discourages farmers from agriculture. These are just some of the problems in agriculture in this country.

To address the above mentioned problems, we need multi-disciplinary steps to be taken simultaneously.

First, improvement in the rural infrastructures will attract youth into agriculture and make the future of sustainable agriculture brighter in Nigeria. This can be done through some NGOs in Nigeria. They can be identified in some of the Geo-political zones and the assignment will be done perfectly.

Second, we need extension officers on the field, who will be able to go to the farmers and give the farmers timely information. This can also be done through NGOs. The mass media methods can be employed to reach a large number of farmers at the same time. This can be done through the use of local dialects of the farmers.

Grants to some farmers can also help in promoting sustainable agriculture.

Climate variability and climate change are very important issues for the fisheries sector. I currently work on rural fishing livelihoods and climate risks resulting from increasing storm surges and heavy rainfall in Nigeria's southwest coastal areas.

How can DFID improve research on “killer diseases” and healthcare?

DFID has very proactively facilitated AIDS control activities in a few selected Indian states in phases I and II of the National AIDS Control Programme of India. The role needs to be maintained with the same effectiveness as there is some likelihood of dilution of the activities and some blurring of the focus now that the entire financial support is to be merged in the common kitty.

The DFID may continue the support (more importantly the technical support) to facilitate and strengthen the chalked out activities for the NACP-III and also augment the support in a similar fashion for Malaria and Tuberculosis as per the projects being financed by the GFATM.

The emphasis may be laid on socio-cultural and behavioural aspects of the various facets of the etio-pathogenesis and progression of these infections/diseases rather than just biological/medical aspects of the diseases through better involvement of the infected and affected communities.

The academic institutions may be supported and organizational capacities for operations research be enhanced by the DFID in a supplementary and complementary manner to strengthen the ongoing activities and projects.

The national and state level technical support institutions may be strengthened to generate strengthened preventive and care, support and treatment activities for the diseases. The research organizations like ICMR, NARI, NIV, NICD, NTI, TRC, medical universities/colleges etc. may be provided earmarked funds for the identified areas of studies as approved by a technical body of the DFID with representation of the concerned people/organizations.

I would like to suggest that DFID research about the impact of the tobacco consumption among the population, including economic aspects, social aspects and political aspects. It's important research about pesticides and its impact in the human health, and its indiscriminate used in the development countries.

In my view deep ignorance is the main culprit and cause of “killer diseases”. I was such a victim myself. An innocuous headache was diagnosed as a “cystic craniopharyngioma” (1984) which lead to a craniotomy and post-operative meningitis (surgical neglect), coma for 4 days (2 months after surgery) and HGH deficiency as a sequel besides an emergency stenting for a coronary block. The effect of HGH deficiency on cholesterol metabolism deserves deep study.

I propose an integrated, holistic, evidence based approach to investigation of “killer diseases”. These are Acute Coronary Disease, Childhood Malignancies, Infectious Diseases (Meningitis to be precise).

I propose the establishment of a Global Datacenter for Life Sciences as the first step in the process.

The work of the DFID has been positively dramatic, I can say because I currently work (temporarily though) as a medical officer of health in Kano state.

Concerning the health data management program you currently sponsor with the ministry of health, I will propose that you extend it to include (a more widespread) relationship with healthcare workers not just formal government authorities.

As you might know, most of the healthcare encounters do not take place in such arena - you'll be seeing just a tip of the iceberg. A more pervasive approach, employing the new tools of the century such as telemedicine and web 2.0 will be possible - the Gsm networks are penetrating all areas and internet connectivity is fast spreading.

I will propose a DFID sponsored collaborative approach on health informatics and telemedicine on a national and possibly regional scale to tackle health information for both infectious diseases and noncommunicable diseases. I currently consult as a health informatician and serve on the board of the Association for Health Informatics of Nigeria.

Community behavior and awareness is an important factor to control disease spread. Without community involvement, it is impossible to stop diseases spreading. Efforts addressed to improve the life style and awareness of the community should be done.

There is this area which I suggest you should look into. Pesticides use among smallholder farmers in relation to health, environment and poverty. Apart from cotton and coffee, vegetable farming is increasingly becoming commercial and attracts considerable use of pesticides.

My experience in Tanzania which is not different from many other countries, use of pesticides by these farmers poses a very unhealthy situation. The so-called profit, at the end of the day, is a big zero that results from health care as a result of acute and chronic effects of these chemicals let alone other losses like losses of beneficial organisms etc. We need to conduct research (and farmer field schools) that will lead to organic farming or something near to that.

I would like to suggest that DFID research pay attention to strengthening the primary health care sector, in an integrated way, so that both communicable and non-communicable disease, including mental disorders are addressed, partly as they each pose major burdens, and partly as they inter-relate, so NCDs cannot be solved without concomitant attention to the NCDs. Likewise health promotion should include mental health promotion, and it would be helpful to research effective ways of population delivery.

We need to know about the best ways of ensuring adequate support and supervision to PHC, most effective mode of delivery of Continuing Professional Development and guidelines, most effective ways of using HMIS at local level, most effective and sustainable methods of outreach from PHC to chronic cases in the community; shared care with traditional healers (and work to reduce harmful practices such as use of non-sterile razor blades); research into traditional herbs; research into best way of developing district staff skills to contribute to district annual operational planning; and research into delivery of prison health care.

Most of the worst "killer diseases" are related to sanitation and water supply. DFID therefore should be supporting the provision of clean water to rural communities. The supply of bed-

nets has proven effective in addressing malaria, another killer disease. Further research and development is required on appropriate vaccinations against childhood diseases.

According to a report by the GFHR on 'Research capacity for mental health in low- and middle-income countries': "Mental and neurological disorders are responsible for 13% of the global burden of disease. In addition, more than half of the 10 leading risk factors that cause one third of premature deaths worldwide have behavioural determinants, such as unsafe sex, tobacco or alcohol consumption, etc. Despite this evidence, mental health is a neglected and an under-researched area of public health, particularly in low- and middle-income countries."

"The survey results showed broad agreement among researchers and other mental health related stakeholders, and across regions, regarding priorities for mental health research in LMICs. Epidemiological studies of burden and risk factors, health systems research, and social science research were the highest ranked types of needed research. Depression, anxiety, substance use disorders, and psychoses were identified as the top three priority disorders, while prioritized population groups were children and adolescents, women, and persons exposed to violence/trauma."

Recommendations

- Integrate with health research systems. Mental health research is not well coordinated with health research systems in many countries, resulting in inefficiencies, gaps and duplications.
 - Establish governance and monitor progress in mental health research. A central planning unit involving the government, donors, research institutions and nongovernmental organizations (NGOs) should be established to ensure that national and regional mental health research issues are addressed.
 - Formulate and implement mental health research priorities. A major effort is needed to ensure that all countries and institutions base their resource allocations on the burden of disorders, the main determinants of health and social justice. A priority-setting process that is transparent, participatory and scientific is needed to achieve these ends.
 - Increase funding for mental health research.
 - Invest in mental health research capacity strengthening.
 - Develop research networks and public-private partnerships. It is essential to promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to tackle common problems.
 - Connect with information networks in health research.
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Emerging priority areas for research in healthcare could include the following:

- urbanization and its implications on health and disease
 - child health and its relation to community development
 - disability: equity and access to healthcare
 - health promotion effectiveness
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In developing countries, recently we have seen an increase in finance allocation to Ministries of Health. However access to essential health package is still a major challenge for poor women and men. I would like to suggest that DFID research should consider health services and health system research. We need more research on cost effective (both provider and

community perspective) ways or strategies for delivering essential health package (which includes killer diseases) at community level.

We also have a lot of resources going into HIV/AIDS programmes/National Commission, but very limited/little impact on transmission. More research is required around prevention, role of traditional/social institutions in reversing the trends.

We need research on better drugs and diagnostic tools that would increase early access and treatment and reduce costs incurred by patients.

(1) promotion of collaborative efforts by governments, health professionals, publishers and international organizations for creating reliable, timely, high quality and affordable health care and health information systems;

(2) promotion of continuous medical training, education and research through the use of information and communication technologies;

(3) involving all stakeholders in the knowledge cycle; and

(4) building capacity for information and communication technologies.

DFID should focus on the healthcare systems and the institutional management of healthcare. We recommend to DFID that they develop public health management capacity. Health sector financing is very important area and DFID has made a lot of contributions in mechanisms for the Government. Research should be undertaken for successful implementation of maternal health development schemes and identify the gaps in the extant schemes to provide care.

Research should also be undertaken for some mechanism of health financing that could be something like health insurance. Because these maternal schemes are donor funding dependant and Bangladesh cannot continue on that for long. So we need to find some alternative strategy for health financing particularly for the poor.

The poor countries usually face the problems of communicable diseases due to demographic conditions, but there seems to be an epidemiological transition from communicable diseases to non-communicable diseases (NCD) in the developing countries. Major NCDs are cardiovascular diseases, diabetes, cancer and chronic respiratory conditions.

Tertiary level hospital data indicate that cardiovascular diseases have already appeared as one of the leading causes of mortality in Bangladesh but unfortunately there is no national surveillance system for NCDs. This will be a huge challenge in the next 15 to 20 years. DFID can assist healthcare practitioners and the Government to design and implement a surveillance system that can capture this vital data.

In developing countries drug addiction is a problem that has been alarmingly increasing since last several decades affecting social and economic activities of young generation. Drug addiction hampers the mental and physical strengths of human being. It can lead to harming ones body, causing problem in family structure, and contribute to the delinquency in society. Some social hazards viz., terrorism, hijacking, stealing, robbery, etc. may happen due to drug addiction. Changes in social behaviour towards are to increase extortion, increase personal and family expenditure, loss of interest in education, changes in morality.

Drug (Like cannabis) use affects virtually every organ system of the body, from the central nervous systems to the cardiovascular, endocrine, respiratory, and immune systems.

Students or youths using marijuana might have their brain impaired, lack creative minds, and the ability to think properly. Youths are mostly drug pushers and traffickers who get money from the drug dealers.

The most commonly used drugs, are cannabis (equivalent to ganja), phensidyl, sedatives and heroin. Other drugs, namely buprenethazine, diazepam, promethazine, synthetic opiates such as pethidine and morphine are also commonly injected drugs in South Asian countries.

The drug phensidyl has become increasingly popular among drug users. Phensidyl is readily available and remains the most visible illicit drug. It requires no prescription. Drugs addiction has become a disastrous problem for the social environment of developing countries. People from almost all age groups from young generation to middle age are either directly involved as drugs addicts or associated with drug business. Almost every day one could hardly miss news or information on drug abuse, drug trafficking or people caught in some kind of drug business, both at national and international level.

In order to take appropriate measures against the basic information on availability of drugs, its use and abuse type of drug, major crossing point, drug smuggling etc. need to be studied to save young generation of developing countries and DFID should include this kind of research in their research strategy.

Take broader perspective when considering healthcare beyond the facilities and medicines. Current research in Africa shows that targeting people for a particular kind of small scale aquaculture for people with HIV and AIDS can result in dramatic benefits in health and coping with the disease. Much more needs to be done in this area.

Fish play a very important role in nutrition especially for the young and vulnerable. Research can develop this further by understanding its nutritional benefits in the context of poor people's dietary regimes, seasonality and species having special dietary importance e.g. in Bangladesh one species of fish previously of little value has found to be extremely important for the provision of much needed Vitamin A.

I am concerned little to no attention has been given to Health Informatics Research, Informatics in General, Nothing on Knowledge Management Research. Nothing on Knowledge Economy Research , either from external funders or government locally. We do know that EU does have funding for e-health but some of us hardly know where this funding is and again some of it is locked in government with all the red tape involved.

Also, I must mention that DFID funding has been difficult to access because of its ties with government. If government has not thought about some research which one considers important for the country such research is not supported by DFID in my own experience. I was wondering then to what extent will this future research agenda be dependent on local government approval. I think DIFID in planning future research agenda must revise the way in which this funding can be accessed. How do we avoid this bottleneck in the future?

WHO addresses 'surgery' as a public health issue, through a horizontal program, to respond to the unmet need of life saving emergency and essential surgical and anaesthesia interventions (in killer diseases: road accidents, domestic violence, burns, falls, pregnancy

related complications, congenital defects and infections) at primary health care facilities in developing countries.

Currently, there is lack of data on the availability of these treatable surgical conditions. WHO established a Global Initiative for Emergency and Essential Surgical Care and developed an Integrated management on Emergency and Essential Surgical Care (IMEESC) training and reference tools, for strengthening capacities at various levels of care (website below, for recent media release and lancet paper).

DFID should support research in the above area to reduce the 'killer diseases' with a diagonal approach, producing evidence that:

- basic surgical and anesthesia services are not available (due to lack of trained human resources, or equipment/supplies) at these primary health care facilities
- improving the quality of these services would make a difference to child and maternal death and disability.

We have a crying need for better statistics so that doctors know what the problems are, and what treatments give the best results.

Therefore recommend DFID fund the establishment and operation of clinical registries (as per the S A Heart Association's Cathlab registry) to provide this basic information. This should be done using a single database of patients.

High levels of unemployment and an influx of migrants contribute to a large portion of our nation living in poverty.

Hence solutions for better life include support for practical training and development of employment opportunities.

DFID should facilitate and fund industry/academic R&D of vaccines as these are likely to make the greatest healthcare impact on killer diseases. DFID is also in a unique position to foster developed/developing world collaborations on vaccine development.

How can DFID improve research into the impact of climate change?

Conduct surveys into the current technology and emissions of giant industries ... assist them in process redesign and updating of capital equipment. Remeasure emissions after changes.

On Climate change, I think DFID should concentrate their research on the possible resilient mechanism for rural poor to the impact of climate change on livelihoods. More emphasis should be put on building on local innovation of rural poor on such climate change effects on weather patterns that are affecting farmers and livestock producers.

Such research should aim at making projections or future scenarios in order to advise policy makers and development players to put in place contingency mechanism.

The impact of climate change on poor communities is worthy of research, but it would be far more important to invest in demonstrations of adaptation to climate change. This could include, for example, helping to adapt crops to changing climatic conditions.

Pressure of continuously increasing world population has grasped the green spaces for housing, industries, cities, roads etc. enhancing the production of various greenhouse gases. Greenhouse Effect causes global warming and the scientists consider that the "recent climate change" we observe is due to "global warming". Global warming will cause the melting of snow causing sea level rise. Global warming will also change the precipitation patterns of the world means some new places will be heavily precipitated causing short time flood (crops will go under water) and some other places will become arid (crop will suffer from shortage of water).

To feed our poor people we will have to produce crop in changed climate. To overcome such adverse situations, DFID should include research on 1) Global warming issues; 2) The impact of climate change; & 3) Crop production in adverse climate, in their research strategy. To produce crop in adverse climate (arid/wet) researcher should adopt new cultivation practices, new cropping system, and new cropping pattern considering soil, water and air environment observing locally.

Climate change has broad ramification and relates to aquaculture, agriculture, coastal flooding, labour and healthcare.

The coastal fishermen are the first victims of climate change. Small farmers are also affected.

Bangladesh is not vulnerable in the sense that the water level has reached highest here compared to the rest of World but because the poor, lacking any coping mechanisms or capacity, cannot recover from the changes in the climate. So we have to assess what is going to happen in next 50 years.

DFID should fund research to develop coping mechanisms for coastal fishermen and small farmers. Additionally, development of a reliable flood warning system will save a lot of lives.

For Bangladesh, climate change is a special issue. There is hardly any research, specially in climate modelling in Bangladesh. The country has to depend on the forecast by models outside the region, the region that is very special in the fact that it is a low lying delta. So, if any research has to be done on the impact of climate change on poverty or environment or so in this particular region, Bangladesh has to develop its own modelling capabilities in this particular area. DFID should focus to support the research in this specific area.

Emphasis should be on how to improve the resilience and adaptation capacity of communities to drought and high temperature induced changes and variability. Key issues include: water use efficiency, arresting and reversing on-going and predicted accelerated land degradation especially in semi-arid ecosystems. The Integrated Genetic and Natural Resources Management approach would be a good model to refine, adapt and adopt. The model incorporates the use of adapted germplasm, appropriate management of resources including water, land and all it bears, as well as land rehabilitation especially through biological approaches, i.e. bio reclamation of degraded lands.

My organisation, the Southern African Research and Documentation Centre (SARDC), is interested in contributing to the climate change discussions and processes. Our key interests are in the areas of publicity and awareness raising with a focus on southern Africa. Climate change is drawing a lot of interest globally, but knowledge of the subject is quite limited, particularly in developing regions such as southern Africa. Research for Development initiatives would therefore bring to the fore the contributions that southern Africa can make to such debates and processes, while at the same time also ensuring that the people of the region are better informed through credible and science-based information

There is much interest building up in the public health field about the impact of climate change on the resurgence of infectious disease particularly viruses, malaria and other microbes. Furthermore, there are obvious implications on depleting water resources and poverty and disease.

Policy research on these areas needs to be initiated now in developing countries to initiate policy dialogue and policy development.

How can DFID improve research into good governance?

In South Africa, work with organisations such as the Free Market Foundation to identify problem areas and to examine the legislation, infrastructure against global best practice.

As regards areas of focusing governance research, my view is that the notion of good governance is a loaded concept with clear conceptual boundaries to aid systematic analysis and empirical application.

Therefore, to focus its policy relevance, I suggest that conceptual frameworks which can help develop criteria and indicators of good governance in specific sectors of national economies should be developed. For example, in the forestry sector of Ghana, and in fact almost all sectors, policy discourse is dominated by promoting good governance; while we know the general principles such as representation of voices, transparency, equity etc, it is not very clear how we can 'measure' them in practice.

In addition to developing the frameworks, research can then mobilise key stakeholders in the sector to define the governance objectives for the sector, out of which national standards in terms of criteria and indicators can be modelled.

Lastly, what policy reforms and institutional arrangements including those that help to mediate diversity (for e.g civil society representation), and to integrate marginal actors into the policy community can be identified. At the end of the day, Policy Briefs can be a critical output of such research projects.

Good governance is typically situation-specific, so generalities are unlikely to be the most appropriate way for DFID to invest. Instead, DFID should invest in developing improved governance models in specific situations, and then building upward from that experience.

A very important area that affects poverty and agriculture in Bangladesh is land distribution. Ideally, land management is a governance issue and DFID can help with large scale independent research on land reform.

To arrive at reliable data, one strategy can be that the Government provides data on various aspects (population, econometrics, geographic, etc.) and civil society organizations provide alternative data looking at things from another perspective. That will create an opportunity to enhance the efficiency of the governance system of the country.

Organizations can be identified for strengthening their capacity to provide alternative status for advocacy purpose for enhances the efficiency of governance. DFID can achieve two goals of good governance and research capacity building by networking and supporting organizations to produce alternative data.

What should be the role of government? And what should be the role of the private sector? And as a regulator, what the government should do in the health sector or in education or in any other sectors. This part of research is not there. Although there is research on the role of government moving away from regulator, more research is needs to be done on that in Bangladesh.

What other emerging global trends should DFID research address?

Microfinance as a strategy for poverty-reduction
 Strengthening and implementing health policies in low resource settings
 Research ethics and human subject protection in low resource settings
 Strategies to retain trained health professionals in low resource settings and encourage those in the Diaspora to return to their homes

The most important global trend requiring DFID research is the transition from petroleum-based economic development to whatever comes next.

Most development (and a convincing argument could be made for the vast majority of development) has focussed on modalities that involve oil, either in the form of improved access to transport, agro-chemicals, pesticides, pumps for irrigation, and so forth.

But oil is beginning to decline in its availability, which will have particular implications for the poor. Increasing oil prices mean that oil-based development models will become increasingly irrelevant. DFID could usefully conduct research on what comes next.

Exhaustion of fossil fuels: The exhaustion of fossil fuels leads to a continuous rising of prices which is very hard to bear for people, in particular in developing countries. An interesting trend is now seeking for alternative energies, in particular, bio energy.

In my country, the German society of technical cooperation succeeded on helping villagers to establish forests plantations of eucalyptus to help households on producing themselves fuelwood and charcoal they need. The carrying out researches about *Jatropha*, a plant whose essential oil can be used as additive to gas-oil, seems to me more interesting. Using a technological suited procedure of extraction, this essential oil can be used as additive to gas-oil and can reduce the costs of use of cars and plant. Using a simpler technology, villagers can produce themselves the paraffin oil they need for cooking and lighting.

Promoting this culture will contribute to enhance the grower's well-being and financial income as they can either sell their production, or use it themselves. *Jatropha's* essential oil can also be used for making household's soap or candles. My colleagues and I, in the department of forestry and fish farming research (DRFP) of the FOFIFA (National Research Centre for Rural Development) wish to conduct research about the provenances of *Jatropha* which exist in our country: seeking for the well-suited provenance which would give the best results in terms of quantity and quality for the different ecological regions which exist in our country. We are sad not to obtain the funding we need for it.

Gender issues are an ongoing important issue for the countries in the South. Maternal mortality is of vital importance. Trafficking is a very important as a gender issue and also as a cross-national issue.

Although WTO, as an issue, is not new, its implications are yet to come. Just what sort of a hand will be dealt to the countries of the South in terms of making trade free and it's implication on the country is yet to be seen. DFID should follow WTO's impact on developing countries especially when it comes to food security.

Migration is a very crucial issue for a country like Bangladesh, not only the international migration but also the internal migration. There is rapid urbanization (or "slumalization") especially for countries in South. It has been predicted that Dhaka population will multiply many times. Nearly 16% in 2008 even in the slums. So this is an emerging issue which falls under migration but specific to urban areas and living in the pre-urban areas. This will pose real challenges, not only socially, but also health-wise and many other things we never have experienced. This is an area worth investigating and investing money on for DFID.

As it is evident in the daily news, there are major conflicts surrounding faith. So it seems we need to understand better how faith interacts with development curriculum. DFID has Global reach to study and understand broader implications of faith and development. This kind of work should be continued to better understand the World and position development initiatives most effectively.

In an article carried in our local Automobile Association Winter 2004 edition of AA Traveller they quoted the following statistics: 1,2 million people worldwide are killed each year on the roads - more than 3000 people every day. 50 million people worldwide are estimated to be injured in road crashes each year. The global financial cost of road traffic injuries is US\$518bn each year. For men aged 15 to 44, road traffic injuries rank second (behind HIV/AIDS) as the leading cause of premature death

By 2020, unless action is taken, road traffic injuries are predicted to rise by about 65% and Low and middle-income countries account for more than 80% of global deaths from road traffic crashes

In view of the above I would like to suggest that some of the monies which are available be spent in addressing establishment of information to solve the root causes of traffic accidents.

There are however two sides to the equation... the engineering environment and the driver attitudes and behaviour.

Hence my proposal is that the research should encompass both these aspects.

a) Conducting a series of road safety audits in partnership with bodies like the South African Road Federation (independent body with national recognition) with the intention of

- i) producing engineering guidelines in terms of most common errors or situations to be avoided
- ii) providing road transport authorities with documents to enable them to improve the engineering aspects of accident "hot-spots"
- iii) Transferring road safety knowledge and audit skills to the local communities.

b) Gather statistics using modern (?mobile phone) technology to capture on a single (internet) server, essential elements of accidents.

e.g. gps coordinates, type of accident (head/on, cross over, rear-end, multiple cars, single car), driver demographics and physical condition (drunk / attitude etc) prevailing weather conditions, number and type of deaths and injuries.... with the intention of tracking the most likely situations to result in accidents plus providing the ability to monitor the effect of interventions

c) Conduct psychological research amongst drivers, segmented by those who have been involved in accidents... with the intention of developing school based and learner driver attitude tests and counseling guidelines.

Availability and accessibility of internet and IT infrastructure related to economic development.

How can DFID improve the way research responds to user demand?

Establish database of leaders within relevant associations / companies from each country. Work with universities and special interest groups / associations to identify individuals who are capable of contributing/conducting useful research.

Support "off the wall" ideas.

Continue to conduct surveys such as these.

User demand for research depends very much on what users are being asked. For many governments, useful research is perceived as somewhat threatening, for example, the state of forests in a country.

DFID should invest in helping to establish "reality" in the status and trends of natural resources, irrespective of what the governing parties in the affected countries might prefer.

Forge better links with end-users.

At the micro-level DFID should improve links with development projects which can provide valuable information to contribute to its research strategies and if research is designed as an integral part of the project research will improve delivery of programme or project targets. Incorporating research components into development initiatives (similar to M+E, gender and communications components which are commonly embedded into development programmes) will be the most responsive way to respond to user demand at the grass roots level.

The current practice of research and development projects being almost two completely separate entities is a waste of valuable resources and missed opportunities.

A key notion I picked up from recent discussions and reading is 'innovation systems.' The contribution by FARA - <http://r4dconsult.wordpress.com/2007/11/18/fara-contribution-to-dfid-research-consultation/> - explains how it is used to bring together all actors in a commodity chain to address a variety of problems. The sum of the network parts is much greater than the individual institutions ...

Working in such 'networks' seems to be a promising way to really articulate demands and connect them with capacities - especially local capacities that are often overlooked as they are somehow in another institutional or sectoral 'silo'

This can be identified by situational analysis of key institutions in the countries. For example we in ALGAK would be interested on the issue of Governance. Specifically three areas would of most benefit to us. These are Good Governance at the local Authority level, Decentralization of powers and responsibilities from central government to local government, The kind of capacity building that such decentralization would entail at the local level, and how to communicate the result of such research to the beneficiaries.

How can DFID best support cutting-edge science that benefits poor people?

ASK THE "POOR" PEOPLE!!!! Include community viewpoints and ideas in ALL program design

Fund alliances instead of individual organizations - encourage NGO's to work together so as to leverage resources

Pro-active funding of projects/programmes directly applicable to DFID's aims. For example, if vaccines will make the biggest health impact, then DFID should seek out and fund vaccine development projects.

Need to understand the needs of the poor... which may differ by country. Then conduct global search for solutions / people capable of conducting research within the maximum impact areas. Support the set up of companies with the capabilities to implement the solutions.

Cutting-edge science that benefits poor people requires a delivery mechanism and a willingness on the part of the host government to actually enable the poor people to benefit from such research. Various forms of biotechnology (including genetic modification, but going far beyond GM) offers one useful dimension.

With the increase in Global population, especially in the developing countries, micro level technology development should be prioritized. This can have effect on clean water, sanitation, arsenic poisoning, appropriate technology for marginal groups, development of indigenous technology and indigenous knowledge.

To benefit the poor, the cutting-edge science that is much needed is in the energy sector. Bangladesh recently went through a transition from oil to natural gas. The technologies that were developed to harness this domestic resource was simple and easy to integrate into the current infrastructure. It reduced costs dramatically as well as helped economic development in many sectors. We need a similar development in solar energy

There are two aspects to this, i) the mechanism by which cutting edge science is delivered and ii) the monitoring process to ensure delivery is to the poor and to what extent.

The impact pathway process must be much more explicit and measurable. It is essential for DFID to support its research funding with a separate independent monitoring unit so that impact may be assessed accurately.

For cutting edge science, organisations should have long experience and proven track record in conducting research for development solutions. In comparison with many universities and poorly funded institutes international research organizations such as those in CGIAR are more attuned to delivering solutions directly to the poor. The Economies of scale will be important. Larger organizations also have an extensive network of partners who may be able to assist in the research process and the feedback loop to providing solutions

How can DFID help developing countries increase their research capacities?

For researchers like myself in developing countries we need more resources for both individual and institutional capacity strengthening. "Basket funding" for our organisations will give us room for creating thinking, institutional building and research training for members of staff.

First assist in increasing the pool of people with basic scientific education. (In South Africa that means teaching the teachers and provision of bursaries for scientific disciplines)

Create an active global alumni of people who have an interest in the different research areas.

Help make science pay. Work with industry to provide research funds to help them solve their process and product development problems. Set up advisory service in terms of registering patents for the products that really have potential.

Advocate for governments to implement policies that encourage retention of trained professionals;

Build capacity of professionals in developing countries to be the LEAD authors/PI's on studies - create trust by actually allowing this to happen!

Create opportunities for pre-service and in-service training and career development IN developing countries. Instead of sending a select number of professionals to western universities, train ALL professionals in-country and then work with the governments to ensure that they actually HAVE jobs once the training is complete.

I believe journalists have a big role to inform the society where the researchers go and have some information.

Since most of the journalist clubs/ associations are lacking in information, you have to try to see means on how you can equip them so that they can be up-to-date from what they are presenting to society for the purpose of change and development.

There is a great deficit of information (Library collection/Documentation units) in their institution, so they cannot bring out a good and quality information to the people.

Developing research capacity in developing countries is fundamentally an institutional development issue. Many developing countries have sufficient scientific expertise, but that expertise is located overseas, where research facilities, salaries, and so forth are more commensurate with their level of training. Local centres of excellence might be a useful means to explore.

This is indeed a broad agenda that no single development agency can effectively tackle. It is therefore a good candidate agenda for question 12 on working with other funders of international development research.

DFID can lead efforts to constitute a consortium of like minded funders to develop appropriate strategies and approaches. A mini-Marshall plan might be required to have a significant impact, and a leaf could be borrowed from efforts made in the 60s and 70s to build research capacity in developing countries.

Two pertinent examples are the Ghana-Guelph programme of CIDA, and the USAID programme that involved training in several American universities.

The stakes will be higher this time around however, because some of the built up capacities have been lost through attrition, brain drain and retirements.

Besides, the required capacity is now broader, going from capacity to conduct world class cutting edge research to capacity to work in an innovation and knowledge sharing modality that involves all relevant partners and stakeholders.

Moreover, fail safe checks need to be developed and in-built to minimize a significant loss of qualified, well trained and experienced personnel such as making better and full use of national and regional institutions including the CGIAR Centres, which implies building up training capacities in such institutions.

This question would be a subject of case-studies. In most developing countries, there are National Research Centres which has defined the national priorities about research and where teams of researchers are prepared to carry on research works. They have to deal with problems of insufficiency of skills and resources. The best way would be to define common topics with these National Centres, or better, with Research Network on the regional level (for instance: ASARECA: Association for Strengthening Agricultural Research for Eastern and Central Africa). Thus, integrated teams of national researchers and researchers of the DFID could work together and it would simplify the way how to share skills and resources.

One of the major impediments to research in developing countries is that it is the result of disparate individual or organizational efforts in the absence of a research system.

Possible ways in which DfID support could greatly enhance research capacities include:

- supporting and facilitating research councils and institutions of higher learning to develop research master plans (RMP), say of 5 years, with clearly defined objectives
- assist such institutions with capacity building needs as identified in the RMP and link these to research programme development
- research programmes to be linked to national programmes e.g. child health, prevention and control of blindness, integrated pest management, education, biodiversity, wetlands, water and sanitation etc.
- strengthen capacities for formulation of research programmes that address urgency, economic importance, scope and size of the problem, people affected, benefits of research in relation to cost, likelihood of extensive and immediate adoption of research results etc.

Development of a sustainable healthcare, education, industrial and agricultural system through research and development was neglected, largely through donor tailored development programs.

It has become apparent that Africa's economic development will not happen without grass-root involvement of stakeholders in the research process owing to the enormous diversity of peoples, cultures and environments on the continent.

Issues are usually complex and multifaceted and therefore require inter/multidisciplinary holistic approaches. They help to sensitize researchers to their own myopic solutions to complex problems, are mind broadening, and are more cost effective in the long run.

In agriculture, stakeholder involvement and gender roles have become more integrated into research agenda development, but room for farmer experimentation using appropriate approaches should be promoted to provide feedback to research. Farmers are continuously challenged to make difficult decisions in a complex bio-physical and socio economic environment.

Donors need to be persuaded that long term solutions require long term research, longer than the conventional 3 -5 years. Funding support for information structures, particularly current literature and electronically journals of world renown should be given high priority to help researchers keep current on contemporary issues and research methodology. Greater control of the research agenda will be fostered if regional governments provide direct research funding. Perhaps time has come for donor supported programs to be headed by competent Africans of reputable integrity.

There are pre-requisites laid down to quality research: problem solving, participatory, system/client oriented, and interdisciplinary. Further, research should provide answers to practical problems of immediate concern to respective sectors, identify the financial benefits of research recommendations, communicate the results in appropriate ways, and explain the mechanisms responsible for measuring results.

For research to prosper it needs a number of things, some being well formulated policies and institutional frameworks, well motivated human resources, high morale and adequate freedom for the worker to enjoy working and show initiative. Technical/capital support in form of funds, transport, software, stationery, etc are other prerequisites.

Crosscutting factors for poor performance of research includes poor infrastructure, unattractive incentive packages and motivation, lack of total commitment, organizational issues, donor oriented research outlook among researchers, economic difficulties, etc.

Improving financial management, accountability, efficiency, transparency, integrity and auditing should be strengthened. The donors withdraw and we need to establish very strong organs to deal with this area in particular.

To cope with fiscal imbalances facing governments of developing countries including Tanzania, the public research system is asked to be demand-oriented. In principle, the demand side is required to purchase research services. Demand in the context of agricultural research is the willingness and ability to buy a research service at a given price.

Demand side in many of developing countries like Tanzania, consists of small holder farmers who own on average 0.5 ha of cropped land. According to Tanzania's Poverty and Human Development Report of 2002, these are among over 36% of citizens who survive below the basic needs poverty line. To this group of stakeholders, agricultural research will remain a purely public service and hence depending on government as a main financier.

The changing circumstances of the farmer, demands research to be a continuous process, thus requiring long term investment. For example projects aiming at developing maize varieties tolerant to striga or project aiming at increasing protein content in maize could take years, but to farmers this may not be very important. They are not empowered enough in terms of education, financial and infrastructure to really demand the costly research service.

Another scenario is a profitability of research service as an investment. Demand side of research services will only contribute towards research activities if ensured of profit. But with poor infrastructures such as rural roads, information services and others, production costs increase while farm-gate prices decrease with increase in market margins. All these do not motivate farmers to purchase research services however good they are, as a result they resort to producing using their traditional methods to meet their subsistence needs.

To improve research quality, donors should deal with research institutes more directly. Consideration of local perspective and context of research agenda may be more appropriate conditions for funding rather than relying only on protocols, standards and formats.

Stakeholders in research should facilitate infrastructures development such as internet services, computing facilities and other research materials and equipments. It is evident that multiple resources investment promotes innovations in agricultural research. Government and other stakeholders should see to it that rural infrastructure is well developed, staff recruitment and training is periodically reviewed and improved. The government should also see to it that marketing of agricultural products and dissemination and publication of research findings are all supported. With such a supportive environment in place, farmers and other stakeholders will be motivated to contribute towards attaining quality research output.

Problems related with quality research tend to be multifaceted and overlapping, emanating from the users of research, the researchers themselves, the policy framework, priority setting, and lack of patience to wait for the anticipated outputs of research initiatives.

Research entails two distinct processes: the generation of a pool of knowledge, and repackaging or translating this into practical action. In communicating research – for instance in the form of extension services - the language used by the producers and consumers of knowledge plays a key role.

Since English and French are generally the language of instruction in institutions of higher learning, in most cases a communication gap exists between the producers and consumers of research and development information. As a good majority of the consumers are small scale farmers, a language barrier creeps in and this reduces the pressure that the general public would have to put on their governments.

A fierce commitment to research activities cannot be described as automatic within research staff. It is not unusual to have a long list of explanations as to why certain things can not be done for lack of funds, equipment, expertise, encouragement, etc. Curiously, ideas promoting collaborative initiatives such as joint project proposals, equipment and staff sharing are not necessarily well received because of wide-spread rivalry.

Repackaged research results in mass mobilization programmes involving video shows, theatre, traditional dance songs, and this took research results to the beneficiaries. More is to be said on dissemination of research results. Here it suffices to observe that having a policy directing translation of research findings into the language accessible to stakeholders accelerates use of such findings.

One can assert that the consumption of research and development information in SSA is more problematic than its production. Consequently, efforts in increasing the consumption of this information are likely to stimulate further production, such as the use of major indigenous languages. There is nothing in the nature of African languages which could prevent them from embracing all aspects of modern knowledge.

African research continuously suffers from the collective failure to shake off the past invoking slavery, colonialism, neo-colonialism and political instrumentalization of disorder as reasons for underdevelopment.

Underdevelopment today is largely internally perpetuated because of the lack of qualitative and adequate research in both academia and industry. The little research being done is usually donor inspired and donor driven to complement their own scientific information needs. Rarely does such research seek to address local agendas and needs.

Personally, I would not under-estimate the research that is being done but if the findings got to be utilized and its effect felt on the ground is a question.

Trained professionals are also frustrated by donor policies that have the unintended effect of overemphasizing reliance on foreign technical experts at the expense of trained nationals. Although research has expanded in recent years, the availability of quality materials and facilities are still inadequate to meet research demands and to improve quality, effectiveness, and efficiency in terms of personnel (expertise), facilities (building, laboratories) and finances (investments).

Important but simplified messages should be disseminated to adults through conventional approaches and included in school curricula. The importance of regional meetings to share findings along multi/interdisciplinary lines with stakeholders drawn from the policy maker - researcher - extension - end user continuum must be underscored.

Stronger ties should be promoted between national and regional/international centers of excellence; these are outfitted with 'state of the art' equipment and up to date libraries. Centers of excellence can provide superb 'refresher' opportunities for technical staff and offer researchers a chance to interact and learn from eminent scientists in addition to updating their practical knowledge.

Universities and national research institutions should cultivate long term links with outstanding counterparts from the developed world. Areas of collaboration could include Africa based sabbaticals for distinguished researchers and professors, and north based graduate training and attachments for gifted African researchers.

Returning graduates must be adequately remunerated and funded. It is not uncommon to find highly motivated and gifted African researchers take up senior management positions and lose their zeal for good quality research.

Despite tremendous efforts to build African research capacity, motivation to carry out high quality research is still wanting. A right mix of these ingredients is required: a) a well trained team, b) team leaders who command the respect of contemporaries, c) a 'meeting of the minds', d) a well defined research agenda, e) research managers who motivate teams and raise funds, and f) good remuneration packages for all.

Also essential to motivation is a good organizational structure that allows for research managers to be appointed on the basis of their ability to build and motivate teams in addition to publishing and possession of the necessary academic qualifications.

Researchers and their support teams should be provided with opportunities to sharpen and upgrade their skills periodically.

Without good-quality research, there can be no meaningful development. But is the quality of research in these institutions up to the mark? There is still no systematic understanding of what, when, why and how research feeds into development policy. A better understanding of how research can contribute to pro-poor policies and systems to put it into practice, are urgently needed.

The primary problem of research is not funding per se but a combination of interconnected factors such as inadequate planning, organizational problems, inadequate motivation of staff / researchers. Inadequate funding and research infrastructures need be addressed through thorough analysis of the above highlighted research sub-sector's challenges by key stakeholders and players starting from lower to higher levels.

There is a long list of internal as well as external factors that limit the performance of research institutions. However, between the two, the root cause of undoing research performance lies within internal factors; and any secret /key to unlock the problem must still starts from there.

Key changes proposed to have more effective and delivering research institutions include the paradigm shift to address relevant issues (work with the society in identifying research issues and solving development problems to make research saleable); the improved access to private and global resources and reduce dependency on public funding; and networking and partnership (scientists should start working together, beginning with internal collaboration to inter-institutional networking and peer linkages to overcome isolation).

The secondary data our research constitutes are not dependable or not very accurate. In this regard, DFID can make a long term arrangement with certain institutions in the country for developing, or collecting, compiling reliable data.

Most of the research institutions working in Bangladesh get support for conducting research but the institution as a whole is not supported. As a result, institutions are struggling in trying to conduct research in it's full capacity and quality and also to keep the institution alive.

Research involves human resources, buildings, equipments and infrastructure, which are often forgotten in the funding process. So DFID can make more provisions for supporting the development and capacity of the local researchers for capital expenses.

Information, communication and management tools including developing management capacities are also relevant. Essentially production of world class research cannot be expected in an environment where the building is outdated and on secondary equipment. There are a lot of Bangladeshis working abroad, in UK, in US and others. But we need to understand through research why these people cannot produce when they are put in Bangladesh. There are some institutional issues that have to be researched out.

Research funding is much needed on contemporary issues. Some of the issues emerge but institutions don't have resources to conduct study immediately. Current issues, as a result, are not being addressed appropriately by policymakers. So as we propose institutional support, some of the selected institutions can get block allocations which can be used to address some ongoing emergency issues.

Nowadays, printed and electronic media focus on various social and economic issues. There are lot of research conducted at the researcher's individual capacity which also should be focused on. But the media are more interested on institutional research. And in this context,

DFID should have some allocation of resources for research dissemination, especially through the printed media for individual researchers.

Local institutions can be identified by DFID to specialize on different topics. This helps the institution to focus and grow into a niche in the development sector as well as gain credibility and expertise for that particular topic.

Work with institutional reform of central planning bodies (e.g. in Bangladesh, University Grants Commission and Bangladesh Agriculture research Council) supported by building capacity in research management for ARIs (Advanced research Institutes).

Work has been done in this area before but through small sector based projects that cannot deliver on sustainable and permanent change. Once the institutional mechanisms for effective delivery are in place, work with research institutions themselves through competitive research grants.

Also train researchers to be better managers of research and more exposure to the broader issues of development e.g. understanding of livelihood issues and socio-cultural/economic dimensions causing poverty.

In our case I think the association and its members, the local government ministry and other stakeholders can be mobilized to carry out, access and use the research findings as they need. [local government association]

How can DFID make sure people in developing countries can access and use research?

The first three questions relating to health care, agriculture and environmental change all require global access to the world's publicly funded research findings. This is without doubt true. But because of economic constraints, most research communities in the developing world are unable to access essential research publications.

Similarly, research carried out in the developing world remains largely invisible because of publishing and distribution costs. Regional research is necessary if appropriate solutions are to be found to the world's problems. DfID should therefore strongly support the global movement towards open access (OA) to publicly funded research in the following ways:

- a) support the low cost establishment of interoperable OA institutional repositories holding an organisation's research output;
- b) support the establishment of open access journals;
- c) support the development of national and institutional policies for open access to publications.

Already, developing countries are working in these areas with success, but much more needs to be done to raise awareness and transfer technology and develop policies. DfID can make a significant difference.

The UK is leading the way in support of open access, with 6 of the 7 UK research councils mandating open access to publications arising from research they support. Additionally, the Wellcome Trust mandates OA for its supported research publications, and there are over 100 OA institutional repositories established (2nd only to the USA). UK research is thus becoming globally distributed with the economic and educational benefits that follow for the developing world. DfID should strongly support these developments, without which its aims, and those of the Millennium Development Goals can never be reached.

I add that Australia, embedded in a region of the world containing many developing countries, is making strong moves to place ALL its research on the Internet available on open access. While mandatory deposit policies are as yet restricted to only a few universities, by the end of 2007 ALL Australian universities are required to have an institutional repository which is intended to hold that institution's research, and in fact will be used for Australia's national research assessment in 2008. The situation in New Zealand is not far different.

Actually we are delighted to encourage developing countries to make their research more accessible, and will assist if asked. This is the other side of the Open Access deal: we make our research available to you - you reciprocate. Everybody wins. It is a simple corollary of the Internet revolution in that it returns scientific research to being freely available to anybody with an interest.

I strongly encourage DfID to bring in a policy stating that all developing countries should require their state-established universities to:

- (a) deposit the text of each and every refereed publication in an local university repository, at the time of submission of the final draft or a few days thereafter, and
- (b) as the publishing contract with the publisher permits, advise the repository managers (or

the software) of the date when the deposit will become open access (ie available to all, free). (Before that the text is restricted, but its existence is still available to all through search engines such as Google and Google Scholar.)

This implies that each university should have a repository, or belong to a group that has one. The basic costs are low. The more people adopt this policy, the more open the world's research becomes. It is another case of "think globally, act locally".

Key institutions can be sensitised and made to make commitment on how to use the findings ALGAK would use the findings to implement its mandates of: Lobby government and other stakeholders on the attainment of autonomous and accountable local government system in Kenyan local authorities; Advocate for Good Governance in local authorities and; Capacity build our members on the provision of efficient and effective local government services at our local level

Research coalitions funded by DFID are being asked to prioritise communications in their programmes but without real access to relevant communications technology local research teams and practitioners in remote areas serving disadvantaged communities cannot do so effectively.

DFID could perhaps look at providing a separate IT grant to any research consortia over and above the 10 percent minimum required for communications within such research consortia programme budgets.

Communicating both research findings and grass roots level difficulties would then become more inclusive. Information would not only come from the laptop/computer level. If the idea is to encourage communication between practitioners, policy makers and researchers then a more equitable distribution of technology would help.

With regards to how to make it likely for countries to use results, I think research projects should have platform components such as workshops with political and public service institutions participation. Again, making the production and dissemination of Policy Briefs critical outputs can help. In Ghana, a useful intervention could be to create a special unit within the Council for scientific and industrial research to receive summaries of research results from all corners and build a database. This may require donor support.

There is a high illiteracy rate in developing countries. So, written material or internet website, would be impossible for outreach. But many people in developing countries like other type of media such as Video, life program on TV, thing that visualized. Developing such media might be have more open access to many people.

People are very sensitive to what directly affects their daily life. Sophisticated research or too much scientifically without a proof on its short-term impact on people livelihood, may not be drawn interests for many people in developing countries. Although I think the result of the research will be benefited to people in a long-term period, I think practical thing that to prove it need to be simultaneously introduced and shown to the people, so that they are well aware and recognize the important of research and subsequently they use it

Use cell phone technology as a means to disseminate key health messages

The access and use of research by people in developing countries depends very much on how relevant the research is to their needs. This research is most likely to be appropriate when it has been developed by scientists in the host country for addressing problems that the host country considers to be of high priority.

As mentioned research should become an integral part of development initiatives and in this context communicating research findings would be an inexpensive component of the project, improve project delivery and reach to a much wider audience.

Research managed out of DFID-UK through small projects (that even country offices are not aware of or staff on their projects) are an expensive and isolated form of research.

Currently research findings tend to be well communicated by implementing international organizations but very poorly by national institutions (e.g. NARS).

If research findings are not properly and timely disseminated, it's as if no research was done. The Internet is a very useful tool for giving access but it is very costly for Bangladesh.

Additionally, there can be some technical expertise barriers. DFID should fund print and especially electronic publishing of research whether institutional or individual. Proper utilization of research should be part of the research via programmes, within the research period.

There is a wide gap between research and policy. The policy people do not have time to read hundreds of pages to use it. Large documentation also makes information less accessible. So research summaries have to be created. Perhaps some consultation is needed as well for policymakers to understand a particular research.

Access also leads to Intellectual Property Rights (IPR) issues. Researchers want their findings widely distributed, but at the same time, if there is no commercial return from dissemination, costs are impossible to maintain. Only large donors, like DFID, can help this dilemma by purchasing the much needed researches and making it free for all. This way, both the researchers and the users benefit.

How to ensure end-users benefit from research is a very old, and hence a difficult one to answer, question.

Robert Rhoades, working at CIP in the early 1980s, emphasized the need for researchers to focus on underlying scientific principles (in this case diffused light storage) rather than on ready-made potato storage designs when working with farmers. I believe when communicating science we have a great opportunity in drawing on this insight. In fact, for the past 5 years we have been testing the scaling-up potential of farmer-education videos, that were produced based on this insight. The video project was initially funded by DFID, as part of the PETTRA project in Bangladesh.

Although the seed health videos were made in Bangladesh, they have by now been translated into 15 African languages and complemented by African-made videos. Videos are highly appreciated by the rural people, especially where literacy rates are low.

If videos address topics of regional relevance, multiple organizations will experiment with them, e.g. NARO in The Gambia managed to get the videos broadcast on the national TV; IRAG with the national extension service in Guinea showed the videos in various villages the evenings before market days and later on the rural radio interviewed women to share what they had learnt.

DFID could consider investing in building national capacities, e.g. by training multi-actor communication teams in producing regionally relevant and locally appropriate learning tools/programs. A new approach to achieve maximum impact in communicating science to farmers was recently developed, and is called zooming-in zooming-out or ZIZO (see ref below, paper available upon request).

Van Mele, P. 2006. Zooming-in, zooming-out: a novel method to scale up local innovations and sustainable technologies. *International Journal of Agricultural Sustainability*, 4(2), 131-142.

There are various examples that show the huge impacts to be made if appropriate learning materials are developed AND made use of. To address the latter, DFID could also consider investing in uptake pathway research (or how to enhance pluralism and efficiency of extension). An example is described in paper below.

Van Mele, P., Zakaria, A.K.M., Hosne-Ara-Begum, Harun-Ar-Rashid and Magor, N.P. 2007. Videos that strengthen rural women's capability to innovate. *Communication for Development and Social Change*, 1(3), in press.

So in brief, I recommend DFID to invest in:

1. training of multi-actor teams to develop farmer-education videos based on Rhoades' principle, participatory research, local innovations and adult-education principles;
2. extension method and uptake pathway research

Three suggestions:

- 1) Have writers translate science into meaning for end-users, through short editorial-type essays that explain the significance of research findings on a certain topic. Distribute these in a targeted manner to those who influence the outcomes. example 'What ICRISAT Thinks' at the web link given <http://www.icrisat.org/enewsletter.htm>
- 2) Make use of the new video-clip technology epitomized by YouTube; seeing is believing and with this technique those who can't get to the field, can still get an appreciation for the subject. Key is to keep the clips short! Ideally two minutes, definitely under four. Example: http://www.icrisat.org/Investors/Video_Clips/Microdosing.htm
- 3) Co-learning: engage end-users as participants from the beginning of the research process, so they learn as you go along. This can apply not only to end-users but also to stakeholders, policy makers and others who will influence impact at the end of the day.

At a recent workshop in Zambia, Mike Weber argued that it is not good enough for DFID - or RIU - to promote 'their' outputs for local use.

It's really essential that some kind of national/local research information scanning and interpretation mechanisms/capacity is built up. Something that can appraise the knowledge

coming in and make sure only the 'right stuff' is kept, and that it is applied to local challenges.

It's more than just collecting and accessing, it's about interpreting and bridging the gap between what local actors want and what is being offered.

Echoing some of the earlier comments and suggestions, I think it is especially important that DFID support the widest possible 'open' availability of the outputs produced by the research it funds. as 'public goods'.

The research4development portal is a good start. there are other mechanisms and services. More fundamental perhaps is to provide incentives for researchers and scientists to pay attention to:

availability - make sure that whatever data and information is collated and created through research is also archived/published in digital formats - that are future-proof in terms of formats; and use open formats as much as possible.

accessibility - make sure that these digital objects are described, indexed, tagged, and included in necessary systems and tools that enhance their 'findability' and accessibility, worldwide.

applicability - make sure that the messages coming out of research are disseminated and packaged in different forms and languages so that different types of audience can use and appropriate them.

All of this means ensuring that the research outputs are at least public goods, preferably international public goods. The intellectual property and licensing is also important, we want the knowledge to flow and be re-used, so the licenses should be appropriate.

For the appropriate purpose and the right target audience all of these suggestions can be valuable – using YouTube, translating science into short editorial-type essays, using TV and cell phone technology, training multi-actor communication teams, etc etc.

But what is the process or methodology we can use to make the best selection of the tools, products and activities?

Firstly we must separate the need for a broader strategy for providing the environment for information and knowledge to be shared vs. targeted strategies that are needed for each individual research project to get their specific results accessed and used.

Both of these macro and micro approaches are needed to have the best impact from the research.

Through their Information Marketing unit, Bioversity International has designed and is now implementing a methodology to develop marketing strategies for individual research projects for the uptake of their research results.

Many research projects incorporate different activities, tools and products that can be included in a marketing strategy such as public awareness campaigns, capacity building activities and information/knowledge products. But very few projects develop a marketing strategy that can pull these and other activities, tools and products together into a strategy where they can complement and build on each other and take into account the different

steps and hence different strategies needed along the impact pathway.

The methodology developed by Bioversity uses marketing theory and customizes it in two ways. Firstly it is customized for research for development – molding the elements of a typical marketing strategy into elements that are appropriate for research outputs being produced for development purposes. Secondly it is customized to be based on logframes that are often used for a research project and builds this into an impact pathway that can then be used for developing the marketing strategy.

Internet advisory service w.r.t. requirements for research processes... open source libraries ... Set up a Cochran Type Institute of Best Practice (Funded by subscribers who are keen in being updated on development and trends. Preferential rates for verified developing country researchers.

How should DFID position its research in the future?

DFID in the past was a strong supporter of agricultural research. It continues to be so but yet since the early 1990s its policy documentation shows less and less commitment to agricultural improvement per se.

I believe this to be a fundamental error that needs rectification.

The poor and disadvantaged are still heavily concentrated in rural areas (particularly rainfed, unirrigated rural areas) in south Asia and sub-Saharan Africa. Improved and diversified agricultural production remains a clear and relatively low cost route out of poverty and a source of increased employment opportunities. Moreover, malnutrition remains a severe problem in many disadvantaged communities and is an obvious pre-cursor to increased propensity towards chronic diseases such as malaria and AIDS.

Failure to invest in agriculture will probably strongly impair the chances of other programs funded by DFID on clean water, AIDS prevention and good governance will not be as fruitful as you would wish as you are in fact not tackling the root cause of poverty.

Give people an adequate diet and an opportunity to earn at least a small additional income from agriculture for their children's school fees etc. and it is likely that their well developed entrepreneurial skills will do the rest. Perhaps this is not a very populist view but it is a necessary one nevertheless and we are relying on DFID to do "the right thing".

The question of research positioning is less of an issue as the framework aims to cover a broader research agenda from the grassroots to policy.

The areas it does need to improve is the coordination of its research both globally, nationally and within DFID itself. It needs to link research more to its development dominant projects and make use of the resources and facilities available rather than separate research initiatives that may be even implemented without the knowledge of projects and country offices.

DFID needs to improve its monitoring of research (in fact all DFID's work) so that intended impact is realised or otherwise (current use of impact pathways and networks will be important). More could be done to invest in ex post assessments, for which the information could be fed into future programme design.

DFID should take care not to continue its current trend of passing on higher and higher transaction costs to agencies implementing research by engaging them in lower overall budget, no overhead, highly competitive (by restricting funds from elsewhere), high contributions and too many partners in multi-stakeholder projects. This will affect overall output quality and eventually result in some agencies collapsing.

DFID should position its research to support the kinds of research in developing countries that is specifically targeted to provide public goods, especially to the rural poor. This could involve working through intermediaries such as the CGIAR centres, local universities and NGOs.

Policy development is often hampered by inadequate evidence. Research support could be targeted at different levels, e.g.:

- priority setting
- policy formulation
- policy implementation
- policy evaluation

Using health as an example, some of the key issues include:

- thorough health systems assessments are usually unavailable
- there may be no supporting cost benefit/utilization/effectiveness analyses
- paucity of political feasibility analyses
- insufficient information on social and economic cost
- insufficient evidence of disparities e.g. in health status, access to health related goods and services

Some of the areas that need to be addressed in addition to the above are:

- emergencies and disasters preparedness
- capacity building of researchers to under the policy making process
- development of operational, experimental and quasi-experimental models to test policy

Healthcare and in particular infectious disease is clearly the biggest challenge for the future but has been an area of neglect by DFID in the past and should be remedied.

How far should DFID take a more regional approach to some research questions?

Given that DFID is already a major contributor to sustainable agriculture and has had a long history of helping poor farmers in south Asia; I would like to request DFID to continue to have small-scale farmers in south Asia as one of their continuing priority areas. This is fully justified in that a considerable majority of the world's poor remain in Asia and in rural S. Asia in particular. Though some developmental prosperity is now being seen in S. Asian countries, particularly in India, there remains a considerable majority of dryland farming communities who have not benefited from this development and are becoming increasingly disadvantaged irrespective of the stated desire of the Indian Government to help them.

ICRISAT (with excellent help from DFID) has shown in target communities in South Asia that good agricultural research can lead to the substantive improvement of the lives of dryland farming communities. Please do not abandon this priority research area as agriculture still can be an important route out of poverty for many small-holder farmers, particularly for women farmers and those people from scheduled castes and tribes.

Regional approaches are variable in their success, depending on the history of collaboration among the countries within the region. Central America, for example, is well accustomed to working on a regional basis, while Africa suffers more constraints in this regard. But the context of NEPAD may improve the situation in Africa.

The point is to identify specific opportunities within specific regions where research can be effectively coordinated at the regional level.

Perhaps DFID should initiate and lead efforts to develop the concept of Regional Public Goods! along the lines of the CGIAR led concept of Global Public Goods.

This could be looked at as research outputs that benefit a well defined minimum number of countries within a region because they address common and priority agriculture related problems in those countries.

The areas of research to pursue for this regionally oriented approach can not, and should not be suggested off hand, but only after a rigorous priority setting exercise would have been carried out on a regional basis. The choice would then perhaps be on the first 2-3 priority issues common to the defined minimum number of countries in the region.

The advantage of this regional approach to which DFID should devote some attention and resources is that it will on the one hand strengthen south-south collaboration and on the other hand, minimize repeated duplication of efforts on a country basis.

The regional networks help to define country's common problems but the problems can be rather different from a country to another. For instance, in the context of ASARECA, our national researchers have to deal with plant's diseases which are widespread in other African countries but not in our own country. I think DFID has to make case studies from one country to another and decides itself on the most relevant procedure.

The issue of regional cross-learning is very important. One mechanism which DFID used in the past and has stopped, which was very useful, was actually bringing government officials together cross-borders. It was funded by the Asia Poverty Reduction Fund. Officials were able to speak to each other in a very different way than the researchers could. They queried each other as to why they are doing such and such when the evidence presented is strongly opposed to it. And then they would get into a dialogue about what operational steps within the implementation programs they have tried in different areas, in different countries and what could be done here. That was far more effective than a researcher presenting his/her understanding of how, say, Tamil Nadu works to the Bangladesh government official. That fund no longer exists. So DFID is recommend to revive this kind of regional research where there can be this cross-border dialogue of officials.

There are a lot of people's initiative in Bangladesh that are organized by themselves. They are not taking any help from outside. They are even self-funded. Their resource is selfmanaged, sometimes they are using also their own indigenous knowledge. Research Initiative Bangladesh (RIB), have identified about two hundred such people's initiatives around the country. They are running well and DFID should learn how these people's initiatives are getting implemented, how they are solving their own problems without any outside help or support. So we should look into the matter these people's initiatives and identify the internal dynamics and the internal driving forces that are contributing to the success of these people's initiatives and replicate through other peoples, to other organizations.

Bangladesh is vulnerable to the political actions of other countries (China, India for example building dams) than to rising sea levels and salinity effecting agricultural land in Barishal. Bangladesh could be devastated if China and India implement those damming projects and agriculture here could be seriously effected. So there are so many aspects of this which are not just scientific and geological, or agricultural, so there are many issues in the future. DFID may highlight such issues that is beyond conventional research and are regional political crises to get it addressed by policymakers.

If you establish a solution to a global problem it would have a greater impact and reduce research costs if the solutions were generally applicable.

Region should be defined by the presence / absence of particular problems. However, local environments can change the application of solution principles.

Need to perhaps look at establishing an "index" for priorities in terms of which solutions will have the maximum impact on development.

How should DFID work with other research funders?

As indicated above, DFID can work with CGIAR, which involves multiple additional donors.

Capacity building and cross country knowledge sharing is important. If we talk about the governance issue, we need to think about the governance issue of development partners as well. How much they are investing in this country and how much cost are they incurring, and how much long-term investment which will generate employment and some other facilities long-term. For example, some infrastructure development or utility development.

One recent development is that the Care-Taker Government has taken strong measures against the corrupt. Questions are being raised about the usefulness of foreign aid. Some even claim that it's allowing opportunities for corruption. It is in the interest of all donors to find out how corruption can be prevented? Or even how it can be minimized? DFID can work with other donors to assess the situation and share long-term outcomes of each other's projects to get a better understanding of aid effectiveness and how to identify and deal with possibilities for corruption.

The multi-agency approach works if a single agency is leading on implementation i.e. funders are pooling their funds into an agreed management group, foundation or govt. department. It doesn't work when different agencies in the multi-agency funding arrangement have differing roles to play (which are supposedly complementary). Research will be best implemented by professional international research institutions that have a presence in target countries and regions, and have a long history of partnering with local institutions.

Makes sense not to duplicate administration, project topics and selection costs; also advantageous to encourage complementary research.

Should co-fund programmes/projects with the MRC, BBSRC and DTI/OST to fund vaccine R&D as infectious diseases are clearly the biggest healthcare issue for the future.
