

**DFID Research Strategy (2008 - 2013)
Consultation - Africa**

Country Report for Ethiopia

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List of Acronyms

ADLI	Agriculture Development-Led Industrialization
APAP	Action Professional Association for People
CSO	Civil Society organization
DFID	Department for International Development
EIAR	Ethiopian Institute of Agricultural Research
EPA	Environmental Protection Authority
GIS	Geographic Information System
ICT	Information Communication Technology
IFAD	International Fund for Agricultural Development
M & E	Monitoring and Evaluation
MDG	Millennium Development Goal
NGO	Non-governmental Organization
ODI	Oversea Development Institute
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PRSP	Poverty Reduction Strategy Paper
PDPRP	Sustainable Development and Poverty Reduction Programme
REAC	Research-Extension-Farmer Advisory Council
SG-2000	Sasakawa Global-2000
TB	Tuberculosis
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
UN	United Nations
WB	World Bank

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Executive Summary

This report presents the outcomes of the DFID research strategy (2008 - 2013) consultation in Ethiopia. The aim of the consultation was to seek views regarding what research DFID should support to make the biggest impact on poverty and on how research should be conducted for maximum relevance and uptake. Representative individuals across different key sectors (Agriculture, Health, Governance and Climate Change) including both researchers and research users were consulted. Key informant interviews, focus group discussions and multi-stakeholder workshop were used to gather views. In general, 100 stakeholders drawn from Addis Ababa, Oromia and Southern Nations and Nationalities Peoples regional states were involved in the consultation.

Key outcomes/findings

1) Drivers of Growth

- In view of the large population engaged in agriculture, the presence of huge potential and the low level of industrial development, stakeholders believed that agriculture is a key sector that can accelerate growth if proper investment is made. Stakeholders felt that the sector has never received adequate resource investment.
- All respondents stressed the need to transform the fragmented and subsistence-oriented agriculture to a high input-output, market-oriented, commercial and mechanized agriculture.

2) Research priorities for agriculture

Opportunities in the sector include: Presence of favorable natural environment, policies, market and improved technologies. **Major constraints include:** Lack of technical, infrastructural and institutional capacities; subsistence-oriented production and dependence on rainfall and traditional technologies; natural resource degradation; and weak linkage between relevant stakeholders.

Research priorities include: Livestock (breed, feed, health); high value cash crops, and crop diseases and pests; optimum crop-livestock integration; validation and integration of indigenous knowledge; post-harvest technologies; marketing research; biotechnology; irrigation, soil and water conservation; strengthening linkage between relevant actors, and communication of available research findings.

3) Research priorities for health sector

Opportunities include: Presence of favorable policy; expansion of public and private health services, and training institutions; presence of strong partnership and donor support. **Constraints include:** Infectious and communicable diseases; high maternal and child mortality; low health and related services coverage; poor quality health care; shortage of health professionals; poor linkage and communication among stakeholders.

Research priorities include: Association between climate change and trends/incidence of diseases; alternative health service delivery mechanisms and

factors hindering use of reproductive health services; malnutrition; traditional medicines and knowledge; multi-drug resistance (TB, and others), and communication and up-take of available findings.

4) Environment and Climate Change

Opportunities include: Acceptance and approval of international convention and protocols; presence of diverse ecosystem, biodiversity and valuable indigenous knowledge; and huge potential for environment friendly indigenous energy sources.

Constraints and challenges include: impact of investment on environment; degradation of natural resources and environmental pollution; lack of effective policy and strategy; coordination and communication problems among institutions; natural hazard, disease incidence, etc.

Research priorities include- Impacts of climate change and adaptation strategies; carbon marketing; impact assessment of investments and industries; waste management and use; impact of land policy and natural resource conservation; harvesting run-off water; alternative sources of energy; communication and utilization of existing information.

5) Research priorities in Governance

Opportunities include: Presence of supportive constitution, policies and some initiatives; establishment of Ethics and anti-corruption commission, Institute of Ombudsman, Human right's commission, ministry of women's affairs; better education opportunity and exposure to mass media. **Constraints include:** Widespread corruption; lack of accountability, transparency and efficiency in public institutions; lack of awareness and knowledge among the public; lack of capacity to implement policies and regulations; lack of coordination and integration among different initiatives; lack of competent, independent and impartial media.

Research priorities include: Improving the performance of civil service and impacts of the reform programmes; effectiveness and limitations of existing policies, laws and regulations; research into the judiciary system; improving coordination and collaboration among different institutions; institutionalizing M & E; role and contribution of civil society and mass media; and governance in relation to environmental protection.

6) Education

Research priorities include: Approaches to education expansion; improving quality of education including quality of teachers training and curricula; developing approaches for experiential learning; adaptation and adoption of proven methodologies used elsewhere.

7) Gender

Research priorities include: Technologies that can reduce women's workload; income generating technologies; roles and constraints of women in different sectors; harmful traditional practices; improving women's schooling and participation in social, economic and political processes.

8) Research implementation

8.1 Demand

Lack of mechanisms to elicit demand for research was clearly noticed. Research agenda setting in most cases was considered the exclusive domain of researchers with little or no active involvement of stakeholders. Although there are some cases where research has made a considerable contribution to policies and practices, stakeholders felt that some findings lack relevance. Lack of linkage, coordination and poor communication were mentioned as problems. There is also lack of capacity among users to influence research agenda or claim for research findings. There has been improvement in the agricultural research priority setting - through the Research-extension-farmer advisory council (REAC). Most of the research efforts in the other sectors are fragmented, lack coordination and synergy. Some also felt that some research are donor-driven and may not focus on national priorities. It was stressed that involvement of relevant actors in the whole research process would make it targeted and problem-oriented. The experience of REAC was recommended to elicit demand for research in the other sectors.

8.2 Communication

Stakeholders felt that most research findings remain on the shelf, mainly because of lack of proper communication mechanisms. Communication of the findings often is not considered as part of the research process. Research reports and scientific publications are often taken as ultimate targets. They are often prepared in English, too technical and sophisticated for most users to understand. In particular, communication channels used by researchers and others are often not suitable for women. The communication of agricultural research findings appeared to be relatively more effective.

Recommendations - Donors should commit a significant share of research fund to communication and implementation of the findings. The need to promote action research was also emphasized. Creation of such mechanism as REAC was believed to facilitate communication in the other sectors as well. Sensitizing researchers and developing accountability mechanisms for their findings were also stressed. Different motivation and rewarding mechanisms should be designed for researchers to encourage them communicate their findings. Moreover, media personnel need to be properly trained on the issues they address. Internet was preferred by researchers and other civil servants as an effective means of accessing information, while the use of language and culture sensitive simple materials and face-to-face interactions were suggested for the grass-root community. Organizing field days, visits and policy-briefs were also emphasized.

8.3 Partnerships

A number of local and international organizations established partnership with different institutions in Ethiopia. Their involvement is in the form of joint project initiation and implementation, funding and capacity building. But public-private partnership was said not to be strong enough. Stakeholders felt that though donors sometimes tend to impose their own agenda, in recent years, their influence in priority setting does not seem to be significant. It was suggested that donors should encourage locally or nationally-borne initiatives. They should support linkage and networking among relevant stakeholders, capacity building, research and communication of findings. Local partnership was also emphasized as a means to improve linkage, coordination and synergy. Partners with transparent and flexible procedures, and that follow participatory approaches in planning and decision-making were mentioned as preferred ones.

8.4 Capacity Building

Lack of capacity was a cross-cutting problem for all sectors. The need for capacity building at individual, organizational and systems levels in a systematic and strategic way was stressed. The need to focus on need-based continuous skill building short-term training and experience sharing visits was emphasized. Training on research methods and analytical techniques, participatory approaches and communication was suggested. Specialization and qualification up-grading on specific disciplines and support in terms of some critical facilities were also raised by some researchers. The need for raising awareness and competence of policy makers and concentrating training at lower levels such as extension workers and farmers was underscored. Creating linkage mechanisms, networking and interaction among relevant actors was also highlighted. Developing a central data system; strengthening women's information center; encouraging women researchers through training opportunities and research funding were also emphasized.

1. Country context

1.1. Socio-economic background

Ethiopia has diverse demographic, socio-cultural and natural features, with more than 70 ethnic groups, and over 70 million population. The country possesses enormous cultural and genetic diversity. Ethiopia's socio-economic feature is predominantly rural and agricultural. About 85% of the population is rural; agriculture employs 80% of the labour force and accounts for 90% of the exports. In 2003/04, agriculture, industry and service sectors contributed 42.10; 11.40 and 46.50%, respectively, to the GDP (Ethiopian Economic Association, 2005). The contribution of industry composed of manufacturing, construction, mining and electricity is generally very low. As compared to previous years, the share of the agricultural sector has declined while that of the service sector is on a rising trend. For instance, according to the UNDP report 1998, the contribution of agriculture, industry and service sectors were 51.5; 10.7 and 37.8%, respectively. Complex and widespread poverty, food insecurity, low productivity, famine, a rapidly increasing population, and degradation of natural resources are among the challenges facing Ethiopia. Widespread prevalence of malaria and HIV/AIDS, recurrent drought and floods have been worsening the situation. The Human Development Index (2003/04) for Ethiopia is 0.406, which gives the country the rank of 169th out of 177 countries.

1.2. Government and the Policy Environment

A new constitution that grants special rights to different ethnic groups in Ethiopia became effective in 1995. The constitution established Ethiopia as a federation and created nine regions based on the main ethnic groups, with a significant degree of autonomy. Since the early 1990s, the country has taken various reform measures and adopted a number of development policies and strategies. An economic reform programme that replaced the centrally-planned economy with market-oriented economy system was adopted. The Agricultural Development-Led Industrialization (ADLI) strategy is pursued as a major policy framework for economic development. It is a two-pronged strategy, incorporating on one side the external sector (export-led part) and on the other the internal sector which shows the forward and the backward-linkages between agriculture and industry. Agriculture has been considered the pillar of Ethiopia's economy. It will supply commodities for export, provides domestic food supply and industrial inputs, as well as expands markets for domestic manufactures. The fact that the country has emerged out of a communism system to a free market economy appeared to favor investment, economic progress, international relations and development supports. Many agree that there has been significant improvement in the policy environments though factors such as lack of technical and financial capacity, poor infrastructure and weak institutional capability have hindered effective implementation on the ground. In addition, the federalism system and decentralization somehow improved self-governance and community participation.

1.3. The Plan for Accelerated and Sustained Development to End Poverty

PASDEP is Ethiopia's guiding strategic framework for five year (2005-10). It represents the second phase of the PRSP process begun under the Sustainable Development and Poverty Reduction Programme (SDPRP), which covered the period 000/01-2003/04. Growth is the central element of PASDEP with particular emphasis to commercialization of agriculture and the private sector. It has been emphasized that accelerated growth is the only way to sustainably break out of poverty, as well as to finance the necessary social investments. With the current growth rates, however, there is little hope of significantly reducing human poverty in Ethiopia. Projections show that with a growth rate of 4% per annum there would be about 22 million absolute poor by 2015. A growth rate of about 8% per annum would have to be sustained to

reach the MDG of halving income poverty by 2015. But an average rate of only 5% over the 10 years (1993-2003) was attained. PASDEP consists of *eight pillars*: Building implementation capacity; a massive push to accelerate growth; addressing the population challenge; unleashing the potentials of women; strengthening the infrastructure; strengthening human resource development; managing risk and volatility; and creating employment opportunities.

Table 1. Budget allocated to key sectors 2001/02 - 2004/05 (% of total budget)

Sector	2001/02	2002/03	2003/04	2004/05
Education	14.20	16.10	20.40	19.70
Health	5.90	4.90	4.30	4.80
Agriculture and food security	9.20	8.10	13.40	16.30
Road	10.70	9.90	9.60	11.20
Water and sanitation	2.80	2.90	2.00	4.50

Source: PASDEP 2006.

1.4. Research policy environment and the research system

Research agenda setting and investment

Research agenda, research investment and direction are shaped by some of the major policies and strategies the country adopted. In this regard, the ADLI, Rural Development Policy and Strategy, PASDEP, and Science and Technology policy play an important role in influencing research directions. In addition to the country's policy directions, funding sources and flow also play a key role in determining research agendas and direction. Though the policies and strategies provide overall guidance, the processes followed in identifying research priorities and setting research agendas vary across institutions and sectors. In the early days, research priority used to be predominantly determined either by individual researchers or by funding agencies. This experience still prevails, especially, in higher learning institutions. But in recent years, there are some initiatives among different institutions to develop research strategies in order to enable them concentrate on critical priority areas. In this regard, the agricultural research appears to have clear directions.

Use of research findings in policy-making and practices

Some evidences (e.g. Demese, 2006) indicate that the current government tends to follow the principles of incrementalism in policy making, which is based on the paradigm that policy is built step by step, and wise decisions, as well as mistakes of the past are the foundations for current and future policies. The efforts made in recent years to conduct public consultation in the policy making process is an encouraging start. Especially, the government's effort to promote debate and discussion at different levels on the rural development policy and strategy is a step towards the right direction. The consultation process made during the course of Poverty Reduction Strategy Plan was also another notable attempt.

Despite the above improvements, stakeholders consulted believe that still several factors constrain evidence-based policy making process in Ethiopia. This include: First, lack of relevant research findings that can support or influence policy-making. Second, lack of awareness of policy-makers about the presence of research findings or poor culture of seeking such information. Third, lack of interest and willingness to use some findings, especially which are not in line with the ideology and strategy of the ruling party. There is a tendency to be selective in using information depending on who generated it. In all angles lack of communication plays a major role in hindering uptake and utilization of research findings in policy-making and practices.

Stakeholders felt that lack of awareness and adequate knowledge, suspicion, conservatism and risk avoidance or minimization strategy have been the main features of the rural community. These played significant role in impeding communication, uptake and utilization of research findings. In this regard, the legacy of the communism and military regime played its own part. It created suspicion and resistance among the community towards external initiatives, new information/technologies and joint-ventures.

State of research and tertiary institutes

A number of institutions are involved in research activities in Ethiopia. The Ethiopian Institute of Agricultural Research, Regional agricultural research institutes, the Ethiopian Health and Nutrition Research Institute, and higher learning institutions are the major actors in the national research system. Civil society organizations, private companies, international organizations and some sector public institutions are also engaged in research in various forms. In particular, the number of public and private universities has increased considerably in recent year. This has implications for the number of staff and students engaged in research. However, efforts of the various institutions, the quality and effectiveness of the research activities have been constrained by lack of financial, material and technical capacity, and poor infrastructure such as information communication technology and other facilities. In this regard, higher learning institutions seem to suffer most due to their rapid expansion. Lack of motivation and incentives for staff engaged in research also acts as major bottlenecks. There has been high turn-over of human power in the research and high learning institutions. In this regard, the measure recently taken by the government in raising the salaries of university lecturers, researchers and medical staff is a move towards the right direction to enhance the quality of education and research. It is a good mechanism to retain and motivate staff.

Agricultural and environmental research

Of the different sectors, the agricultural research system appears to be well organized and coordinated. The Ethiopian Institute of Agricultural Research is in charge of the overall coordination and execution of agricultural research activities in the country. The regional agricultural research institutes have the mandate to conduct and coordinate agricultural research in their respective regions. In addition, higher learning institutions, private companies and NGOs carry out some research activities. On the other hand, although some pieces of research are carried out by various institutions, there is no institution specifically dealing with research on environment or climate change. Most research activities tend to focus on natural resources, environmental pollution and other related issues. Research on various aspects of climate change is very scanty. Efforts and initiatives related to environment are handled by different institutions such as the Environmental Protection Authority, National Meteorological Service Agency, Institute of Biodiversity Conservation and Ministry of Agriculture and Rural Development. Stakeholders felt that this created coordination problems, duplication of efforts and some cracks. Communication problems were also noted between the regional and federal environmental offices.

Health Research

The Ethiopian Health and Nutrition Research Institute and the ministry of health conduct some research activities on certain health problems. Respondents believe that the findings of these institutions have been of significant importance in guiding policy. However, their efforts have been constrained by lack of capacity, such as qualified personnel, modern laboratory facilities and information communication technologies. Higher learning institutions (such as the Addis Ababa University, Jima University, Gonder University, Dilla University and others), are also major players in the health sector research. Moreover, some NGOs, private sector actors and international organizations carry out some research activities. Lack of communication,

coordination and synergy prevail in the health research as well. Strategy to identify and concentrate on priority areas and to coordinate the various efforts is lacking. Respondents felt that most efforts are based on individuals' perception of the problem/situation. Moreover, health research activities and directions tend to be influenced by funding sources.

Governance and social research

Research efforts related to governance and social science research in general are very much fragmented and lack coordination. Social research is mostly conducted by higher learning institutions, civil society organizations, and to some extent by research institutes, NGOs, donors/international agencies, and some public institutions. Although there are research findings that play important role in influencing or contributing to policy and practices, most social research findings remain on shelf due to lack of proper communication. Respondents felt that research conducted by public sector institutions and with the involvement of international agencies are more likely to be used by policy makers. Some believe that civil society actors also play remarkable role in this regard.

Investment in research capacity building

Lack of capacity among the institutions engaged in research was clearly noticed. In particular, there is scarcity of researchers in the social sciences. In terms of capacity building, the agricultural research seems to be favoured. Different funding and international agencies have targeted agricultural research capacity building. For instance, the recent support by IFAD and WB to build capacities of the agricultural research was of great benefit to the country, though some believe that the staff capacity building was not based on proper human resource development plan. Large number of staff were trained, research facilities were strengthened, new research centres were built; better linkage was established between research and relevant stakeholders.

1.5. Role and contribution of mass media and civil society in research and policy

In recent years, there has been some room for civil society actors to influence and contribute to policy in Ethiopia. They especially played an important role prior to the 2005 election. Above all, the Poverty Reduction Strategy process allowed civil society organisations to inform and guide the process. In addition, there have been some initiatives and efforts to ensure that the voice of local communities are heard and influence the policy process. They play a particularly important role in disseminating information and in creating awareness among the public. However, stakeholders believe that the situation after the 2005 election seems challenging to actively engage in advocacy. On the other hand, although the mass media is said to be free, it is still under a strong control of the government. Independence and impartiality of the mass media and the justice system were major concerns of the respondents. Moreover, lack of necessary knowledge and skill among media personnel is a major problem. For instance, they lack deeper knowledge of the area on which they prepare programmes. Information disseminated through mass media tends to be seen with suspicion among the public.

2. Methodology

The consultation exercise involved various methodologies and processes. Initially contact lists were obtained for relevant stakeholders to be considered for the different sectors. A four day planning workshop was held in Nairobi and all partners held detailed discussions, and agreed on the consultation methodology and processes. Semi-structured questionnaires were

developed and circulated among country partners and the country team adopted the checklist with minor modifications.

Key informant interviews and focus group discussions - Focus group discussions and key informant interviews were carried out with selected stakeholders in various sectors and designations. In addition to respondents from Addis, efforts were also made to obtain views of stakeholders in different regions, such as Arsi, Bale, East Shewa, West Shewa, Jima and Southern Regional State. Women respondents were specifically targeted to increase their representation and seek their views. In total, **74** stakeholders were consulted - 45 key informant interviews and 12 focus group discussions. The issue of key sector for investment and drivers of growth was raised to all respondents regardless of their sector.

Workshop - A two-day long in country workshop was held from 06 - 07 November, 2007 to deepen the information obtained through other techniques, as well as to generate additional information. In total, 29 stakeholders drawn from different sectors and actor groups attended the workshop. The workshop was held in a participatory and interactive way using various techniques. Details of the methodology are provided in annex-1.

3. Drivers of Growth

Agriculture as a key area for investment and driver of growth

The majority of the interviewed stakeholders, regardless of the sector and actor group they belong to, emphasized that agriculture continues to be the dominant sector and basis of all social and economic development in Ethiopia. In the short term investing in agriculture was considered the best and most viable option to stimulate and accelerate growth. Agriculture has direct impact on poverty as it provides employment, food and income for the bulk of the population and foreign exchange for the nation. The fact that over 85% of the population is rural and about 80% is employed in the sector necessitates investment in agriculture. It was felt that Ethiopia does not have other competitive sectors at the moment; the industrial sector is yet to be developed to absorb the vast labour force. There is also enormous under-utilized potential in terms of natural and human resources which if used effectively would bring remarkable development. For example, there are suitable land and different agro-ecological ranges that allow growing different crops for different markets. There is huge water resource for irrigation development. Moreover, unlike industry, agriculture does not require huge capital investment. So, resource-poor people can afford to be engaged in and earn livelihood from it. We need to generate capital from agriculture, and gradually move to industry. Moreover, given the country's current level of development, some respondents felt that it would not be easy to meet the quality requirements of international market for industrial products. Some expressed that it will not be easy to attract investors to industry and other sectors as desired; it needs long term and huge capital investment.

The need to transform subsistence-oriented agricultural production

Almost all respondents shared similar views with regard to the need to transform the agricultural sector; if it is to accelerate growth and support other sectors. "We have been heavily relying on rain-fed agriculture, low input traditional farming practices that we inherited from our forefathers" commented one participant. The highly fragmented and subsistence-oriented farming needs to be changed into a high input-output, market-oriented, commercial, and mechanized agriculture. The need to use improved technologies, investing on irrigation, and proper use and integration of natural resource conservation and environmental protection was emphasized. Many felt that currently investment in agricultural development and industries take place at the expense of

natural resources. But one respondent (from the climate change sector) felt that emphasis should not be placed on high external inputs in view of their consequences for the environment and the low purchasing power of the rural poor. One researcher also indicated that livestock production will contribute to the degradation of ozone layer through the emission of methane from their dung.

Inadequate investment in the agricultural sector

The majority of the respondents believed that the agricultural sector has never been given adequate resource investment and support, though it has been indicated as a leading sector in the country's development policy. On the other hand, the need to allow farmers to rent out their land; to closely and mutually collaborate with private investors was highlighted by some respondents. This is believed to promote mechanization and commercialization. Moreover, some felt that smallholders have to be able to use their land as collateral to obtain credit or farm inputs. The need for subsidies was also emphasized, especially by researchers.

The need to shift to high-value commercial crops and agro-processing industry

Almost all respondents indicated that, in the long run, we need to reduce dependence on agriculture that heavily relies on natural resources. The sector should be transformed and pave the way for the development of agro-processing and other industries. Investment in agro-industries would accelerate economic growth since it has a backward linkage to agriculture. It also needs to shift from merely producing food crops to high value market-oriented commercial crops such as spices, oil seeds, coffee, tea, bio-fuel plants, etc. It was also indicated that a socio-economic transformation process should entail a progressive decline of the proportion of people working in and living directly on agriculture.

The need for a balanced attention to the different sectors

A large number of respondents indicated that other sectors such as small scale industries and services deserve due attention; emphasizing that all sectors complement and support one another. Most of the female respondents particularly emphasized that balanced attention and support needs to be given to all sectors as women are involved and survive in different sectors. Women hugely participate in informal sector such as small scale business and agricultural activities and these need to be supported and encouraged.

The need to give better attention to the industrial, service and education sectors

A few respondents (especially, those in the service sector) pointed out that if other sectors such as energy and tourism are given the kind of support rendered to agriculture, there could be a better return and contribution. They felt that there has been huge investment in agriculture, without significant output and return from this sector. Moreover, views varied based on region. Researchers from the Southern Ethiopia Regional State felt the need to focus on industries. They believe that their land does not have the capacity to carry the rapidly increasing population in the region and that industry needs to be promoted to absorb the workforce. Human development (knowledge and skills), infrastructure and social services, and marketing system also deserve attention. Some indicated that sectors like education can accelerate economic growth through the supply of a qualified labor force; the trained human resource can also be sent abroad and generate income in the form of remittances. The need for aggressive and effective family planning and population control, and attention to urban development were also stressed.

4. Research Priorities

4.1 Agriculture

Agriculture plays a decisive role in the social and economic development of the country. However, the full potential of agricultural growth has not yet been realized. The major areas of focus during the PASDEP period to secure sustained development in agriculture include: adequate capacity building through different training programmes; introduction of improved technologies; increasing the quantity and quality of marketable agricultural products for domestic and international markets as well as supporting the establishment of appropriate marketing systems; expansion of small and medium scale irrigation and water conservation schemes; and ensuring prudent utilization of natural resources.

4.1.1. Opportunities in the agricultural sector

Almost all respondents outlined the presence of a number of opportunities to harness the potential and promote the development of the agricultural sector. These include:

Presence of favorable natural environment, policies and government commitment

Presence of diverse and suitable agro-ecologies and abundant natural resources; favourable and supportive policies and government's commitment to improve the sector; vast livestock population and; presence of huge irrigation potential were identified as the major opportunities to improve the sector. Availability of raw materials or by-products to produce agricultural inputs such as fertilizer using sugar factories by-products was also mentioned as a having promising potential.

Presence of trained man power, favorable market and improved technologies

Encouraging market prices for agricultural products and access to international markets; young generation with relatively better training and knowledge; availability of improved technologies; increasing need and interest among farmers to use new technologies were also considered as fertile ground for developing the sector.

4.1.2. Constraints in the agricultural sector

Lack of technical and institutional capacities, necessary infrastructure and facilities

Almost all respondents stressed that effective implementation of the policies and strategies at the grass-roots level has been hampered by several factors. These include: shortage of trained, efficient and competent manpower; lack of necessary infrastructure, facilities and finance, and problems related to institutions. Though the government has made efforts to deploy three extension agents at *kebele*¹ level (for crop, livestock, and natural resource), there is widespread concern regarding their commitment, efficiency and competence. They often focus on non-education activities (such as political activity).

Dependence on rainfall, traditional technologies and subsistence production system

The highly fragmented and subsistence-oriented production/farming, dependence on the highly erratic rainfall and traditional technologies were mentioned as major bottlenecks to the progress of the sector. In recent years, some attempts have been made to mobilize farmers in water harvesting activities and to use small scale irrigation schemes in some areas. The problem of low productivity was further exacerbated by increasing population pressure on land, severe natural resource degradation and soil erosion.

¹ *Kebele is the lowest administrative unit.*

Lack of appropriate technologies, knowledge, capital and weak linkages

Respondents attributed the low level of improved technology use to factors related to technologies, farmers and the weak linkage between research, extension, farmer and other stakeholders. Stakeholders indicated that technologies have been generated with little or no involvement of users and thus often fail to properly address their priority problems. Absence of appropriate and problem solving research outputs for different agro-ecologies and socio-economic groups was repeatedly mentioned. Lack of capital, lack of education, suspicion and the risk-averse nature of Ethiopian farmers were believed to contribute to poor adoption of new technologies. Lack of availability of improved technologies (such as inputs) in adequate amounts and the right time, at affordable prices, poor infrastructure, lack of access to attractive output markets, and lack of institutional support also acted as major constraints. Moreover, the poor linkage between relevant actors jeopardized proper communication of improved technologies and feedback.

Lack of adequate investment in the agricultural sector

Almost all respondents (but particularly researchers) emphasized that adequate resources have never been deployed to the agricultural sector though it has been indicated as a priority sector on paper. Lack of subsidy for agricultural inputs and the current land policy were also raised by some respondents as constraining factors.

4.1.3. Research priorities

A wide range of issues were identified by stakeholders as priority areas for research.

Livestock breeding, feed improvement and health

- Livestock feed; breed improvement; livestock health (epidemiology, strategic vaccination); animal genetic resource characterization, inventory and conservation were identified as priority areas by researchers. It was indicated that our livestock are suffering from a "hunger for which no one has asked feed aid". Thus assessing the available feed resources and designing strategies and improving them deserve attention. Moreover, although Ethiopia possesses the largest livestock population in Africa, their potential has not been harnessed because they have poor productivity, because of their genetic make up. Thus breed improvement was identified as one of the top priority areas. Moreover, we do not have gene bank and conservation mechanism and policies for our animal resources. One researcher indicated that a cattle breed known as "Sheko" is found to be tsetse tolerant. But this breed is going to be extinct if some sort of conservation mechanism is not designed to rescue them.

Crop production and management

- Developing technologies for cash crops and/or industrial high value crops was identified as by researchers as a priority area. The government is promoting a specialization and diversification approach to make use of the comparative advantages of particular areas that will then be used as growth corridors. This approach focuses on production of high value crops such as oil seeds, coffee, apple, flowers, bio-fuel plants etc. Thus there is a need to focus on generating technologies that will provide producers with a basket of options to make them competitive in the world market. Development of market-oriented varieties and broadening varietal options were also raised by some respondents.

- Identification of crops that farmers should focus on to earn higher income and maximize the benefit for the nation. For instance, *Teff* is a cereal crop free of gluten and Ethiopia is the origin of the crop and has a patent for it. The concern of researchers is how to produce *teff* as a cash crop for foreign markets and proposed some policy and sociological research on the feeding habit of people and design mechanisms to discourage consumption of *teff* and promote a shift to other crops.
- Research on crop diseases and pests - Specific crop diseases like wheat stem rust, coffee wilt, apple and *enset* disease were indicated as priority research areas.
- Characterization of farming systems to identify the opportunities and priority problems/constraints of farmers in different agro-ecological zones was raised by researchers. There are areas which have not been properly addressed yet. Even previously studied areas need reconsideration and characterization since there is dynamism over time, especially related to climate change.
- Fertilizer recommendation for different agro-ecologies and specific areas was also mentioned by few respondents.

Indigenous Knowledge System

- Most respondents mentioned the need for identifying, testing, validating and promoting indigenous knowledge/technologies, and integrating them with modern methods and knowledge. Since Ethiopia is a country composed of multi-ethnic groups with various cultures, beliefs, and knowledge, there are several useful traditional knowledge and practices that have never been properly studied.
- Crop livestock integration, especially optimum combination of crop and livestock enterprises mixes that smallholders with limited land, labor and capital can accommodate to obtain maximum benefit from both needs to be studied.

Market linkages and marketing system

- Research into marketing research such as marketing system and value chain analysis was stressed by some researchers. Because of the dynamic nature of markets there is a need for continuous value chain analysis in order to identify possible opportunities and constraints that may arise and take appropriate actions accordingly.
- Research on quality of agricultural commodities to enhance their marketability and competitiveness in the world market was emphasized by respondents.
- Credit and saving was also cited as priority area.

Biotechnology

- Biotechnology is a new area of research in Ethiopia. The Ethiopian Institute of Agricultural Research is establishing some facilities like biotechnology laboratories. Researchers indicated the need to properly identify where and how to use this technology in a way that will not compromise our biodiversity.

Irrigation, efficient water utilization and post harvest technologies

- Virtually, all respondents emphasized the need for irrigation development and studying efficient and effective utilization of water. Issues related to soil and water conservation also deserve due attention.
- The need for post harvest technologies and agro-processing was also stressed.

Uptake and utilization of research outputs

- Information technology and communication of available research findings and promoting their wider use was identified as priority area. Related to this, the need to investigate

ways of developing or strengthening linkages between farmer, extension, research, market and other actors was repeatedly mentioned.

- Developing strong monitoring and evaluation and accountability mechanisms in the research system was also emphasized.

4.1.4. Effects of regional and global trends

Respondents indicated that both regional and global trends have a significant impact on national research priorities. They are linked with regional and global markets which dictate the type of commodities to focus on and the flow of funds/assistance. For instance, in the past few years there was a shift in focus from sole food crops to food crops and high value export crops; export type livestock and meat, and introduction of new crops/commodities to new areas.

4.2 Health

The Government health policy focuses on poverty-related health issues – communicable diseases such as HIV/AIDS, Tuberculosis, malaria and diarrhea, health problems that affect mothers and children. More focus will be put on primary health care and preventative services. Various programmes have been designed, including: The health service extension programme; the accelerated expansion of primary health care coverage; nutrition (improving the nutritional status of under-5 children); the national child survival strategy; and others. The inter-sectoral collaboration in crosscutting areas such as water supply, sanitation, education, gender, population and food supply are also given attention.

4.2.1. Opportunities in the health sector

Respondents described a number of opportunities to improve the health sector that would have direct impact on the livelihoods of people and the growth of the nation.

Presence of favorable policy and government commitment

Issues most frequently mentioned as opportunities include: Presence of enabling policy environment; governments' commitment to improve the health sector; and the launching of health extension programme. Many felt that the government health policy is supportive and has been allocated huge resources for its implementation. The government has been making attempts to deploy 2 extension workers per *kebele*. So far 15,000 extension workers were already assigned. Training of health officers has also been accorded due attention and there is a plan to have one health post per *kebele* and one health center for five health posts. The target is to fully attain these figures in 2009. Since the health extension workers are based in the community there will be more opportunity to take timely and appropriate preventive actions against most of the health problems.

The flourishing private health service and training institutions

Current government policy has enabled the private sector to invest in health services. The number of private medical centers and training institutions has been rapidly rising. But the quality of private training institutions has become a major concern and needs reconsideration by the regulatory bodies. The need to develop better monitoring mechanism to maintain the quality of training was also suggested.

Presence of strong partnership and well coordinated donor support

Emergence of strong local partnership; international links and support from diverse partners, especially for HIV/AIDS were highlighted as opportunities. Harmonization programmes allowed

different donors to pool their funds and direct their assistance to the country's priority areas, which have been outlined in PASDEP. Presence of many volunteers in the health sector, for instance members of Red-cross society was also mentioned.

4.2.2. Constraints in the health sector

A number of constraints and problems that constrain the health service and the livelihood of the society were also outlined by respondents.

Infectious and communicable diseases and high maternal and child mortality

Infectious and communicable diseases, especially, the three major killer diseases (HIV/AIDS, TB and malaria) cause high morbidity and mortality and significantly affect productivity, livelihoods and economic growth. For instance, malaria is active during farming seasons of intense activity such as harvesting and this has serious consequences for productivity and livelihoods. About 64% of the Ethiopian population is at risk of malaria, while 72% of the land is prone to it. HIV/AIDS and TB also have similar effect on the livelihood and the economy. They also incur treatment and funeral expenses. High maternal and child mortality rate problems were also frequently mentioned by respondents. Maternal mortality is mainly related to birth; while child mortality is caused by communicable diseases, malaria, pneumonia, problems associated with birth, and malnutrition (which was mentioned as major problem). Malnutrition retards human growth and development and productivity. About 51% of the Ethiopian children are said to be stunted as a result of malnutrition.

Poor access to safe water, sanitation and other health services

Poor access to sustainable safe water and sanitation, as well as low health service coverage, lack of well qualified health professionals, and poor quality health care especially in public health institutions were frequently mentioned as major problems. The health centers are inaccessible to most remote areas. Low level and coverage of reproductive health services was also related to population growth. The available health institutions in most cases do not have sufficient equipment and facilities. Some respondents also mentioned low level of awareness on vaccine use among the rural community. Change in disease trends, as a result of climate change; and emerging diseases like Avian Flu were also mentioned as potential threats endangering the livelihood of the poor and the economy.

Lack of awareness and poor linkage and communication

Lack of knowledge among policy-makers and managers, and lack of linkage among relevant institutions were cited as constraints. Respondents felt that most of the findings have not been communicated to users. The design of research activities did not consider the delivery mechanism.

Lack of demand-driven and relevant research

Lack of demand-driven and problem-oriented research was also considered a major problem. In most cases research is designed and executed based on researcher's interest without the involvement of users in problem identification and subsequent processes. It was also pointed out that most health research tend to be donor driven. Some respondents indicated that most of the health research carried out so far had methodological problems, such as lack of representativeness. Most of the research results (usually small pieces carried out by graduate students) were not published and publicized and remain on shelf. One researcher indicated that most researches tend to focus on verifying findings obtained elsewhere. He felt that we need to conduct some basic research to understand different issues/facts in the local context.

4.2.3. Research Priorities

The following areas were frequently mentioned as priority research areas by different respondents.

Association between climate change and trends/incidence of diseases

Impacts of climate change and other environmental factors on trends and cycles of different diseases such as malaria, respiratory diseases, diarrhea, etc was identified as priority area. For example, malaria used to be a problem on low land areas. Recently, it has become the problem on the mid altitude areas. There is a need to investigate its relation with climate change and other aspects.

Research into alternative health service delivery mechanisms

- Assessment and evaluation of effectiveness of the current health intervention services such as malaria bed-net and drug, and other health extension services was identified as priority research area by many respondents. Study on how to prevent malaria in an environment friendly manner was also mentioned as priority area.
- Studies to understand why people are not using the reproductive health services (which are in most cases subsidized or provided for free) was suggested by some respondents. Factors influencing attitude of people towards reproductive health services. Studying effective ways of reproductive health education and identification of factors hindering their use need attention.
- Two respondents mentioned the need for a study on sustainable provision of community development activities like safe water, sanitation, etc.

Research on medicinal plants and indigenous knowledge

- Research on medicinal plants was identified as a key area by most respondents. Ethiopia is endowed with different medicinal plant species, and 85% of the population use traditional medicines. But the potential has not been fully exploited. Therefore, it is important to evaluate and validate the effectiveness, and capture indigenous knowledge related to them. Especially, effort is needed to link producers, traditional healers, researchers and industries.

Communication and up-take of available information

- Developing mechanisms and promoting communication/dissemination of available research findings/information was highlighted by most respondents.
- Telemedicine has been piloted at some places; the need to assess its effectiveness, limitations and constraints and up-scaling was mentioned by two respondents. But this was considered low priority area during the workshop.

Other emerging health issues

- The need for different vaccine trials in our specific context was emphasized by some health researchers.
- Research on different aspects of malnutrition (causes, impacts, solutions, etc) was also suggested by some researchers, stating that malnutrition is a serious child health problem in Ethiopia.
- The need for continuous Avian flu surveillance was also mentioned by some respondents; but was considered as low priority area by workshop participants.

- Multi-drug resistance (TB, and others) was mentioned by many respondents, though it was considered low priority research area during the workshop.
- Study on newly emerging diseases due to epidemiological transition (DM, Ca, Micronutrients) was also raised.

4.2.4. Influence of global trend on health

Respondents indicated some of the influences of global trends on the health sector. Avian influenza has drawn attention and surveillance of the disease has become a priority area. New areas at high altitude have been affected by malaria as a result of climate change in recent years. Occurrence of floods/natural disasters has resulted in outbreaks of malaria and other water-borne diseases. Drug production by India, China and other countries has provided alternatives to acquire affordable and new drugs, sometimes with better efficacy. The country has also started inviting investors in the health sector.

4.3. Environment and Climate Change

Different people were found to have different views about environment and climate change. Some perceived climate change as an opportunity while others considered it a big threat. Climate change is an opportunity in cases when areas that were not suitable for agricultural production become conducive for certain types of crop or livestock production. For instance, in some parts of the Ethiopian highlands where it was hard to grow maize some two or three decades ago are currently becoming high producers of maize and other cereals. Some areas that were very harsh for human settlement are becoming ideal residential areas. However, many felt that climate change is overall a threat for us. It causes too much rainfall and flooding, drought, very high and low temperature, affects the growing period, too much evapotranspiration and decrease in ground water resources. Climate change also affects the pattern of pathogens and spread of diseases. According to the respondents, in view of our capacity to cope and adapt to changes, coupled with our natural resource-dependent economy and rain-fed agriculture. Thus most of the respondents were more concerned about the negative impacts of climate change as opposed to the opportunities it presents. They indicated that it is one of the greatest environmental, social and economic threats facing the planet.

4.3.1. Opportunities related to the environment and climate change

Respondents described a number of opportunities that would help to mitigate against or adapt to the effects of climate change, or benefit from the change.

Acceptance and approval of international convention and protocols

The fact that "Ecosystem Based Conservation" was introduced to Ethiopia was considered as a great opportunity towards better conservation efforts. This involves diverse, multi-sectoral stakeholders. The acceptance of some protocols and conventions such as the Kyoto protocol, and presence of environmental protection policy and proclamations (though problem of reinforcement was mentioned) were also mentioned as opportunities. The fact that environmental problem and climate change are a global concern and shared problem among all nations can also be an aspect that support efforts and initiatives.

Improved attention by the government

The better attention given to natural resource, environment and climate change in recent years was also cited as an encouraging move. For instance, there are standing committees in the parliament such as natural resource protection standing committee, pastoralists standing committee and agriculture and rural land standing committee. Moreover, environmental issues have been accorded serious attention during the Millennium celebration ceremony. An initiative of two trees at the millennium has created special moment in which the nation focuses on natural resource conservation.

Presence of diverse ecosystem, biodiversity and valuable indigenous knowledge

The presence of diverse ecosystem, topography and climate and the resultant huge biodiversity (Ethiopia is one of the 12 countries known as center of diversity); presence of diverse ethnic groups, culture, indigenous knowledge and conservation practices; and prevalence of organic products produced with little or no external inputs (that can fetch better premium) were considered as additional fertile grounds. The potential for indigenous energy sources such as bio-fuel and bio-diesel which are environment friendly was also considered as huge opportunity that needs to be harnessed.

4.3.2 Constraints and challenges related to the environment and climate change

Investment negatively impacting on natural resources and environment

Human actions are believed to cause most of the climate changes. Investment has been damaging the natural resource and environment in general; it has caused destruction of forests, drying up of springs, water pollution, and threatened livelihood of the local community. Respondents emphasized that investors in the agricultural sector are operating in a devastating manner, earning money at the expense of the environment. Development and expansion of the energy sector has negative impact on natural resource and environment.

Increasing population pressure and degradation of natural resources

The ever increasing population pressure is exacerbating the problem. It puts more pressure on natural resource: causes more demand for fuel wood and farm lands, cultivation of hilly areas and accelerating soil erosion. Most of the stakeholders in this sector pointed out that lack of alternative energy sources such as biogas resulted in dependence on and destruction of natural resources. High livestock population was also mentioned as one of the causes of environmental degradation and climate change. They contribute to environmental change/degradation through emission of methane (CH₄) from their dung (which has negative action on ozone layer); through overgrazing, eradication of soil cover and trekking leading to soil erosion.

Lack of attention towards biodiversity conservation and institutional problems

Respondents felt that biodiversity conservation has been denied adequate attention. Feeding population has been given priority at the expense of natural resources. There are mandate conflicts amongst institutions dealing with issues related to climate change or environment at large. They also expressed that international conventions in the Ethiopian context are not unified. For instance, the UN convention on climate change, the UN convention on combating desertification, and the UN convention on biodiversity are dealt with by different institutions in Ethiopia. Besides, instability in the organizational structure of institutions dealing with Natural Resource and Environmental Protection was also mentioned as a major constraint.

Lack of effective policy/strategy and negative impacts of climate change

Most respondents felt that effective policy and adaptation strategies on climate change are lacking. Existing efforts and initiatives are rudimentary and fragmented. Frequently occurring drought and desertification, and vulnerability to flood and other hazards were also cited as the major challenges that have been facing Ethiopia. Respondents indicated that some plants and animals have migrated from their original habitats to new areas as a result of climate (environmental) change. Reduction in crop yield, drying up of wetlands, springs and lakes are among the effects of climate change noticed in Ethiopia.

Environmental pollution as a result of human activities

Most respondents (especially, civil servants) indicated that pollution of water and the environment as a result of human activities; such as wastes of industries, city dwellers, etc, have immediate noticeable effect on the livelihood of the community. For instance, farmers in the vicinity of polluted areas/rivers (such as Akaki, Lafto, Sebeta, Modjo) are suffering from water pollution. Residents of these areas use polluted water for their livestock and to grow vegetables. Having known this fact, the market is discriminating livestock and vegetables produced in these areas. Consumers can easily trace sheep from Sebeta, vegetables from Lafto, Akaki and down streams of Modjo. This seriously affected the livelihood of several households.

4.3.3. Research priorities in environment/climate change

Respondents felt that the issue of climate change is more or less a recent phenomenon and has not been addressed by research or other interventions. Research and available information on environment is fragmented and not well coordinated. With regard to identification of research priority areas, most respondents share similar views regardless of their actor groups. Some of the research areas were mentioned by many respondents, while others were raised by a few respondents. Priority areas include:

Impact of climate change and adaptation strategies

- Impact of climate change (and its extent) on different areas such as agriculture (crop production patterns, change in productivity, etc), water resources, human health, natural ecosystems and biodiversity, rainfall (intensity and distribution) and others was emphasized by many respondents as a key area.
- Modeling the interaction between crop diseases and pests and climate change was also mentioned by some respondents.
- Impact of climate change on infrastructure planning, design standards, design methodologies, maintenance and costs, e.g. roads, bridges, power networks, drainage, water supply;
- Seasonal climate prediction was also mentioned by workshop participants.
- The need for identifying and developing adaptation strategies and coping mechanisms were identified.
- Introduction of new crops/technologies to new areas as a coping strategy was also mentioned by some respondents as a priority area.
- Research on carbon marketing was also suggested by some respondents. Carbon marketing needs to be promoted among farmers/investors to reverse deforestation. What sort of plants can be effective in carbon marketing; what management practices are needed for these trees; how can we make the carbon marketing more effective; how

can we maximize our economic benefits from carbon trading; what can we get out of it; and what costs and benefits are associated with it?

Impact assessment of investment/industrial activities

- Floriculture industry is flourishing in Ethiopia. Investigating consequences of the sector on the environment, water bodies, human health, livelihood and poverty was frequently mentioned as priority issue.
- Assessment of different factories effluents such as tannery chemicals on environment; and waste recycling and making use of by-products and their management was also identified by many respondents.
- Generating relevant information and influencing policies especially in relation to investment that negatively affect the environment was raised by many respondents.

Natural Resource conservation and management

- Research on effective and alternative ways of natural resource conservation and rehabilitation of degraded areas was identified by most respondents.
- Another important area identified by respondents was investigating the impact of land policy on natural resource management and conservation; as well as research on proper land use planning and management.
- Inventory and valuation of natural resources, identifying and characterizing our natural resources was mentioned by few respondents. They indicated that Ethiopia lacks concrete knowledge/information on its natural resources such as forest; amount of soil being lost as a result of erosion.
- A few respondents raised the need for devising mechanisms to harvest run-off water for useful purposes, and identifying and assessing risk (flood) prone areas.

Indigenous Knowledge System

- Validating and developing indigenous knowledge and practices related to natural resource conservation, and alternative indigenous sources of energy such as bio-fuel was also mentioned by some respondents.

Communication of available information/knowledge

- Looking into effective ways of making use of existing knowledge/information; and communication/dissemination of existing knowledge and information and advocacy works were highlighted by many respondents.

4.4. Governance

The government of Ethiopia has been making efforts to ensure transparent and democratic governance. In particular, some measures have been taken to improve accountability, transparency and efficiency of the public service delivery. Virtually, all respondents underscored that good governance is a key to every socio-economic development. They indicated that lack of good governance is the root cause for most of the problems in developing countries like Ethiopia. All sectors of the society would benefit from research related to good governance. Because good governance affects every citizen and it influences the functioning of all sectors of the economy. Good governance has 8 major characteristics. It is participatory, consensus-oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive,

and follows the rule of law. It assures that corruption is minimized, the views of minorities are considered and that the voices of the most vulnerable in the society are heard in decision-making.

4.4.1. Opportunities in ensuring good governance

A number of opportunities that would help to ensure good governance were identified.

Presence of good constitution, conducive policies and some initiative by government

Almost all respondents mentioned the presence of good constitution and some conducive policy environments. Some of the efforts being made by the government such as the ongoing civil service and justice system reforms; awareness raising and trainings on proclamations, regulations and legislation to raise awareness of the community were commended by respondents as encouraging start. Establishment of Ethics and anti-corruption commission, Ombudsman, Human Right's Commission, Ministry of Women's Affairs, creation of some organs in the parliament to control government bodies were also part of the government's effort in this regard. Effort to ensure decentralization and self-governance through regional states were also mentioned by some respondents as an encouraging initiative though some had reservation regarding its effectiveness.

Initiatives of civil societies, and presence of favourable condition to get organized

Encouraging initiatives have been underway by civic societies to enhance awareness, provide legal aid and other support. For instance, Action Professional Association for People (APAP), Women Lawyers' Associations and other NGOs have been trying to organize the weaker section of the society, offer legal aid, etc. The government also somehow encourages organization of different sections of the society such as youth, and women. This would help them to be empowered, develop negotiating power and defend their rights and interests.

Better education opportunities and exposure to mass media

Better education opportunities, especially promotion of civic education, and access to the media were believed to enhance awareness and knowledge among the public. Adoption of different international conventions is also one of the opportunities in this regard

4.4.2. Constraints to ensuring good governance

There are a number of limiting factors hampering the efforts made towards good governance or which are emanating from lack of good governance.

Corruption, lack of awareness/knowledge and accountability

Prevalence of widespread corruption at different levels in the civil service system was mentioned by respondents as the major problem in Ethiopia. They indicated that ordinary citizens are also contributing to corruption in one way or another. Lack of awareness among the people (especially, the rural community) about existing policies, laws, regulations, their right and obligations is also frequently mentioned. Respondents pointed out that people working in the judiciary system and police can play important role in ensuring good governance. But they often appear to ignore the fact that they are part of the government system and their role as public servants. They also lack the required level of knowledge to effectively and efficiently undertake their assignments. Generally, respondents stressed that there is lack of accountability, transparency and efficiency in most public institutions.

Lack of competence and capacity to properly implement policies and regulations

Lack of proper implementation of existing policies, proclamations, regulations, legislation, etc was also frequently mentioned. This was mainly attributed to lack of competence and capacity though some also cited lack of good will and commitment from political leaders. This, coupled with frequent change of officials, particularly jeopardized the effectiveness of the decentralization process and efforts.

Lack of tracking system, coordination and collaboration

Lack of tracking system (monitoring mechanism) in different public systems and sectors was also mentioned as a major problem. On the other hand, lack of collaboration, coordination and integration among different initiatives and efforts contributing to good governance was another problem. Efforts were very much fragmented and uncoordinated. Lack of genuine commitment, tolerance and common interest among the political parties was also raised as a bottleneck. Respondents felt that different political parties need to have some common ground when it comes to the interest of the country.

Lack of independent and impartial media

Lack of free, impartial/unbiased mass media staffed with qualified personnel with strong professional ethics was also mentioned as the major problem. The civil society citizens could not get adequate and unbiased information from the media. They stressed that mass media needs to be out of the government control; it should be privatized in a genuine way if good governance is to be realized.

Traditional culture and attitude of the community

In addition, respondents highlighted problems associated with culture and mind-set of the community. They felt that Ethiopian society is conservative with a traditional culture that can be resistant to change, new technologies and procedures. This acts as an obstacle to changes and progress towards developments and to create a democratic society. Moreover, the need to continuously create awareness and empower the civil society and citizens to enable them demand their rights and privilege was also underscored.

4.4.3. Research priorities

Ways to improve the performance of the civil service and assessing the effectiveness and limitations of existing policies, proclamations and regulations

- Impact assessment of the reforms being undertaken in the country was identified as priority area.
- Respondents stressed the need for looking into existing policies, proclamations and regulations, and identifying gaps/limitations and proposing amendments.
- The need for research into how to create a check and balance system among the different government bodies (judiciary, executive and legislative); including how to avoid interference of one into the others affairs was suggested.
- Study to assess the effectiveness and constraints of anti-corruption watch dogs was also underlined.

Judiciary system

- Most respondents emphasized the need for research in relation to the judiciary system. Looking into mechanisms that would help to make speedy trials was raised as top

priority researchable issue. The need to assess the effectiveness and impact of the justice system was also suggested by some respondents.

Intra- and inter-sectoral coordination/joined up government

- Seeking ways of improving coordination and collaboration among different institutions dealing with related issues was suggested.
- Institutionalizing monitoring and evaluation by civil service organizations was emphasized. At present M&E of governance process did not allow participation of CSOs and mechanisms are required that would allow them to do so.
- The need to assess factors affecting participation and contribution of the civil society towards ensuring good governance was also highlighted.

Mass media

- The role of mass media and communication in ensuring governance was also emphasized as key areas.

Education quality

- Most of the respondents expressed their concern about the quality of education and emphasized the need for research on how to improve quality of education and providing evidences that can convince policy makers.

Indigenous knowledge systems

- Research that encourages the indigenous knowledge system and local capacities was also mentioned by respondents.

Governance in relation to environmental protection

- Government commitment and will to allow environmental protection was identified as priority area. A study to produce evidence to allow the government to assess the trade offs between short term policies aimed at feeding people which could have negative environmental effects was also raised.

4.5. Cross-cutting issues - Population, gender and education

4.5.1. Population

Rapid population growth remains a major barrier to poverty reduction in Ethiopia. Thus addressing the population challenge is at the center of PASDEP. The National Population Policy aims at matching the country's natural resource with the population growth rate. The policy focuses on reducing total fertility rate; increasing the contraceptive prevalence rate; and reducing maternal, infant and child mortality and morbidity rates. It emphasizes improvement in the quality and scope of reproductive health service delivery; population research and information dissemination; expansion and strengthening of domestic capacity for training in population; and social mobilization. Respondents also emphasized the need for effective family planning and population control interventions.

4.5.2. Gender

Problems and constraints facing women were said to be many and multi-faceted. They have direct impact on the livelihood of the community and economic growth. These constraints are the results of existing social, economic, natural and cultural factors. In particular, women's

economic dependency, local culture and traditional practices were raised as the root-causes of all women's problems. Thus unleashing the potential of women who constitute about half of the population is central to the PASDEP strategy. This involves liberating women from low-productivity tasks, and increasing their participation in the economic, social and political processes. Measures to achieve this include: increasing girl's/women's education, improving access to water supply and sanitation, focusing on services related to mothers and women's health, and adapting agricultural programmes and technical training to the needs of women. In addition, safeguarding rights such as access to land, credit and other productive resources are central to the strategy. Affirmative action to promote women's participation in higher education; the opening of the ministry of gender and offices; improvement of women's issues in the constitution and formulation of policies, proclamations and packages that favour women are some of the measures taken by the government. Moreover, adoption of international conventions also provides fertile ground to improve women's situation.

Women respondents identified the following areas as priority researchable issues with regard to gender:

- Technologies that can reduce women's workload; this will relief them and allow to participate in social, political, other economic activities/processes.
- Income generating cash crops like garden vegetables;
- Study on women's confidence, self-esteem and decision-making and acceptance.
- Research on the roles, problems and constraints of women in different sectors and organizations; looking into ways to improve their participation in the social, economic and political processes.
- Research into aspects of harmful traditional practices as they primarily act against the weakest section of the society such as women and children,
- Research focusing on women's schooling at primary and secondary schools as many female students tend to drop out at these stages; especially, identifying factors depressing women's participation in education.
- Research into women's participation and benefit from the capacity building efforts of the country.
- Generally, research on such areas as health, education, equity, resource endowment and empowerment in relation to gender was highlighted. In particular, looking into how to resolve problem of economic dependency, and how to bring them to leadership position and decision-making process.

4.5.3 Education Sector

The Government launched the National Education and Training Policy in 1994. The general objective of the policy is to produce skilled human-power with the necessary quality and quantity. The Government also launched a twenty-year education sector indicative plan to implement the policy. The main goal of the plan is to improve educational quality, equity, and relevance with special emphasis on primary education for all by 2015. Some of the strategies to attain the above goals include: Strengthening community and NGOs participation; low cost school construction; expanding primary education coverage, increasing the role of non-formal education; building the capacity of institutions; giving emphasis to the ethical values of teachers; and providing support to increase women's participation in education and to help children that have special needs. As a result of these policies and strategies, education has expanded considerably in recent years; many public and private schools and higher learning institutions have been opened, though the quality of the education has become an issue of major concern.

Education research

It was felt that the government's effort to expand the education coverage had impact on education quality. Respondents believe that research is required to guide such expansion. Approaches to increase the coverage and reach of education as well as improvement of curricula should be based on research. Ongoing assessment is also required on its effectiveness and impacts. Even after improvements are made there is a need to assess how and why further improvements can be made.

It was felt that in Ethiopia educational standards, including the quality of teaching have declined over the past 30 years, particularly in public institutions. During the military regime, the main reason was inadequate public investment in education services, while under the current government quality has suffered due to a rapid expansion in school enrolment. Declining quality of education was felt to reflect poor quality and inadequate supply of text-books, poor skills of teaching staff, equipment and infrastructure. Opinions differed with some mentioning a need for research at all levels including kindergarten, but there was a strong feeling that special attention needs to be paid to tertiary level education. Another strong view was that first the quality of training of the teachers needs to be addressed before looking at training per se. Also, that methods and curricula need to reflect market demand for skills. Frequent changes in education curricula were considered as an indicator that further research is needed. An example was given of the TVET programme (Technical and Vocational Education and Training) that was an approach developed in Germany (where it works well) and brought to Ethiopia. The objective of TVET was to provide vocational training at diploma level to students. However, it is now being seen as an alternative route to University rather than focusing on building skills for the work-place. The quality of private tertiary education was also a major concern and needs to be assessed.

One stakeholder said that currently in Africa education is very top-down 'depositing' information into students and not teaching them how to learn, how to think or how to go about problem solving. Research is needed to develop approaches for experiential learning in different areas of education such as the methods used in Farmer Field Schools. Another mentioned that research should focus on adaptation and adoption of proven methodologies used elsewhere in developed countries but modified to fit the Ethiopian context. On the other hand, although in recent years there has been encouragement to send girls to school there needs to be greater understanding of the obstacles to their participation and how to ensure sustainability. It was suggested that more attention should be given to how to effectively build capacity of female students in universities in a sustainable manner.

5. Research implementation

This section discusses research priority setting processes, relevance of and demand for research findings; research communication including current practices, drawbacks and suggestion for improvement; current practices and preferred ways of partnership; and capacities required to carry out research, communicate, access and utilize findings.

5.1 Demand

The majority of respondents (across sectors) felt that research agenda setting in most cases is considered the exclusive domain of researchers with little or no active involvement of relevant stakeholders and users. Although there are some cases where research has made a huge

contribution to policies and practices², research findings often remain on the shelf; most of them lack appropriateness and mechanisms of communication. Some respondents from the health and governance sectors indicated that research somehow helped policy makers to seriously consider some issues.

Box 1 Agricultural Research as example of best practice

Of the different sectors, the experience of the agricultural research in involving users and other relevant actors in research agenda setting and other processes was indicated as encouraging one. Agricultural researchers, in recent years, have been using various mechanisms to establish linkage with relevant actors, to make research needs-based and demand-driven. The establishment of the Research-extension-farmer advisory council (REAC), whose members are drawn from relevant institutions, has played important role in giving guidance to research agenda and in feeding back information. However, the council was not without limitations. It does not include all stakeholders; it has problem of accountability and authority; it is not organically linked to the sector ministry, and not budgeted by the government.

Lack of mechanisms to elicit demand for research

Respondents in the other sectors indicated that there is no such mechanism/forum that brings together researchers, users and other stakeholders to exchange views and information and set research agenda. Non-respondents indicated that often they are not aware of most of the available research findings and the ongoing research activities. Lack of coordination, synergy and duplication of efforts were frequently mentioned by respondents.

Lack of relevance and utility of research findings

Unlike the experiences of the agricultural research, most of the research activities in the other sectors are carried out by academia and students based in higher institutions (for academic purposes), who tend to lack exposure and experience about real situation on the ground. They often base their research agenda on their own assumption and on what they read from books. Even some researchers believed that at present research hardly reflects users' priority needs. They also partly agree with the view that researchers do not fully involve users and other stakeholders in the research priority setting and processes. They indicated that there is improvement with regard to stakeholders' participation in agricultural research priority setting. Apart from the establishment of REAC, they also emphasized the role of different surveys, and on-farm participatory trials. Both researchers and non-researchers believe that mechanism/system needs to be developed to make researchers accountable for their findings.

Some researchers felt that most research findings benefited resource-rich men, and adults (with better resource endowment). The poor lack financial capacity to pay for the new technologies and inputs. But others believe that research benefited different categories of the society. Some respondents felt that there are relevant pieces of research that have not been communicated to users. In particular, some agricultural researchers indicated that crop protection researches often tend to address existing problems more than others. Almost all respondents agreed that involvement of relevant actors in setting research agendas and in the whole research process would make it targeted, problem-oriented, and address priority issues; it also facilitates communication and dissemination of the results. It was noted that different institutions carry out some sort of research to assess problems and gaps, especially for planning purposes. They believe that there is a high likelihood for such information to be utilized by policy makers.

² For instance, the success of maize research in influencing policy and government strategy and the breakthrough demonstrated on the ground (with the support of SG-2000) was mentioned as one of the success stories in Ethiopia.

Box 2. Examples of good practices

Some initiatives are underway by some institutions to make research more focused and problem-oriented. Respondents from the Ministry of Health, Ministry of Justice and the Environmental Protection Authority indicated that they carry out some studies, and felt that they are the ones most appropriate and help in planning and in designing or revising policies. For example:

- Recent research findings on human trafficking, and researches conducted by IOM on refugees in different countries are relevant and need-based.
- Activities are underway in FEPA to identify priority problems and researchable issues using various mechanisms. These researchable issues will be publicized and made available to researchers on the web and using other means of communication. The issues will be regularly up-dated. EPA also has a plan to establish link with the universities to get access to research findings.

Politics of research

Respondents felt that only research findings that are in favor of and support the governments' political ideology may be used in policy making. Politically sensitive ones are often ignored regardless of their merits and strength. Respondents in the health sector, institutions related to environment, justice system, and those working on gender issues indicated that many people conduct research but the efforts are very much fragmented and not coordinated. They indicated that these researchers come to their office merely to collect data without involving them in the research agenda setting, planning and implementation. They also do not give the feedback on the findings/recommendations. Moreover, concerns were expressed during the workshop that much of the research is donor-driven, particularly in the areas of health and this does not always focus on national priorities since the donor's agenda tends to address global problems. However, even where there are global issues local inputs to characterize the issue and refine the research questions should be taken into account.

Recommendations

Participants of the workshop suggested mechanisms such as the experience of the REAC of the Agricultural Research with some modifications to identify and characterize demand and develop a research agenda that responds to priority issues. Although this council is not complete in terms of members and has a problem of accountability and powerlessness (authority), it was felt that this experience could be used as a foundation for other sectors as well. The research-extension-users council suggested by the group could be composed of all relevant stakeholders. The council should be organized with clearly stated mandates, duties and responsibilities. The council should be budgeted, accountable for its mandated activities, and its meeting should be more frequent than the existing REAC. This can be organized at district and zonal level and linked with respective ministries. Effective monitoring mechanisms should also be designed to enforce the issue of accountability.

5.2. Communication**Limited research communication mechanisms**

Almost all respondents felt that the bulk of research findings remain on the shelf, mainly because of lack of proper communication mechanisms. They stressed that what has been lacking in the hitherto made research process is the communication element. The ultimate target has been getting findings published in scientific journals or submitting dissertations for graduation purposes. In most cases communication and implementation of the findings or recommendations have not been considered as part and parcel of the research process. Therefore, funders should seriously consider the communication aspect and implementation of

the research findings while supporting research activities. Some respondents even felt that we should commit the lion's share of research fund to communicating and putting existing technologies/information to use. But the majority felt that a balanced investment should be made both on new research and on communication of existing findings. They indicated that we cannot separate doing research and communication of findings; we need new research to address emerging issues and existing gaps, and to continually evaluate and refine existing information/technologies. Equally findings should be continuously communicated to users.

Agricultural research communication mechanisms: some encouraging practices

The communication of agricultural research findings appeared to be relatively more effective. Agricultural researchers communicate their findings through: on-farm adaptation and other participatory trials; field and open days; on-farm demonstrations, leaflets; production manuals, and other publications; workshops and conferences, trainings, exhibitions, etc. Moreover, farmers' research groups, farmers learning/training centers, farmer field schools and internet were mentioned by some agricultural researchers as effective and alternative ways of communication. The role of REAC in creating favorable conditions for communication of research results and feedback on technologies was also praised by respondents.

Challenges of accessing research findings

Researchers in the other sectors appeared to lack such mechanisms to disseminate their findings. It was indicated that they mainly rely on workshops, publications such as journals and rarely use simple materials such as leaflets. Information related to the constitution and legal issues has been disseminated through workshop/presentations and discussions, media (radio and TV), bulletin, newspaper, and leaflets, and to some extent websites. Almost all non-research respondents in the other sectors (other than agriculture) indicated that it is not easy to access available information (research findings). Some respondents stressed that getting access to information is not easy in Ethiopia; people get access to information if and only if the holder wishes to release them. Awareness is needed for researchers that their findings are public properties and they have a responsibility to pass them to intended users. This can be part of the binding agreement between funding organizations and the researchers.

Most respondents also indicated that they rely on personal contacts and internet to access information. They also obtain information accidentally, not through planned communication. Non-research respondents pointed out that most of the research communications. Research reports are too technical and sophisticated for most users to understand, and emphasized the need for having them in summarized simple forms (with simple languages). Even some researchers felt that research reports are too technical (academic) and target prestigious publications than grass root community. Research communication needs to consider the cultural set up, local language, level of education of target groups and time of dissemination. A senior agricultural researcher also pointed out that the way workshops are organized to communicate research outputs needs to be critically considered. Researchers often want to show the sophistication of the processes through which they went rather than the content of their results. Thus research reports need to be very brief in content, and easy to understand.

Limited private sector linkages

The private sector is very active in the health training and service provision in Ethiopia. However, there is a gap in communication of research results and emerging health issues between the public sector and private institutions. According to actors in the private sector, workshops and different trainings are not targeting them. They mostly rely on internet and personal efforts to get information than institutional linkages. Health professionals working at the

grass roots also indicated that they do not have any idea about the types of research being undertaken in the country and results already released. Health information is mostly disseminated through mass media (radio/TV), posters, leaflets, brochures, manuals, workshops, training, and in the form of campaign.

Developing research communication capacities

Researchers believe that they need to be supported to develop their understanding and skills regarding how to communicate their outputs. They emphasized that writing a scientific paper should never be an end in itself. We need to aim to aggressively communicate our findings to intended users in a way that they can access, understand and make effective use. Recognition mechanisms should not focus only on prestigious publications; different motivation and rewarding mechanisms should be designed for researchers to encourage them effectively communicate their findings. It was also indicated that effective communication strategies and guidelines are lacking at an organizational level. Thus each institute needs to develop a communication strategy and allocate resources for communication of research findings. The need to adequately incorporate communication courses in higher institutions curriculum was also underscored. Moreover, some felt that media people need to be properly trained on the issues (sector) they focus on.

Some non-research respondents pointed out that we have not developed the culture to push forward and seek for information or research findings. We need to change that culture and knock at the door of researchers and look for available technologies. In addition, the structure of most institutions also does not allow active communication among researchers and users or intermediaries. There is lack of capacity (mainly lack of education) among beneficiaries to claim research findings and influence research agenda. Action research was suggested as one of the means to ensure researchers connect more effectively with beneficiaries. This enables users to properly follow up the research process and easily understand the results. Moreover, two way communication was said to be necessary; not just dissemination to users.

Gender dimensions

Female respondents indicated that research often does not take into consideration women's problem and priority needs and criteria. As a result, the findings lack relevance and appropriateness and this is as bottleneck to effective communication. Moreover, they emphasized that the communication channels used by researchers or intermediaries are often not suitable for women. Research reports are too technical and complicated for women (the majority of whom are illiterate); they are often prepared in English for the sake of donor's interest or academic purpose. The training, workshop and field days often focus on male farmers. They are often organized during times that are not suitable for women to attend. Moreover, researchers come to offices related to women/gender only when they seek information; they do not communicate back their results.

Challenges in communicating with grassroots

In general, the majority of the civil servants and researchers showed preference for internet/website as effective means of accessing information, and emphasized the need to improve internet facilities. But for the other users, especially, those at grass-root level, the need to encourage the use of language and culture sensitive simple materials like posters, leaflets, brochures, manuals, training, and other face-to-face interactions were suggested. Moreover, the need for organizing field days, research station visit, field trips and policy briefs for politicians and officials was emphasized. Looking into possibilities of training policy-makers on some technical issues was also mentioned.

Generally, the following mechanisms were suggested to communicate research findings:

- Using existing School Net – where plasma TVs are placed in schools,
- Internet,
- Workshops, seminars, trainings, regular meetings of multi-stakeholder groups,
- Mass-media, and simple and targeted publications,
- Establishment of professional networks to share information,
- Policy briefs, press releases, press conference; and reports.
- Research-Extension- user advisory council,
- On farm demonstrations and other participatory trials, farmer field schools, learning/training centers, field days, and field visits, and others.

5.3 Partnerships

A number of local, national and international organizations including multi- and bilateral donors were mentioned to closely work with different institutions/sectors.

Benefits of partnership, and local partnership

The involvement of donors and other international partners was in the form of developing and implementing joint projects, funding and capacity building. Respondents emphasized that establishing partnership with local partners would allow to pool resources, share experience and information, coordinate efforts and create synergy. Respondents also identified the need to encourage local partnership and especially enhance local innovation.

Public-private partnership

Most respondents felt that public-private partnership is far below the desired level and needs to be strengthened. Private sectors can conduct or finance research, build capacity, help identify priority areas and make research demand-driven and client-oriented.

Partnership with donors

Some researchers felt that donors sometimes do not address the national research priorities. They tend to impose their own agenda. They also sometimes attempt to copy experiences of other countries and replicate in Ethiopia. These often encountered failure. Respondents emphasized that donors should encourage local or nationally-grown initiatives; they should adopt participatory, consultative and democratic process and procedures. One of the researcher focus groups on agriculture indicated that some funding agencies have priority areas or crops; however, they can still focus on priority issues within that specific area. For instance, European Union supports coffee research. Others respondents believe that we have to be able to negotiate and guide donors to support us on our priority areas. Especially those working in the health sector indicated that these days donors are pooling their resources to support government's strategy and priority agendas. In general, the influence of donors and international partners did not seem to be huge in priority setting; they more or less attempt to support national priorities. PASDEP appears to guide the operation and support of many donors.

Most respondents indicated that it would be beneficial to establish partnership with those partners that support linkage and networking with other stakeholders, promote participatory process, capacity building, research and communication/dissemination of results. Partners with transparent procedures, that would allow shared and equal decision making, and flexible to set

objectives and plan to address national priorities were mentioned as preferred ones. Most respondents stressed that donors/partners need to focus on capacity building and empowering the national staff and local institutions.

5.4. Capacity Building

Lack of capacity was a cross-cutting problem for all sectors under consideration. All respondents indicated lack of capacity at different levels to carry out relevant and effective researches, to communicate findings as well as to access and use information. In particular, the problem of competence of policy-makers, intermediaries (such as extension workers) and grass-root communities was frequently mentioned.

Need for strategic and systematic capacity building

Respondents emphasized that capacity building should not be traditional. It should be systematic and strategic. One respondent indicated that "we do not need donors who simply buy and give us a computer. We need those who show us how to manipulate it, use it and fix it". In general, the need to focus on need-based and continuous skill building short-term training and experience sharing visits was emphasized by all respondents. However, some researchers tended to emphasize the need for training that lead to specialization and qualification up-grading on specific disciplines and support in terms of some critical facilities such as laboratory facilities. High level technologies such as molecular laboratory facilities were mentioned by some researchers. They indicated the need to strengthen the capacity of national research system in bio-technology and tissue culture laboratories since this area is at its infant stage in Ethiopia.

Capacity building for researchers on methodology and reward mechanisms

The need for knowledge and skill building on research methods/techniques and analytical software was felt by researchers and some servants (those who carry out some sort of research). Especially, respondents working in offices related to environment indicated the need for knowledge building on methods and techniques in relation to climate change research. Training on participatory approaches and techniques as well as developing communication skills of researchers and intermediaries were also emphasized. In addition, most of the non-research respondents indicated the need for creating awareness among researchers and develop proper understanding of why doing research. The need to develop and improve access to certain communication infrastructure such as ICT was also raised. Moreover, recognition of excellence, rewarding and motivating researchers, especially innovative and young researchers was emphasized by many stakeholders. The need for providing incentive packages to retain trained human resources in the research system and generate better results was also emphasized. In particular, the need to support higher learning institutions to pay better attention to research was highlighted. A civil servant respondent (from the governance sector) emphasized the need to encourage practitioner researchers; said in most cases we do not need highly qualified expatriate; so it is important to build local capacity that allows us to address our own issues.

Capacity building for policy makers and civil society

The need for raising awareness and competence at policy level to enable them access relevant information and exercise evidence-based policy-making was repeatedly mentioned. It will also enable them to understand and follow up the research process. Virtually, all respondents indicated the weakness or absence of linkage and network among relevant stakeholders and stressed the need to support the creation of such linkage mechanisms and interaction. Some respondents mentioned the need for supporting and nurturing civic societies to promote awareness and empower the community.

Capacity building for communication with grass-roots

Supporting development of communication media that facilitate access to research finding was highlighted. Respondents stressed the need for building strong monitoring and evaluation system in the research system to ensure accountability. Especially researchers believed that capacity building needs to focus on promoting networking, enhancing partnership, linkage and sharing of information/knowledge/technology. All respondents emphasized the need for concentrating training at lower levels such as extension workers and farmers. Regular training programmes for extensionists on the technologies to be disseminated, problem/need identification using tools like PRA, and on communication skills was considered crucial. In addition, the need for improving facilities such as local extension offices, farmers' training centers, and provision of audiovisual materials were mentioned. In general, creating conducive working environment and better facilities in remote areas like pastoral lowland areas was emphasized as a mechanism to motivate and retain staff.

Capacity building to improve access to information and in developing data-bases

The need for strengthening capacity with regard to getting information on climate change using satellite and GIS; predicting risks and taking preventive measures was also raised. Respondents from the justice system emphasized the need to support networking database, plasma and video conference up to woreda level. The need to help the country to develop and have central data system; availing information and making it public domain was emphasized by respondents from the governance sector.

Capacity building for women

Women respondents emphasized the following issues: Creating/strengthening women's information center (requires technical and financial support); encouraging gender mainstreaming in different institutions and programs; encouraging women researchers by offering training opportunities and financing their research proposals; offering gender training for all planners in the different sectors of the economy and sensitizing them.

References

- Demese, C. 2006. Policies for Commercial Transformation of Ethiopian Agriculture. *In* Commercialization of Ethiopian Agriculture. Proceedings of the 8th Annual Conference of the Agricultural Economics Society of Ethiopian. Addis Ababa.
- Ethiopian Economic Association. (2005. Report on the Ethiopian Economy. Transformation of the Ethiopian Agriculture: potentials, constraints and suggested Intervention measures. Volume IV, 2004/05. Addis Ababa.
- Human Development Report 2006/07. Country Fact Sheets - Ethiopia. UNDP
- Human Development Report. 1998. UNDP.
- PASDE.P. 2006. Ethiopia: Building on Progress A Plan for Accelerated and Sustained Development to End Poverty PASDEP. 2005/06-2009/10. Volume I: Main Text. Ministry of Finance and Economic Development (MoFED), September, 2006, Addis Ababa.

Appendix 1: Methodology

The consultation exercise involved various methodologies and processes and the following were the major ones.

Gathering stakeholder contact lists

Initially contact lists were obtained for relevant stakeholders to be considered for the different sectors. The lists were obtained through discussions with relevant offices/institutions and individuals in Ethiopia, DFID, ODI, CABI Africa and other organizations. Effort was made to get a fair representation of the stakeholders across different sectors and actor groups.

Planning workshop

A four day planning workshop was held in Nairobi and all partners (including CABI Africa, DFID Central Research Department, ODI, PICO-team Uganda, CAPPS-Nigeria, and Asia Consultation team) attended and held detailed discussions. Representatives of DFID Central Research Department also gave clarifications on certain issues. During this workshop, planning of the activities and processes of the consultation activities, details of methods and techniques to be used, key areas to be addressed, and stakeholder to be targeted were discussed and identified.

Checklist/semi-structured questionnaire developments

Semi-structured questionnaires were developed by the coordinator of the consultation activity and circulated among country partners for comments and inputs. Accordingly, the country team adopted the checklist with minor modifications to fit country specific situations.

Key informant interviews and focus group discussion

Focus group discussions and key informant interviews were carried out with selected stakeholders in various sectors and designations. Prior appointments were made with respondents after explaining the purpose and objective of the consultation process to secure their willingness. Focus group discussions were mostly held with groups of people within the same sector to obtain detailed information on certain issues. In addition to respondents from Addis, efforts were also made to obtain views of respondents in different regions. In this regard, the team conducted interviews and discussions with stakeholders in Arsi zone (Asela, Sagure, Bekoji, Asasa, and Kofele) - 175 to 250 Km South-east Ethiopia, Bale zone (Dodola) - 275 Km South-east Addis, East Shewa zone (Nazareth, Shashemene, and Welenchiti) - 100 to 250 South and South-east Addis, Holleta - 44 Km West of Addis, Bako - 200 Km West of Addis, Jima - 350 South-west of Addis, and Southern Regional State (Awasa) - 275 Km South of Addis. In particular, women respondents were specifically targeted to balance their representation and seek their views. The following table shows the number of key informant interviews and focus group discussions held across sectors and actor groups. In general, the individual key informant interviews and focus group discussion took 30 - 90 minutes and, **74** stakeholders (45 individual key informants and 12 focus groups with 29 participants) were consulted using these approaches.

Table 1. Key informant interviews and focus group discussions conducted

Category of informants	Agriculture	Health	Climate change	Governance	*Key informant interviews	*Focus group discussions
Researchers/ think tank	10	2	2	2	10	2
Civil servants	5	3	9	4	12	4
Private sector	1	1			2	
Intermediaries	14	6	5	4	15	6
CSO/NGOs	1	2	2	1	6	
Total	31	14	18	11	45	12

**The issue of key sector for investment and drivers of growth was raised to all respondents regardless of their sector. It was discussed at the beginning of the interview with stakeholders related to agriculture. But it was addressed at the end of the interview with the rest of the stakeholders after establishing good rapport and confidence. This also helped first to concentrate on their areas of specialization and primary concern/interest.*

Workshop

A two-day in country workshop was held in Ethiopia from 06 - 07 November, 2007 to further deepen the information obtained through key informant interviews and focus group discussions, as well as to generate further information. An attempt was made to invite participants representing the 4 research areas currently emphasized by DFID and a spread of different types of actor or stakeholders. To ensure fairly good representation of stakeholders, a large number of invitations were sent out. Finally, 29 stakeholders drawn from different sector and actor groups attended the workshop. Representatives of DFID also attended the workshop. The workshop was held in a participatory and interactive way using various techniques which enabled the generation of detailed information and views. In particular, group discussions and presentations, card collection, challenge statements and open space approaches were used.

Appendix 2: Workshop report

Consultation on DFID's Research Strategy 2008-13

**Stakeholder Workshop
Addis Ababa, Ethiopia, 6-7th November, 2007**

CABI Africa

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Participants

An attempt was made to invite participants representing the 4 research areas currently emphasized by DFID in their research strategy and a spread of different types of actor or stakeholder. Of more approximately 70 invitees, 29 attended, with the main representation being civil servants from a number of different public bodies together with 4 NGOs, 3 elected politicians, 4 researchers and 2 people from the private sector (see matrix below). Details of organisations represented are given in appendix 1.

Sector	Civil Servant	NGO	Politician	Private sector	Research
Agriculture	2	0	1	1	2
Climate change	2	0	1	0	1
Governance	4	3	1	0	0
Health	4	1	0	1	1

Session 1: Introduction and Welcome

A brief welcome was given stating that the objective of the workshop was to gather Ethiopian views and opinions on research priorities and processes that would feed into a broader consultation process DFID was carrying out to inform development of its research strategy. The main principle of the consultation that was stressed was that we were not seeking consensus but were trying to identify the broad range of views. Other principles included:

No stupid questions	Honesty	Informal and relaxed atmosphere
No politicization	Inclusive open dialogue	Thinking beyond the box

Participants were asked to introduce themselves to 2 people they did not know and discuss expectations and fears which they wrote on cards. The cards were clustered and addressed as follows, a complete list as they were posted is given in Appendix 2.

EXPECTATIONS	
1 card mentioned wanting to know about DFID's programme and research strategy and the way they inform policy makers.	It was explained that limited information would be given about the current strategy beyond the brief presentation and the set of distributed fliers since the main objective was to gather Ethiopian views
4 cards expressed the expectation that research priorities would be identified in the four areas that could positively impact on poverty reduction, livelihoods and environment.	It was explained that although there would be the opportunity to comment on research priorities identified in key informant interviews, the focus of the workshop would be on research processes
7 cards talked about expecting to learn from each other, specifying a number of aspects about the research process including capacity building, communication, research into use and ways to prioritise research on good governance	The facilitators hoped that all these issues would be covered
4 cards talked about influencing both the DFID research strategy and government plans and hoped that sound planning would bring positive change	It was stressed that the input would contribute to development of the strategy but that views would be considered alongside views from a number of other quarters.
FEARS	
2 cards were concerned with how the input would be fed into the strategy and whether the relationships would be sustainable	It was mentioned that DFID wished to continue engagement with participants using electronic media but that the output would be considered alongside other consultation inputs
4 cards feared that the diversity of the group would make communication difficult and hinder contributions	It was hoped that the diversity would stimulate diverse views and stressed that the key informant interviews would allow different views to be elaborated
3 cards related to fears about whether specific issues would be captured effectively	The facilitators hoped that individuals would take responsibility to ensure issues were well captured
3 cards were fears related to conduct of the workshop including time constraints	The facilitators hoped people would not waste their time being there and in relation to the short time period it was stressed other approaches were being used to capture ideas
1 card was added after the session related to concerns of an agricultural bias	

Session 2: Drivers of economic growth

A Challenge Statement (see Box 1) was projected onto the wall and participants asked to consider the statement and decide whether they Strongly agreed / Agreed / Neither agreed nor disagreed / Disagreed / Strongly disagreed. They were then asked to stand next to cards representing each of these positions posted at the end of the room. Once people were standing next to the cards a discussion was facilitated about the statement which is summarized below.

Box 1: Challenge Statement on economic growth and the role of agriculture

Agriculture will not stimulate economic growth. Over last decades there has been investment in agriculture but with limited impact. We should therefore focus on other sectors of the economy to accelerate economic growth and improvement of well-being.

It was pointed out the statement was actually two statements and that agreeing with one did not necessarily imply agreement with the other. Acceleration and stimulation to economic growth were considered to be very different aspects, stimulation implied kick-starting growth while acceleration implied sustained and increasing growth. It was also agreed that the participants would specify whether their opinion applied to an Ethiopia, African or global context. It was also pointed out that we needed to recognise concepts of National economic growth as well as economic growth of individuals. These concepts differentiate between economic growth of the country and livelihoods of the masses.

Once participants were comfortable they understood the statement and had decided on their standpoint they moved to position themselves next to cards. The majority disagreed (13) or strongly disagreed (3) while 6 agreed and another 6 were ambivalent. Nobody strongly agreed.

Disagree: A number of people argued that in the Ethiopian and African context the principal assets were natural resources including land and labour and that agriculture contributes to a large portion of economic growth. It was pointed out that in Ethiopia, 85% of the population was employed in agriculture and investment in these people would lead to significant change. Some claimed that there were many countries that have used agriculture to grow although many also felt that change was needed in the sector. A view was also expressed that Africans stood a greater chance of competing in world markets by improvements in some of their agricultural production rather than attempting to compete in other industries.

However, there were provisos given to the contribution of agriculture. Some felt that agriculture would only contribute to growth if there was a shift from subsistence farming to mechanization and commercialized activities. Such mechanization would require consolidation of land holdings which would be highly political given the numbers of Ethiopians depending on the land. Others felt that supporting institutions needed strengthening and communications improved between them. Establishment of market infrastructure, commercialization, better extension provision and facilitation of a more effective infrastructure for information exchange was also mentioned.

Many of those that argued that agriculture contributed to growth agreed that there also needs to be increasing focus on other sectors to stimulate growth. Industry and services were mentioned, pointing out that in many cases industry could also be related to agriculture through processing industries. It was felt that for development of alternative sectors capital was needed and that agriculture could stimulate growth by providing the capital to fuel other areas. Sectors such as education and health were also mentioned as being areas important if growth were to be sustained.

Agree: A few people argued that agriculture will not sustain or accelerate growth since it is based on land which is limited and is a risky enterprise exposed to climatic variability. So although it was recognized that the sector employed the bulk of labour it was felt that Africa could not rely on this for too many more years and that it doesn't fulfill requirements to be a

leading sector. The fact that rich countries continue to subsidise agriculture, despite heavy investment in mechanization and other technologies, was given as evidence that the sector was unlikely to accelerate growth in Africa. Overall though it was still an important sector it was more likely that other sectors such as mining, other industries, services, trade and commerce would bring development and economic growth in the fastest way.

Nevertheless those agreeing with the statement did not recommend neglecting the agricultural sector all the time that the larger portion of society was dependant on it.

Session 3A: Consultation background: Presentation of consultation objectives (D Romney, CABI Africa)

DFID is currently developing a new research strategy that will guide investment into research during the period 2008-2013. The DFID budget is set to double from 110 to 220 million GBP per annum by 2010, making DFID the biggest government funder of research. The new strategy will allow DFID to refocus on key issues, develop innovative ways of working and establish new partnerships.

DFID are very anxious to consult as widely as possible and to gain views from UK and International organisations as well to receive input from Southern countries where they work, particularly in Africa and Asia where the majority of their activities are targeted. Mechanisms to gather input include:

- Electronic consultation
- Consultations in Africa (Uganda, Nigeria, Ethiopia) and Asia (India and Bangladesh)
- Workshops in China and South Africa
- Consultations with other donors
- Consultations with UK research councils
- Consultations with regional and international bodies

The electronic consultation was open to all, however the majority of respondents were researchers and Northern countries were better represented than those in the South. Country consultations in Africa and Asia were seen as a means of addressing this imbalance. Uganda was chosen, not because DFID expect to target funds there, although already there are 10 partner organisations based in Uganda (see Figure 1), but because Uganda, together with Nigeria and Ethiopia were seen as countries that would be representative of African views.

Outcomes of the broader consultation process, including the country consultations will be posted regularly at the following sites and DFID hope to contact participants in the consultations directly using email addresses. Workshop participants are requested to provide email addresses, but to let us know if they DO NOT wish to be contacted.

- www.research4development.info
- http://www.dgroups.org/groups/r4d-consult/index.cfm?op=dsp_info
- <http://r4dconsult.wordpress.com>

DFID's main research themes under the current strategy, all of which are aimed at finding better ways to lead to economic growth and poverty reduction, absorb 2/3 of the budget and include the following:

- Sustainable agriculture
- Health (killer diseases and healthcare)
- Climate change (impact and adaptation)
- Governance and social research (states working with the poor)

Another 1/3 is spent on education, other aspects of health, social and political change, transport, energy and water.

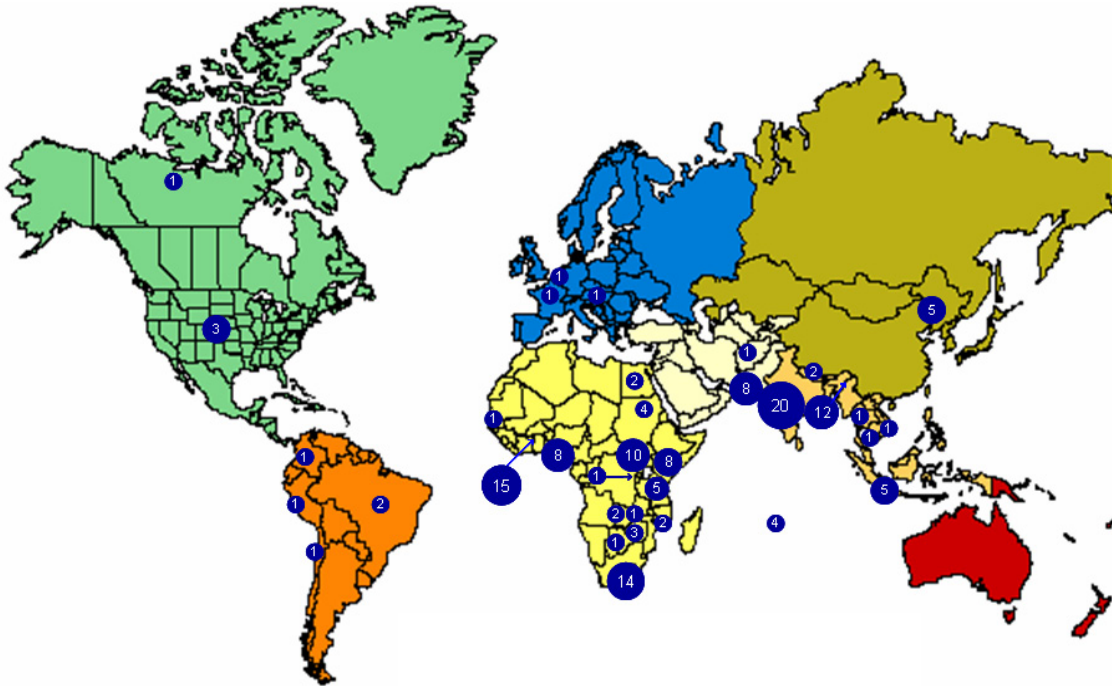


Figure 1: Location of non-UK based bilateral research programmes' partners

Management of the country consultations in Africa have been contracted out to CABI and the Overseas Development Institute working together with country teams in Ethiopia (CABI), Uganda (PICO team) and Nigeria (CAPPS). The consultations involve a range of approaches to seek input from Ugandans including Key informant interviews; Focus group discussions; Quantitative questionnaire and the present Workshop. The idea of the combination of approaches is to obtain different views in different ways. The workshops allows individuals to respond to other views and opinions, it also allows people to comment on preliminary feedback and input. Participants in the process have been selected from across the main DFID target sectors and from different stakeholder (actor) categories as shown in table 1.

Table 1: Selection of participants

	Health	Climate Change	Agriculture	Governance
Researchers/Think tanks/Academia	3	2	3	3
Politicians	1	1	2	1
Civil Servants	4-6	2	3-4	3-4
CSO/NGO	2-3	2-3	2-3	2-3
Private sector	2	1-2	2	
Beneficiaries	2		2	
Public sector intermediaries/	2		4	1

In order to sum up it is helpful to emphasise that the consultation is not seeking a consensus, but aims to obtain the range of views and opinion from Ugandan stakeholders. It should be noted that DFID make no promises at incorporating all views since it must respond to a global stakeholder constituency. However it considers the views of Africans and Asians invaluable to the process of strategy design.

Session 3B: Consultation background: Presentation of outcomes so far (Getachew Legesse, EIAR)

Key informant interviews and focus group discussions conducted so far.

Detailed interviews and discussions were held with representatives of different institutions directly related to the four focus areas - agriculture, health, climate change and governance. Selection of the interviewees was purposive with the view of obtaining the information from relevant institutions and personnel.

Key informant interviews and focus group discussions conducted so far

Category of informants	Key informant interviews	Focus group discussion
Researchers/think tank	7	2
Civil/public servants	12	4
Private sector	1	
Intermediaries	15	6
CSO/NGOs	5	
Total	40	12

Over all, **69** stakeholders (40 key informants and 12 groups with 29 participants) have been consulted in the form of key informant interviews and focus group discussion.

Views and information obtained from the consultation process

Key sector for investment

The majority felt that agriculture continues to be the basis of all social and economic development in this country. In the short term investing on agriculture would be the best or most viable option to stimulate growth and development in Ethiopia. The fact that over 85% of the population is rural and about 80% is employed in the sector leaves little option to shift to. There is enormous potential in terms of natural and human resource to bring improvement and development in the sector.

However, almost all indicated that agriculture needs to be transformed. Mechanization and commercialization are inevitable in the future if significant breakthrough is to be achieved. Investment in irrigation is a high priority issue in the effort to transform agriculture from being a subsistence oriented or unpredictable risky business to a commercialized sector serving as a spring board for the economic transformation of the country. It was felt that producers need to become market-oriented and that there would be no progress with subsistence farmers relying on traditional farming technologies and practices. In addition, the need for integrating agricultural development with natural resource conservation was underscored. At the same time, most respondents indicated that other sectors such as small scale industries deserve due attention and that all sectors complement and support one another.

A few respondents pointed out that if other sectors such as the service sector (e.g. energy) are given the kind of support rendered to agriculture, there could be better return and contribution than the agricultural sector does.

Constraints in the 4 target sectors

Agriculture	Health
<ul style="list-style-type: none"> • Weak linkage between relevant institutions • Research not based on real problems • Lack of participation of stakeholders in priority setting and at different stages of research • Shortage of and sky-rocketing prices of inputs • Lack of trained man-power and low knowledge base (especially, producers and extensionists), • Dependence on rainfall • Highly fragmented and subsistence-oriented production/farming, • Low level of improved technology and input use; low productivity, • Problems of implementation of policies and strategies, • Low productivity of land, livestock and natural resource degradation. 	<ul style="list-style-type: none"> • High maternal and child mortality rate • Major killer diseases such as HIV/AIDS, malaria, TB • Poor access to clean and safe water and sanitation, • Change in disease trends, incidence and cycle as a result of environmental/climate change, • Failure to communicate/deliver most of the research results to users. • Design of research activities did not consider the delivery mechanism. • Lack of demand driven and relevant research; • Methodological problems in most of the research • Most of the research results were not publicized/disseminated
Climate Change	Governance
<ul style="list-style-type: none"> • Every researcher acting individually to achieve some thing based on his/her curiosity. • Participation of relevant stakeholders is lacking in almost all past research activities. • Some recommendations generated in the past are expensive to implement, • There is a mandate conflict among institutions to implement some of the outputs, • Instability in the organizational structure of institutions dealing with Natural Resource and Environmental Protection 	<ul style="list-style-type: none"> • Cultural and attitudinal (mind set) problems that are resistant to change and new technologies and procedures. • Lack of monitoring mechanisms in most of our systems, • Lack of accountability, transparency and efficiency in most public institutions. • Low level of awareness among people regarding existing policies, laws or legal issues, regulations, • Problems in implementing policies, proclamations, regulations, especially • The attitude of the civil servants in which they do not consider themselves as service providers and servants of the public. • In some sectors like court and police, the civil servant lacks the required level of knowledge and competence to undertake their assignment

Opportunities in the 4 target sectors

Agriculture	Health
<ul style="list-style-type: none"> • Presence of diverse and suitable agro-ecologies, • Presence of favorable and supportive policies, and government's commitment to improve the sector, • Abundant natural resources, • Vast livestock population, • Plenty of irrigation potential, • Access to international markets • Young generation (man-power) with relatively better training, • Better market demand and prices for agricultural products 	<ul style="list-style-type: none"> • Enabling policy environment • Government commitment to involve different stakeholders working in the health sector • Large international links (diverse partners) • Flourishing private health service providers and training institutions • The launching of health extension program
Climate Change	Governance
<ul style="list-style-type: none"> • Broad range of geo-climatic situation and the resulting huge biodiversity. • Presence of diverse ethnic groups, culture, indigenous knowledge and conservation practices. • The fact that Ethiopia accepted and signed different environmental protocols and conventions • Government commitment 	<ul style="list-style-type: none"> • Presence of good constitution and policies • Commitment of government; especially through training and mass media to raise awareness and build capacity • Civil service reform and the justice system reform • Better education opportunity and exposure to media • Promotion of civic education at schools,

Research priorities in the 4 target sectors

Agriculture	Health
<ol style="list-style-type: none"> 1. Developing technologies for commercial and/or industrial high value crops, 2. Livestock feed and breed improvement, 3. Bio-technology, 4. Assessing, testing, validating and promoting indigenous knowledge, 5. Market research e.g. marketing system and value chain analysis, 6. Investigating and developing ways of strengthening farmer, extension, research, and market linkages, 7. Fertilizer recommendation for different agro-ecologies and specific areas 8. Post harvest technologies, 9. Research on quality to assure the competitiveness of our commodities in the world market 	<ol style="list-style-type: none"> 1. Multi-drug resistance for TB and other diseases, 2. Assessment and evaluation of effectiveness of current health intervention services such as malaria bed-net and drug, and other health extension services, 3. Impacts of climate change and other environmental factors on trends and incidences of different diseases such as malaria, respiratory diseases, diarrhea, etc. 4. Identification, Validation, and evaluation of indigenous knowledge and practices associated with medicinal plants,

Climate Change	Governance
<ol style="list-style-type: none"> 1. Research on carbon marketing, 2. Effective ways of natural resource management and rehabilitation of degraded areas, 3. Impact of climate change on different areas such as agriculture, health, and others, 4. Validating and developing indigenous knowledge and practices, 5. New innovations and introduction of new crops/technologies to new areas as a coping strategy 6. Waste recycling and making effective use of by-products 7. Inventory and valuation of natural resources 8. Devising mechanisms to harvest run-off water for useful purposes 9. Studying change of ground water with climate and the adaptation (coping) mechanisms of the vegetation, rainfall distribution pattern of pathogens 10. Association of climate change with crop production pattern, distribution of organisms, change in productivity, etc. 	<ol style="list-style-type: none"> 1. Looking into existing policies, proclamations and regulations, identifying gaps/limitations and working on improvement/amendment 2. Ways of improving coordination and collaboration among different institutions 3. Looking into how to create check and balance system among the different government bodies (judiciary, executive and legislative) 4. Research on how to improve quality of education 5. Feedback system between the policy makers and the public

Session 4: Research priorities

Participants were split into the 4 sectoral groups on Governance, Climate Change, Health and Agriculture and all given the same task given in Box 2.

Box 2:

Issues listed as research priorities from initial findings have been written onto cards (see appendix 3 for full list). The task is to sort these cards and add new cards as required

- 1) Identify cards that don't really seem to be researchable issues. Where possible the rapporteur should indicate on the back of these cards why they feel these are not researchable issues
- 2) Take the cards that do represent researchable issues and split them into two groups
a) high priority and b) low priority
- 3) Add additional cards representing issues that have not already been highlighted

Governance

Most issues were considered researchable, except for that talking of establishment of women's centres, where it was considered they already existed or could be established without additional research. Three of these researchable issues were discussed and refined and an additional 5 issues added (see below)

HIGH PRIORITY RESEARCHABLE ISSUES	
Looking into how to create check and balance system among the different government bodies (judiciary, executive and legislative)	There was no consensus about the issue. Some said there was an existing system while others disagreed. Some said that what was needed was to assess the existing system with a view to improving it rather than creating one.
Research on how to improve quality of education and providing evidences that can convince policy makers and others,	This was considered very broad and only relevant to governance issues if it concerned civic education, or justice.
LOW PRIORITY RESEARCHABLE ISSUES	
Perception and attitudes of leaders towards gender equity	There was some discussion as to whether leaders should include civil servants and politicians or only traditional opinion leaders. Some felt that the former 2 groups were already aware while others felt that in many cases awareness was not the issue but perceptions and attitudes and in some cases religious beliefs led to a negative attitude towards gender equity. Although in some cases lip service is paid – radical change has still not been observed. Research to consider approaches of how to deal with gender equity – without politicizing it
ADDITIONAL RESEARCHABLE AREAS	
Government commitment and will to allow environmental protection. Is there really a commitment from government	This issue appeared to be based on arguments that evidence was needed to allow governments to assess the trade offs between short term policies aimed at feeding people which could have negative environmental effects and taking a long term view.
Institutionalisation of participation of CSOs in monitoring and evaluation	This was based on the fact that at present M&E of governance processes did not allow participation of CSOs and mechanisms were required that would allow them to do so
Role of media and communication in good governance	
Effectiveness of anti-corruption / federal government	
Monitoring and Evaluation systems in governance	

Climate Change

Of the different research areas presented to them, group members considered the majority as high priority areas, with only “Influence of floriculture industry on environment, human health and livelihoods” being seen as low priority area. Strengthening networking and initiating dialogue and lobbying to address policies affecting the environment were seen as important activities but not researchable issues. However it was highlighted that approaches to advocacy and use of research evidence to influence policy processes was a researchable issue. Four

additional research priorities emerged from the discussion as new or additional researchable priority areas. Clarifications on those issues highlighted are given below

HIGH PRIORITY RESEARCHABLE ISSUES	
Waste recycling and making effective uses of by-products.	More efficient use of waste would limit environmental pollution; decrease costs of buying inorganic fertilizer and; reduce industrial waste especially around Addis
Inventory and valuation of natural resources	An inventory would provide an effective baseline for further research
Natural resource conservation, and effective ways of rehabilitation and management	Though it was considered a researchable issue, the issue was said to be too general.
Impact of land policy and other policies on NR management and conservation,	It was strongly argued that concrete and quantified evidences are needed to convince policy makers; providing evidence to policy makers is a key issue. For example, evidence on the quantities of soil and nutrients that are lost using current practices
New and alternative sources of energy, such as bio-fuel.	It was pointed out that currently the majority rely on existing natural resources such as forests and trees for fuel and alternatives are required to conserve resources
Communication/ Dissemination of existing knowledge	Tools for knowledge sharing and knowledge brokering are required. Participants also mentioned validation of indigenous knowledge
ADDITIONAL RESEARCHABLE AREAS	
Impact of climate change on infrastructure planning, design standards, design methodologies, operation and maintenance and costs, e.g. roads, bridges, power networks, drainage, water supply	
Impact of climate change on biodiversity	
Seasonal climate prediction	
Inventory, characterization and evaluation of biodiversity	

Health

Of the areas identified during interviews as researchable areas, participants selected 7 of them as of high priority research areas, three as low priority research areas and two of them as non-researchable areas. Moreover, four additional areas were identified as high priority researchable issues.

HIGH PRIORITY RESEARCHABLE ISSUES	
Identify factors affecting attitude (and non use) of reproductive health services	Available services are not being used and there is a need to understand why.
How to improve existing systems and services; Evaluate the effectiveness of current health interventions	Helps to identify gaps and improve planning; helps to strengthen the effectiveness and enhance quality of health services;
Mechanisms to communicate existing knowledge	Research results are not communicated to beneficiaries and this area needs attention
Impact of environmental trends on diseases	Trends of diseases which are changing dynamically
Sustainable provision of community development activities/sanitation, safe water/	Key health issues related to water included - low coverage of water access, hygiene and sanitation - high burden of water born and water related diseases
Validation and use of medicinal plants and traditional knowledge	Traditional medicine can potentially be used but their effectiveness is not validated. It was felt that the majority of the population use traditional medicine and there was also a need to understand the impact of this on health
LOW PRIORITY RESEARCHABLE ISSUES	
Monitor and scale up tele-medicine	Low quality and inadequate number of professionals especially at rural areas
How to improve reproductive health education	Service is accessed at household level via health extension workers. However in the rural areas there are few capable professionals to serve the communities
Multi-drug resistance (TB, and others)	TB is not responding to a multi drug therapy because of HIV and other factors; needs some study
NON-RESEARCHABLE AREAS	
Avian flu surveillance	It is not our public health problem
Development of Management Information Systems	It is already in the process of implementation
ADDITIONAL RESEARCHABLE AREAS	
Integration of different health programs e.g. HIV/AIDS resources	
Institutionalizing, budgeting, and incentive mechanism for research	
Updating BOD (burden of disease), HP (hypertension), with primary data at country level	
Newly emerging diseases due to epidemiological transition (DM, Ca, Micronutrients)	

In discussions the following points were made:

- Participants included HIV Aids under reproductive health
- Traditional medicine was seen as an important component of health services in the country with the majority of the population using traditional medicines. However it was felt that there needed to be research to validate the effectiveness of the medicine and to

capture knowledge of the traditional healers. There was concern expressed that patenting such treatments would

Agriculture

Of the statements presented to them, group members approved 14 of them as high priority researchable areas, while two of them were considered low priority research areas. None were considered non-researchable. An additional four researchable issues were also identified by the group.

HIGH PRIORITY RESEARCHABLE ISSUES	
Post harvest technologies	Agro-processing (both crops and livestock products) needs research
Information technology	Helps to enhance communication of available technologies
How to improve human consumption patterns	We have very limited habits of feeding, need to diversify foods and utilize energy parts of crops
Agricultural inputs (fertilizer) recommendations for different Agro-ecological Zones	Existing recommendations are outdated and we also lack any recommendation for some agro-ecologies
LOW PRIORITY RESEARCHABLE	
How to strengthen linkages between actors (farmers', extension, market, research, others)	A system is already available; however, it requires stimulation or recharging.
ADDITIONAL RESEARCHABLE AREAS	
Credit + Saving	
Organization and capacity building	
Soil and water conservation	
Coordination and complementarity of research activities	
Possibility to improve teff production or commercialization and export approaches	

Session 5: How to improve research into use

Participants were split into 3 working groups in which there was representation across sectors and actor groups. Tasks were allocated to each group as defined in boxes 3, 4 and 5 and responses are given below.

Box 3: TASK 1 - How can demand for research be prioritized in a more effective way

- 1) Apart from farmers, extension staff and policy makers – who else may have ideas about researchable questions: List on cards – one per card
- 2) What mechanisms can be used to identify and characterize demand and develop a research agenda that responds to issues? Give examples where relevant
- 3) If we want to develop an agenda for research issues globally as opposed to nationally
 - a. What additional stakeholders should we engage with
 - b. What different mechanisms should we use
- 4) Respond to the following challenge statement:

Challenge statement: Where donor funds are used to address research issues that are of global relevance, a different set of stakeholders should be consulted in order to prioritise these issues. The result may be that research funded in this way may not directly address National priorities

- 1) Apart from farmers, extension staff and policy makers, who else may have ideas about researchable questions

Participants discussed the different groups that might contribute and some of the existing structures that could be used to develop research priorities

- Local administration and councils of people at different levels (PA, district, and zone) raise and discuss problems related to health, education, infrastructure, and agriculture and seek solutions using different mechanisms. At the same time they record every thing and document it for future reference. It would be possible to refer such records to see what problems are raised frequently and which of them are given high priority over time. Such selected problems could be the most important researchable problems.
 - Other civil society organizations like women and youth associations and small micro-finance groups can also provide the felt needs of their members.
 - Religious organizations working on development interventions can also be used as potential sources of researchable problems since they closely work with the community and can easily understand the major problems in their area.
 - Sectoral offices at woreda and zonal level can also indicate researchable priority issues in their area of operation.
 - International organizations
 - Universities and training institutions
 - Agricultural professionals
 - Input suppliers
 - NGOs working in the areas
 - Traders
- 2) What mechanisms can be used to identify and characterize demand and develop a research agenda that responds to issues?

One of the mechanisms suggested by the group was to use experiences of the Ethiopian Institute of Agricultural Research (EIAR) with some modifications. EIAR being with the Ministry of Agriculture and Rural Development have been using a research-extension-farmer advisory

council (REAC) to access the views of stakeholders about the problems that need to be addressed and feed back on the disseminated technologies. This system uses some of the stakeholders mentioned above.

Although this council is not complete in terms of members and has a problem of accountability, it was felt that the REAC experience could be used as a foundation. The new REAC could be composed of the above mentioned stake holders so that it will deal with all sectors and all problems that qualify to be researchable. The forum should be organized with clearly stated mandates, duties and responsibilities. The council should be accountable for its mandated activities and its meeting should be more frequent than the existing REAC. This can be organized at district and zonal level and linked with respective ministries. Effective monitoring mechanisms should also be designed to enforce the issue of accountability.

Concerns were expressed that much of the research is donor-driven; particularly in the areas of health and that this does not always focus on national priorities since the donor agenda tended to address global problems. However, even where there are global issues local inputs to characterizing the issue and refining the research questions should be taken into account.

The representative of RIPPLE used their stakeholder fora and system of establishing Learning and Practice Alliances at different levels (from community to National) as a good example of engaging with stakeholders and identifying priorities, needs for information and feedback on the evidence being produced and used.

- 3) If we want to develop an agenda for research issues globally as opposed to nationally
 - a. What additional stakeholders should we engage with
 - b. What different mechanisms should we use

Additional stakeholders suggested included WHO, FAO, CABI, International Research Institutions, and other international organizations and donor agencies.

The mechanism to develop global research agenda is to keep the national system (the suggested council) working actively and scan the external environment. We need to keep in contact with our external partners, exchange information, and try to share common problems. The best example raised by the group was the case of avian flu virus and of wheat stem rust (both problems with a global dimension) in which scientists identified problems in their country and shared them with other countries.

The best mechanism to develop global research agenda is to establish with various research and funding institutions globally and exchange information on a regular basis.

Challenge statement

The group agreed that the direct relevance of research results doesn't matter with global problems that may have indirect effects on individual countries.

Box 4: TASK 2 - How can we communicate more effectively

Communication is key to learning and improvement of the way we communicate likely to improve the potential of research impact.

- What are the constraints to effective communication and how can we improve it. Before during and after generation of research outputs
- What are factors prevent effective access and use of research
- What would help to overcome the largest of those constraints
- When we think of communication:
 - 1) Who do we need to communicate to (which stakeholder groups)
 - 2) Why do we need to communicate with them
 - 3) When do we need to communicate with them
 - 4) What mechanisms should we use to communicate with the different stakeholder groups and for what purposes

Prepare your responses on a series of flip charts with one sheet **per stakeholder group**

- 5) How can we make sure researchers and others use these communication mechanisms to ensure research has the impact we expect of it?

Challenge statement: There are no linkages between those that generate and those that use the research which leads to research not being used

- 1) What are the constraints to effective communication and how can we improve it. Before during and after generation of research output

Demand

- There is a lack of empowerment of beneficiaries to ask 'why' questions during the process of research from problem identification to delivery of results. Some felt this was a result of lack of education and knowledge. At the same time it is important to clearly identify demand from the outset. Action research is one way to ensure researchers connect more effectively with beneficiaries
- Two way communication is necessary – not just dissemination to beneficiaries or users of research outputs.

Channel

- Media channels were not well used because of poor literary capacity to prepare different print media in appropriate formats which resulted in material that was not credible.
- Credibility of both the source of information and of the channel used
- Poor accessibility for a number of reasons including lack of education and illiteracy and media not taking account of the number of different languages, and cultural differences as well as physical access.

Source / Supply

- At an organizational level there are no effective communication guidelines or strategies to suggest how and when to communicate research outputs. In addition there are often no

trained personnel. To address this each institute should develop a communication strategy and allocate resources for communications research and apply for new funds

- Ownership of the research in terms of whether it is driven by donors or countries can affect communication of results once outputs are generated. Where research is client driven, often communication is only with the client even if it is generated across sectors within the same organization.
- There is a lack of resources to fund communication. Often the status of communications within an organization is low and as a result these are often the first areas where budgets are cut when there is pressure on funds.
- Both funding and training is required as incentives for researchers to communicate effectively

Impact and effectiveness

- New tools to show impact and communicate results are required to address the constraint of lack of evaluation tools to assess the effectiveness and impact of different communication approaches.

2) What are factors prevent effective access and use of research

- Lack of capacity
- Lack of coordination across different organisations that generate research resulting in no over-view of what is happening at a national level
- Lack of awareness of what else has been done in a particular area of research
- Because the research is donor or client drive and doesn't consult beneficiaries the resulting research is not useful

3) What would help to overcome the largest of those constraints

- Research needs to be more participatory right from the planning stages
- Establishing effective coordination to ensure complementarity of studies and cut out duplication of effort
- All research should include a communication strategy which is participatory and involves communication between researchers and stakeholders from design to implementation level
- Funds need to specifically allocated for communication. Choices need to be made on how to allocate funds within projects, or there needs to be advocacy initiatives to influence those funding research to spend more on communication.
- Planning processes at the start of projects should allocate funds for communication

4) Who do we need to communicate to – why, when and what mechanisms should we use?

Participants talked of all stakeholders being involved at all stages – though it was agreed that strategic decisions about who to involve when should be made on a project basis. Particular stakeholder groups mentioned included end-users or beneficiaries (farmers and other citizens), researchers, policy makers, media and opinion leaders (teachers, priests etc.) that would influence others and promoters/intermediaries.

	Why	When	How (what mechanisms)
Beneficiaries (focusing on downstream beneficiaries)	These are the people that will put use knowledge and can be included in providing feedback and in identifying research area	Through-out	E.g. Using existing School Net – where plasma TVs are placed in schools across the country and could be used by others Drama played on equipment to small groups with an evaluator to capture responses In Ripple, a DFID project, stakeholder input is managed through regular meetings of multi-stakeholder groups Face to face meetings, media and targeted publications were also proposed
Researchers	To avoid duplication and ensure build on existing knowledge	On-going process	Establishment of professional networks to share information Workshops, seminars etc.
Policy makers	Identification of policy opportunities and use of end results for better policy making Allocation of resources	At the start and end	Face to face interactions as well as material targeted for them such as policy briefs
Media	They are able to communicate with the mass		Press releases; Press conference; reports and briefing papers
Opinion leaders	Influence thinking of others		Face to face meetings to ensure they understand objectives and outputs of research and allocate roles during research

5) How can we make sure researchers and others use these communication mechanisms to ensure research has the impact we expect of it?

A monitoring and evaluation system needs to be put in place which might include field visits, focus group discussions and individual interviews.

Challenge statement: There are no linkages between those that generate and those that use the research which leads to research not being used

- It is not reasonable to generalize by saying there are NO linkages. However, there are reasons that lead to research not being used which may include poor communication, sometimes for political reasons. Poor planning and other factors also contribute to poor use of research

Box 5: TASK 3 - Capacity building

How can we build the capacity of different stakeholders to implement research in new ways and in new partnerships to improve research processes so that research is used and contributes to a positive impact? What capacities need to be built and how:

- 1) Who are the key stakeholders involved in effective research into use?
- 2) How do they need to change (capacity built) for research to be implemented more effectively
- 3) How can they be supported to change (capacity built)
 - a. At an individual level
 - b. At an organizational level

Please put answers on a flip-chart using the following chart

Stakeholder	Capacity	Mechanisms to support capacity building

- 4) How can science and technology policy influence research processes

Challenge statement: Research is not used effectively because of weak linkages between researchers, users, intermediaries and other stakeholders that need to change for research outputs to be used

Stakeholders	Capacity building	Mechanisms to support capacity building
<p><i>Users/beneficiaries</i></p> <ul style="list-style-type: none"> ▪ community ▪ policy makers and different sectors <p><i>Researchers</i></p> <ul style="list-style-type: none"> ▪ individuals ▪ organization (university, research centers) <p><i>Intermediaries</i></p> <ul style="list-style-type: none"> ▪ extension agents ▪ mass media <p><i>Donors/funders</i></p> <ul style="list-style-type: none"> ▪ Government ▪ NGOs ▪ Private donors 	<p>A. Enhancing participation of all stakeholders in the research process</p> <p>B. Training on:</p> <ul style="list-style-type: none"> ▪ Conducting demand-driven research ▪ Knowledge of doing research ▪ Knowledge sharing ▪ Skills in utilizing different software for analysis <p>C. Access to communication technologies, facilities (materials) and human resources</p>	<p><i>Individual</i></p> <ul style="list-style-type: none"> ▪ Training (knowledge and skill) ▪ Experience sharing ▪ Recognition of excellence and motivation ▪ Awareness creation and demonstration of research findings <p><i>Organization</i></p> <ul style="list-style-type: none"> ▪ Equipping the organization (material, lab, transportation) ▪ Networking between and within the organizations ▪ Development of skill of consultative meeting in the research process ▪ Identification and dissemination of research findings ▪ Establishment of participatory M & E mechanism

How can science and technology policy guide the research process?

- It can guide the scope of the research (for instance, it may dictate it to focus on basic and applied research)
- Determines level of technology to be used.
- Determines structures of research institutes.

In discussion of the challenge statement, most agreed that weak linkages were one cause of research failing to achieve impact. Participants talked about strengthening both internal systems as well as how they communicated and worked with each other. Internal systems were defined as the ways institutes were organized and managed including rules and incentive structures.

Session 6: Education and research

A Challenge Statement (see Box 6) was projected onto the wall and participants asked to consider the statement and decide whether they Strongly agreed / Agreed / Neither agreed nor disagreed / Disagreed / Strongly disagreed. They were then asked to stand next to cards representing each of these positions posted at the end of the room. Once people were standing next to the cards a discussion was facilitated about the statement which is summarized below.

Box 6: Challenge Statement on the role of research in the education sector

Research into education is not required. What is needed is to increase the coverage of education and improve curricula using existing methods and approaches.

There was quite strong consensus on the challenge statement with the only person agreeing being the DFID representative who to some extent was playing devils advocate. The rest either disagreed (15) or strongly disagreed (6).

Agree: The DFID representative played devils advocate and suggested that already much is known about education and if when it came to decisions about budgeting it would be better to invest more in implementing what is already known and to expand the reach to vulnerable groups rather than investing in further research. In response to this some felt that research was required to guide such expansion.

Strongly disagree / disagree: In society the only constant thing is change and all the time there is change research will be needed. Education is the basis for all development and to remain constant would be to remain stagnant. Approaches to increase the coverage and reach of education as well as improvement of curricula and quality of education should be based on research. Even after improvements are made there is a need to assess how and why further improvements can be made. Effectiveness of education should be measured in terms of its impact on the individual receiving it. Ongoing impact assessment is required to ensure it is valued.

It was felt that in Ethiopia educational standards, including the quality of teaching have declined over the past 30 years particularly in public education. Although in the last 10 years the government has focused on constructing schools so that now there is at least one in every

kebele (smallest administrative unit of approx 500 households) quality remains questionable. As well as the skills of teaching staff, declining quality of education was felt to reflect poor textbooks, equipment and infrastructure. Opinions differed with some mentioning a need for research at all levels including kindergarten, but there was a feeling that special attention need to be paid to tertiary level education. Another strong view was that first the quality of training of the teachers needs to be addressed before looking at training per se. Also, that methods and curricula needed to reflect market demand for skills.

Frequent changes of curricula was considered as an indicator that further research is needed. An example was given of the TVET programme (Technical and Vocational Education and Training) that was an approach developed in Germany (where it works well) and brought to Ethiopia. The objective of TVET was to provide vocational training at diploma level to students that did not have the capacity to pursue more academic courses at University level. However, it is now being seen as an alternative route to University rather than focusing on building skills for the work-place. Research is needed to develop approaches within the system that will ensure the curricula create graduates with the skills required to address the problems the country is facing.

Increased involvement of girls in education was a key issue. Although there in recent years there has been encouragement to send girls to school there needs to be greater understanding of the obstacles to their participation and how to ensure sustainability. In Universities half of those joining University are women – but not enough thought is given in how to build capacity in a sustainable manner and targets for women graduating are often not reached.

One person said that currently in Africa education in all areas is very top-down ‘depositing’ information into students and not teaching them how to learn, how to think or how to go about problem solving. Research was needed to develop approaches for experiential learning in different areas of education such as the methods used in Farmer Field Schools. Another mentioned that research should focus on adaptation and adoption of proven methodologies used elsewhere in developed countries but modified to fit the Ethiopian context.

Wrap-up

The facilitators emphasized that they as well as DFID very much appreciated the time participants had taken from their busy schedules to attend the meeting. Workshop minutes as well as the country papers being produced using inputs from the workshop together with the key informant interviews and focus group discussions would be circulated to the participants when ready. After further thanks, Megan Lloyd-Laney explained, on behalf of DFID that the input from the country consultations (in Africa and Asia) would be considered together with inputs from other parts of the consultation as the team developed the new strategy. A draft of the strategy is expected to be sent to the Minister for approval by the end of the year, with any adjustments or refinements taking place during January to March. The new strategy will be implemented from the April 1st. Megan also indicated where details of the current strategy could be found on the web and where outputs from the consultations were being posted.

Appendix 1: List of organisations attending the meeting

Sector	Actor group	Institution (and location)	Designation
Agriculture	Civil Servant	Ministry of Agriculture and Rural Development	Departmental head of Coffee, Tea and Spices Development
Agriculture	Donor	Ministry of Water Resources /DFID	Advisor
Agriculture	Intermediary	Federal Cooperative Agency	Expert
Agriculture	Politician	House of people's representatives: Member of Rural Development Standing Committee	Committee member
Agriculture	Private	Ethiopian horticulture Producers.& exporters association (ETHPEA)	Chief Technical Advisor
Agriculture	Researcher	International Food Policy Research Institute	Research Fellow
Agriculture	Researcher	Ethiopian Institute of Agricultural Research	Gender expert
Climate Change	Civil Servant	Institute of Biodiversity and Conservation	Deputy Director General
Climate Change	Civil Servant	Oromia Environmental Protection Authority	Department head
Climate change	Politician	House of people's representatives: Natural Resources and Environment Standing Committee	Committee member
Climate change	Researcher	EIAR/Melkassa Agricultural Research Cente (MARC)	Agrometeorologist
Governance	Civil Servant	MCB (Ministry of Capacity Building)	Expert
Governance	Civil Servant	Ministry of Finance and Economic Development (MOFED)	Expert
Governance	Civil Servant	Federal High court	Judge
Governance	Civil Servant	Anti-corruption Committee	Department Director
Governance	NGO	Poverty Action Network Ethiopia, PANE	Community Development
Governance	NGO	Addis Ababa Chamber of Commerce and Sector Association (CCSA)	Research & Advocacy Division head
Governance	Politician	House of people's representative: Legal and Administrative Standing Committee	Committee member
Governance	Politician	House of people's representatives: Social Standing Committee	member of social standing committee
Health	Civil Servant	Federal HIV Aids Prevention and Control Office (HAPCO)	Senior MXE officer
Health	Civil Servant	Federal Ministry of health	
Health	Civil Servant	Bureau of Health Southern Nations and Nationalities Peoples Regional State (SNNPRRS)	Deputy Bureau Head
Health	Civil Servant	Addis Ababa Health Bureau	Senior expert
Health	NGO	Ethiopia Public Health Association (EPHA)	Monitoring and Evaluation, Research and Dissemination officer
Health	Private	MEDCO Private Biomedical college	Vice President
Health	Researcher	Medical faculty - Addis Ababa University	System Administrator.
Other	Intermediary	RIPPLE (Research Inspired Policy and Practice Learning in Ethiopia and the Nile Region)	Media and Communications Officer
Other	Researcher	RIPPLE / ODI	Director /Programme Leader

Appendix 2: Expectations and Fears

Expectations	Fears
<ul style="list-style-type: none"> ▪ Know about DFID's programme and research strategy and the way they inform policy makers. ▪ Research priorities will be properly identified in the four areas that could positively impact livelihood and environment. ▪ Identify research ideas/gaps, and country's research priorities, ▪ Become familiar with vital research issues needed for poverty reduction, ▪ To know the gap of our research development and set the strategy ▪ Share experience, and learn something new, ▪ Learn what people see as important for development and how they think research can help, ▪ Design methodology of delivering research outputs for implementation and use, ▪ Expect new approaches in prioritizing research for good governance, ▪ A variety of views and opinions will be obtained on how research should be conducted and communicated. ▪ Capacity building for stakeholders, ▪ To get to know institutions engaged in research, ▪ Sound planning will be developed that brings positive change, ▪ Synergy with government development strategy/plan ▪ To improve PASDEP programme through the research process. ▪ Contribute input to the research strategy 	<ul style="list-style-type: none"> ▪ Question of sustainability of relationship, ▪ Ideas from this workshop might be overshadowed on bigger output, ▪ Accessibility of resources, and community participation in priority setting, ▪ Government policy; finance, ▪ The issue of climate change may not be properly captured, ▪ Difficulty in handling diverse views; ▪ Diversity of discipline may limit contribution and shadow real research gaps, ▪ Less input due to limited number of professionals, ▪ Different exposure in the area and gap hinders communication, ▪ Limited time allocated for such a big issue for discussion. ▪ That I will waste my time being here, ▪ That people will not say what they really believe. ▪ Workshop is at ILRI, facilitators are CABI ... Bias towards agriculture.

Appendix 3: List of researchable issues given to participants

Governance

1. Professional ethics (for justice sector actors) – Accountability and ethical obligations in relation to a) corruption and how to ensure ethical accountability and b) to the independence of the justice system
2. Judges feel as if they have absolute rights to do every thing - so need to look at gaps and limitations,
3. Looking into existing policies, proclamations and regulations, identifying gaps/limitations and improvement/amendment.
4. Ways of improving coordination and collaboration among different institutions dealing with similar issues,
5. Look into mechanisms that would help to make speedy trials;
6. Looking into how to create check and balance system among the different government bodies (judiciary, executive and legislative)
7. Research on how to improve quality of education and providing evidence that can convince policy makers and others,
8. Research looking into the justice system such as the capability of judges, their independence and impartiality, etc.
9. It is also important to do research and produce evidences with regard to the roles, problems and constraints of women in different sectors,
10. Establishing/creating women information center
11. Gender issues have not been taken seriously as the duty and responsibility of every body; considered as the responsibility certain group.
12. Issues related to perception, attitude and opinion of top-leaders about gender equality,
13. Issues related to women's confidence, self-esteem and decision-making and acceptance need to be assessed,
14. Women's participation and benefit from the capacity building efforts of the country.
15. Feedback system between the policy makers (the government) and the public. There is a need to study the mechanism to get feed back from the society (at all levels) after certain policies are implemented in order to make necessary adjustment in the policy framework.
16. Impact assessment of the reforms being undertaken in the country
17. Factors affecting (both positive and negative) the participation of the civil society in the process of ensuring good governance
18. Research encouraging the indigenous knowledge system. This means developing the indigenous knowledge in scientific methods.
19. Research should involve practitioners that are facing the day to day challenges in the real working environment.

Health

1. Multi-drug resistance for TB and other diseases,
2. Avian flu surveillance,
3. Assessment and evaluation of effectiveness of current health intervention services such as malaria bed-net and drug, and other health extension services,
4. Developing mechanisms and promoting communication/dissemination of available information/research findings,
5. Impacts of climate change and other environmental factors on trends and incidences of different diseases such as malaria, respiratory diseases, diarrhea, etc.

6. Development of Management Information Systems needs attention,
7. Monitoring and up-scaling pilot tele-medicine,
8. Improving existing systems and services,
9. Validation and evaluation of medicinal plants and associated traditional knowledge and putting into use,
10. Identify traditional knowledge and practices associated with medicinal plants,
11. Linking producers with traditional healers, researchers and industries,
12. Sustainable provision of community development activities like safe water, and sanitation that are directly related to health.
13. Understanding why people are not using the reproductive health services which are in most cases subsidized and are provided for free. Factors influencing attitude of people towards reproductive health services need to be carefully identified.
14. Studying effective ways of disseminating reproductive health education and identification of factors hindering their adoption.

Climate change:

1. Innovation and introduction of new technologies/crops,
2. Adaptation strategies,
3. Investigating consequences of floriculture industry on environment, human health and livelihood.
4. Effective ways of natural resource management and rehabilitation of degraded areas,
5. Assessment of different factories such as tannery chemicals and effluents on environment and use of effluents and city waste management,
6. Impact of climate change (and its extent) on different areas such as agriculture, pastoralists, health, and others,
7. Research into new and alternative sources of energy, developing/promoting indigenous energy sources such as bio-fuel.
8. Investigating the impact of land policy on natural resource management and conservation,
9. Research on carbon marketing,
10. Validating and developing indigenous knowledge and practices
11. New innovations and introduction of new crops/technologies to new areas as a coping strategy.
12. Linking local community with researchers and industries. e.g. medicinal crops.
13. Communication/dissemination of existing knowledge and information and advocacy works,
14. Strengthening networking and creating forum to bring stakeholders together, creating synergy among the different fragmented efforts, encouraging local initiatives, and creating partnership should be given serious attention.
15. Land use planning and management,
16. Generating relevant information and influencing policies especially in relation to investment that negatively affect the environment. Also dialogue and lobby is needed.
17. Research on effective ways of natural resource conservation.
18. Waste recycling and making effective uses of by-products.
19. Inventory and valuation of natural resources,
20. Devising mechanisms to harvest run-off water for useful purposes,
21. Identifying and assessing risk prone areas (such as areas that are prone to flood).
22. Studying change of ground water with climate and the adaptation (coping) mechanisms of the vegetation, rainfall (intensity and distribution), distribution pattern of pathogens
23. Association of climate change with crop production pattern, distribution of organisms, change in productivity, etc.

Agriculture

1. Livestock feed and breed improvement,
2. Developing technologies for commercial and/or industrial high value crops,
3. Communication of available technologies,
4. Research supporting agro-processing,
5. Bio technology,
6. Information technology,
7. Assessing, testing, validating and promoting indigenous knowledge and technologies,
8. Marketing research such as marketing system and value chain analysis,
9. Investigating and developing ways of strengthening farmer, extension, research, market and other actors linkages,
10. Fertilizer recommendation for different agro-ecologies and specific areas,
11. Post harvest technologies,
12. Peasant understanding of problems and involvement in research and development
13. Crop livestock integration especially focusing on optimum combination of crop and livestock enterprise mix which smallholders with limited land, labor and capital can accommodate to get maximum possible benefit from both.
14. Study and identification of crops that the country should focus (that generate better benefit for the nation and improve producers' livelihood).
15. Research on feeding habit of people and possibilities and options of changing it?
16. Developing strong monitoring and evaluation and accountability in the research system.
17. Characterization of farming systems to identify the priority problems of farmers in different agro-ecological zones
18. Research on quality to assure the competitiveness of our commodities in the world market

