COMMUNICATION, ADVOCACY AND DATA AND KNOWLEDGE MANAGEMENT Component Planning

Initial Ideas by Peter Ballantyne, March 2012

CGIAR Research Program on Livestock and Fish

Background

Annex 1 set out what we want to achieve in this (sub)component of the Program – it is a set of outcomes, outputs, milestones I developed September 2011 for the CRP management meeting (I don't think they were discussed). It tries to mimic the information presented for the other components of the Program.

Annex 2 presents the component strategy from the original Program proposal. This sets out some principles, audiences and 5 'intervention areas' associated with the themes and components in the main proposal.

In summary, the five intervention areas and their overall outcomes (as defined so far) are:

- Connecting and powering value chain development. Overall outcome: Communication tools, methodologies and approaches reinforce efforts of key actors within the 9 target value chains to identify and address innovation needs and to access and use appropriate technologies, institutional strategies and knowledge.
- Enabling technology development. Overall outcome: The results/evidence of technology development activities are published as international public goods and adapted/transformed as required for optimal re-use by VCD partners.
- Communicating and learning across the Program. Overall outcome: Partners in the program are supported by and using a range of tailored communication and knowledge sharing tools, approaches and methodologies.
- Communicating for wider impact. Overall outcome: Targeted stakeholders beyond the
 program are aware of its focus, emerging results and insights, and they are encouraged and
 influenced by the evidence presented to take up, as necessary adapt and put the program's
 results into use.
- Dealing with data. Overall outcome: Data collected and produced by the program components
 is properly documented, archived and published to maximize its wide accessibility and re-use by
 others.

Where are we now?

We have some ILRI tools/elements actions. Other centers have also, I think, been preparing this work.

- The program repository at http://cgspace.cgiar.org/handle/10568/3112
- The program web site at http://livestockfish.cgiar.org [soon to become http://livestockfish.cgiar.org]
- A program workspace at: http://livestock-fish.wikispaces.com
- A program calendar at: http://livestock-fish.wikispaces.com/calendar
- The content and navigation of each has been updated and reporting on activities is starting up.
- A referral page on the ILRI website at: http://www.ilri.org/crp3.7
- Inclusion of Program newsfeeds in the new cgiar.org web site to be launched in April/May 2012
- Facilitating and documenting/communicating value chain development projects in Ethiopia and Tanzania (http://livestock-fish.wikispaces.com/events).
- Placing an AYAD-supported volunteer in Hanoi to support the program in Asia, esp. Vietnam
- Branding is getting clearer and should be very clear after the final consortium review.

Outline plan of actions for 2012

Below I have tried to set out the main things we need to do, provide some notes on each, and sketch out some resource/capacity requirements.

In terms of overall priorities, I think we need to focus on: 1) developing an overall strategic framework and workplan/budget, including inventory of needs/capacities 2) program-wide external and internal communication 3) knowledge and communication 'architecture'. Putting in place what's necessary of the Program to operate effectively. Second priority is to support individual projects (some are already supported) and to put in place the systems to support the value chain development processes as they come on stream.

Some principles

- Each center looks after own lead project/value chain. Using agreed approaches/architecture
- Every value chain and project gets an 'assigned' someone to make sure they do comms properly; and are comm'd about
- Program-wide external comms mainly in Nairobi/some Penang. Aim for 1 FTE, if possible from existing people
- Other Program-wide support as needed, mix of skills from different partners
- External consultants for specific assigned roles/tasks
- Share expertise across as much as possible
- Specific areas of intervention usually a ROW below has a lead person assigned to ensure leadership and delivery
- Small group jointly reports to Tom (?) Peter and Fiona?

2012 plans			
Activity	Approach	Who	Costs?
Define overall strategy.	Developed by small team. 2 nd	Ballantyne	3 days of
- Outcomes	Quarter 2012	Chandler	each
- Audiences		Devlin	person
- Pathways	Face to face meeting	Gassner (data)	
- Products		Kemp (data)	+
- Processes		Le Borgne	
- Platforms		Macmillan	Direct
- Indicators		Poole (data)	costs
- Resources		Randolph	
-		Staiger	+
- External comms		+	
- Internal comms		Scientists	venue
 VCD support 		Selected few others?	
- Technology support			
 Data curation and publishing 			
, 3			
Inventory of 'comms' expertise for	Before we start recruiting	_	
Livestock and Fish across the centers			
- Who and what we have	Before the face to face		
- Who and what we miss	meeting?		
Agree workplan for the year	Developed by small team. 2 nd	_	
- Milestones	Quarter 2012		
- Outputs			
- Inputs	Face to face meeting		
- Timelines	_		
- Reporting			
Program-wide EXTERNAL	We already started on some of	Chandler	
COMMUNICATION	this	Macmillan	
 Visual identity and tools – 		Devlin	
guidelines, templates	Need guidelines and principles		
 web communication – news, 		Lore (50%)	
updates, stories, photos	People to do the actual	Katingi (25%)	
 print communication – posters, 	updating etc	New KMIS NBO (25%)	
brochures, templates.		ILRI KMIS	
 Publishing – print, digital 		ILRI PA	
 Events calendar - updating 		WorldFish (X%)	
 Content writing, editing 			
 Design and graphics 			
Program-wide annual learning, planning	4 th quarter of each year	Ballantyne	\$75K
and scaling out event	,	Le Borgne	
5		others	
Program-wide event and process	We need to make sure that	Ballantyne	
-		1	1
FACILITATION and engagement	every event/activity has some	Le Borgne	

- Event facilitation and reporting/documenting - Process support, engagement Program-wide INTERNAL COMMUNICATION - Collaboration tools – wiki, yammer, internal newsletter, whatever - Meeting planning and documenting and reporting - Learning products created - Knowledge repository – management, updating - Events calendar – updating	Facilitation wherever needed ILRI started on some of the platforms	Consultants Own staff for documenting/reporting Ballantyne ILRI KMIS Others?
Program-wide DATA management - Establish archiving and curation standards - Capture products into knowledge repository - Data index and repository - Tools and guidance to maximise sharing and re-use of data generated through the program. - Innovative and useful visualization of data	Need to look at what we are each already doing Icraf and ifpri, eg, ahead of ilri Cg may have data meeting this year (stan wood)	Poole Kemp Others?
Program-wide ARCHITECTURE of Sharing - Workflows to capture and index products in knowledge repository - Platforms for publishing - Platforms for internal communication - Platforms for collaboration - Common open license for outputs (creative commons) - Visual identity guidelines - Training/awareness for participants	Agree the approaches, tools, standards, platforms And make them work	Ballantyne Chandler Devlin Staiger
Each VALUE CHAIN - Basic external information to web site - Regular news/happenings update to website (stories, photos) - Capture products into knowledge repository - Organize annual learning event	Ideally some time IN each country from a partner with extra from Program partners	Xx% local person each chain Xx% assigned to each chain by partners: Nicaragua – ciat Egypt – WF Ethiopia - ??

 Updating and using internal comms tools/platforms 		
Each PROJECT - Basic external information to web site - Regular news/happenings update to website (stories, photos) - Capture products into knowledge repository - Organize annual learning/documenting event - Updating and using internal comms tools/platforms	Do we make a rule that CRP projects MUST abide by some actions?	Time and resources of each individual project Depends
VALUE CHAIN DEVELOPMENT THEME - Analytical framework and approach to knowledge sharing and communication to support value chains, including interventions, capacities needed, indicators. - Rapid feasibility assessment of the use of novel ICT applications (eg mobiles), to reinforce and extend Program outcomes in VCD. - Rollout of innovative/productive information/knowledge/comm unication/learning support approach/platform in each VC	Expert meeting later in 2012 Rest to follow	Ballantyne CTA others
TECHNOLOGY DEVELOPMENT THEME - Translate and adapt Technology development results for VC actors. - Capture products into knowledge repository - Rapid feasibility assessment of the use of novel ICT applications (e.g. crowd- sourcing)	Need writers/adaptors/translators Review/late 2012?	Consultant pool? Exists in the partners? Kemp

Annex 1 – Outcome Logic

Under this (sub) component, the program works in five intervention areas. The first two directly support the two main themes of the program; the others help achieve the program's wider internal and external communication and learning intentions and its commitment to making knowledge and data widely available and accessible in perpetuity.

Outcomes	Outputs	Milestones
0.1. Knowledge of the Program is put to use and influences the actions of target actors and	Communication strategy. Knowledge, communication and	1. Develop communication strategy for the Program.
stakeholders.	learning 'products'.	2. Provide communication support to Program components and actors.
0.2. The Program draws on the knowledge and expertise of all its partners to identify R4D solutions.	3. Facilitated learning, engagement, and communication processes, tools, and approaches for Program actors and stakeholders.	3. Set up workflows and systems to organize, channel and archive the information and knowledge generated through Program activities.

Areas of intervention

1. Connecting and powering value chain development

Overall outcome: Communication tools, methodologies and approaches reinforce efforts of key actors within the 9 target value chains to identify and address innovation needs and to access and use appropriate technologies, institutional strategies and knowledge.

Outcomes	Outputs	Milestones
1.1 Value chain development	1. Analytical framework and	1. For each VC, develop a
processes benefit from targeted	approached to knowledge sharing	communication strategy identifying
investments in knowledge,	and communication to support	value chain development
communication, and engagement	value chains, including	stakeholders and their interests,
tools and processes.	interventions, capacities needed,	communication outcomes, and
	indicators.	appropriate information,
1.2. The knowledge and key		communication, and influence
expertise of key VC actors are	2. Relevant, targeted knowledge,	pathways.
actively incorporated in Program	learning and communication	
activities.	outputs produced, shared and	2. Provide communication support
	archived from each VCD process, for	to VCD actors to document, share
1.3. Communication and	local and in-country use and	and communicate their learning,
knowledge-related capacities of VC	contributing to program-wide and	knowledge and evidence.
actors enhanced.	global priority actions.	

3. Set up workflows and systems to 1.4 Knowledge of the program is 3. Rapid feasibility assessment of organize, channel and archive created, shared, communicated, the use of novel ICT applications (eg information and knowledge archived and put to use. mobiles), to reinforce and extend generated through VCD. Program outcomes in VCD. 4. Expose, train and support key 4.Set of communication and actors in each value chain to knowledge sharing approaches, implement communication and tools, platforms and methodologies knowledge sharing approaches and designed with actors and methodologies. stakeholder for each value chain; 5. Identify and recruit in-country 5. Value chain process design, communication and knowledge meetings and facilitation designed sharing partners to support VCD. to maximize documentation, sharing, learning and 6. Hold regular/annual 'learning and communication. communication' forum/platform activities around each VC to capitalize on experiences and evidence generated.

2. Enabling technology development

Overall outcome: The results/evidence of technology development activities are published as international public goods and adapted/transformed as required for optimal re-use by VCD partners.

Outcomes	Outputs	Milestones
2.1. Technology development results are 'translated' and communicated for maximum uptake by priority actors in the 9 value chains. 2.2. Technology development results are published globally as	Technology development results tailored for VC actors. Technology development results published through international channels and archived in program repository.	1. Develop communication strategy identifying technology development stakeholders and their interests, communication outcomes, and appropriate information, communication, and influence pathways.
international public goods that can be taken up elsewhere, including in other VCs and in other countries. 2.3 Knowledge of the program is	3. Appropriate information, communication and knowledge sharing platforms and mechanisms established to ensure uptake of technology development results.	2. Communication support provided to program components to translate and communicate the evidence they generate.
created, shared, communicated, archived and put to use.	4. Rapid feasibility assessment of the use of novel ICT applications (e.g. crowd-sourcing), to reinforce and extend program outcomes in technology development.	3. Set up workflows and systems to organize, channel and archive the information and knowledge generated trough technology development activities.

3. Communicating and learning across the Program

Overall outcome: Partners in the program are supported by and using a range of tailored communication and knowledge sharing tools, approaches and methodologies.

Outcomes	Outputs	Milestones
learning effectively supports delivery of all aspects of the program. 3.2. The Program effectively taps into the expertise of its partners.	1. Learning products produced about the approaches and processes used in the program. 2. Set of processes, tools and events used to facilitate learning, engagement and interaction among program partners.	1. Develop communication strategy identifying internal communication and learning stakeholders and their interests, communication and learning outcomes, and appropriate information, communication, and learning pathways. 2. Set up and facilitate workflows, systems and tools to support internal communication and knowledge sharing, across the whole program and for specific components. 3. Set up and facilitate documentation and learning processes for the various components.

4. Communicating for wider impact

Overall outcome: Targeted stakeholders beyond the program are aware of its focus, emerging results and insights, and they are encouraged and influenced by the evidence presented to take up, as necessary adapt and put the program's results into use.

Outcomes	Outputs	Milestones
4.1. Targeted external stakeholders	1. Communication products and	
regularly informed of program	services to inform, influence, and	Develop communication strategy
activities and results to influence	share evidence.	identifying stakeholders and their
their attitudes, change behaviors or		interests, communication
to take specific actions.	2. Engagement and interaction	outcomes, and appropriate
	activities and processes that support	information, communication, and
4.2. Targeted external stakeholders	multi-directional communication.	influence pathways.
regularly engaged with to influence		
their attitudes, change behaviors or		2. Communication support provided
to take specific actions.		to Program components to collate
		and present evidence for different
4.3 Knowledge of the program is		audiences and stakeholders.

created, shared, communicated, archived and put to use.	3. Set up workflows and systems to
	organise and channel information and knowledge for different target groups.
	4. Engage with partners and in events and processes where the program interacts with key external stakeholders.

5. Dealing with data

Overall outcome: Data collected and produced by the program components is properly documented, archived and published to maximize its wide accessibility and re-use by others.

Outcomes	Outputs	Milestones
5.1. Data collected is documented, presented and visualized, published and made openly accessible.5.2 Knowledge of the program is created, shared, communicated, archived and put to use.	Data index and repository. Tools and guidance to maximise sharing and re-use of data generated through the program.	 Develop data curation strategy that sets standards for collection, documentation, and accessibility. Set up and facilitate workflows, systems, processes to support data collection, description and sharing.

Annex 2 – Component strategy

This section sets out some 'principles' that will guide our investments in this area, briefly describes the expected 'actors and clients' for this component of the Program, and identifies four 'areas of intervention' and associated results where we will focus our efforts.

Knowledge, information and data – and the social and physical infrastructures that carry them - are widely recognized as key building blocks for more sustainable agriculture, effective agricultural science and productive partnerships among the global research community (Ballantyne et al 2009).

Through investments in e-Science infrastructure and collaboration, and rapid developments in digital devices and connectivity in rural areas, the ways that scientists, academics and development workers create, share and apply agricultural knowledge is being transformed through the use of information and communication technologies (ICTs).

These ICTs are being applied to all parts of the research for development continuum that connects agricultural science with agricultural and rural change: 'e-Science' (or e-Research) is characterized by global collaboration and the next generation of infrastructure that will enable it while 'm-Agriculture' uses mobile digital devices, such as phones, laptops and sensors, that puts ICTs, connectivity and applications into the hands of rural communities. Between these, ICTs are transforming agricultural extension, facilitating the delivery of education and learning through distance education, helping to empower the rural poor in developing countries, and powering a wide array of agricultural finance, credit, market, weather and other services delivered by public and private organizations.

The integration of data management, knowledge management, information sharing, communications and advocacy across the Program is thus an essential way to achieve the necessary synergies and collective action that will be required for the Program to have impact.

The CGIAR Centers can do much in this area, but certainly not all. Particularly in the seven focus countries, a lot of 'ground-truthing' is required to match the general approach to local situations. To take on all the roles and tasks we envisage, we will need to draw on the skills and capacities of local and national partners as well as those of specialized partners. We will therefore include an assessment of capacities and opportunities in this area as part of the proposed 'participatory partnership analysis' processes that will take place in each of the seven focus countries.

Principles

In the design of different interventions, we are guided by the following principles:

• Knowledge generated by the Program will be open and public. We will encourage all partners to document and share their work from the outset using open platforms and systems with the minimum of technical, financial and legal restrictions. This knowledge will be accessible to all as an international public good, so it can 'travel' and be put to use locally and globally.

- We value the knowledge of our clients and partners. The idea that everyone has useful knowledge to offer underpins the notion of innovation systems and the 'social' web. We will explicitly encourage different actors to contribute their different forms of knowledge to the program, avoiding too much 'push' from the centre.
- Multi-purpose knowledge. Recognizing that different actors and clients in and beyond the
 Program have different knowledge needs and interests and that they respond differently to
 messages in different formats, we will 're-purpose,' re-format, adapt and translate different
 outputs and messages for different audiences and purposes.
- Knowledge management: Collect, connect, converse. We will ensure that the knowledge of the
 program is 'collected' and disseminated for re-use and posterity. We will ensure that the actors
 and partners in the program are 'connected' to one another and to sources of data and
 knowledge. We will catalyze 'conversations,' dialogue and interactions among stakeholders,
 mobilizing and listening to diverse perspectives.
- Face-to-face communication. We will use all suitable ways to generate and exchange information and knowledge, paying particular attention to effective face-to-face events that also reinforce the social and human relationships that are essential for good development.
- Advocacy is everyone's responsibility. We recognize that different partners in the program have
 different strengths. Researchers are usually good at generating evidence; development partners
 are often better in providing avenues into policy and change processes. We will combine the
 strengths of both groups to advocate collectively for pro-poor change.
- Communication inextricably linked to outcomes. What we communicate, who to, and how will have a strong influence on program outcomes. We will integrate our communication activities into our outcome strategy.
- Internal communication and M&E are part of our communication strategy. We do not see
 communication solely as an 'external' activity towards external audiences. This Program aims to
 align and integrate the efforts of many people spread across four CGIAR Centers, associated
 research partners, seven countries, and within them large multi-stakeholder networks of actors.
 We will maximize learning and communication across the Program as a value addition to other
 dispersed activities.
- Partnerships are the key to impact. We will mobilize the various skills and capabilities of the program's partners to create, share, communicate and put data, information and knowledge to use. These skills do not exist in any one partner so we need to build on and reinforce as necessary the capacities of the whole Program.
- Innovation and ICTs. New information and communication technologies are revolutionizing both the ways we do science and the ways that the private sector, governments, and local communities engage in 'development.' We aim to grasp the opportunities these new tools provide to improve the ways we collect and create data and information; integrate, share and communicate this knowledge into our research and technology development activities; and get it into the hands of people directly working with the poor.

Actors and clients

Everyone engaged in the Program is a potential creators and consumer of data, information, and knowledge. There is also a large audience beyond the Program – locally, nationally and internationally – that will be interested in its results.

Who are the people we will work with, and what are their knowledge needs?

- Researchers within the Program and elsewhere need in-depth knowledge products, data, data sources, as well as methods and tools. We may need to help them produce a wider range of communication products than they are used to.
- Development practitioners and partners public, non-governmental and private need targeted knowledge products, dissemination products, training and capacity building products, decision-support tools, synthesized data and the chance to join events and dialogue. We will need to look carefully at communication between these groups and the researchers there is frequently a cultural/communication gap that needs to be overcome. We also need to find innovative ways to capture and share their knowledge, recognizing that they may not be as used to publishing as are scientists.
- We aim to influence decision-makers, investors and the global support community. They need focused knowledge and advocacy products, awareness products, decision-support tools, and synthesized data. Influencing them requires targeted strategies that combine a range of approaches, as well as timely advice and inputs from people they trust and the media.
- Value chain actors producers, traders, and the like must also be reached. Here, we are likely
 to have greatest impact by working through other partners who are close to them, translating or
 adapting the program's outputs into locally accessible formats. National/local radio, print and
 television media will often be important partners in this. We will also join with organizations
 and initiatives that use more interactive tools that integrate web applications with mobile
 phones for example. These enable value chain actors to interact in real-time and to transact in
 more transparent ways.
- A vital 'internal' community of Program managers and implementers needs access to an
 effective M&E system, information on current program activities and events, shared methods
 and tools, data, training and capacity building products, outcome support tools, communication
 and collaboration spaces, and event planning tools.

Areas of intervention

The program will operate in four different 'spaces' comprising different actors and stakeholders and requiring different knowledge and communication support. These are introduced below.

1. Connecting and powering value chain development

Working through innovation platforms in seven countries, we will catalyze rich interactions and communication among the key actors and partners working on each value chain. We will facilitate

interactions with each other and with the specialized research teams working to overcome the identified technology development constraints. We will assist them to communicate their findings for local, national and global uptake, facilitating their access to relevant information and knowledge, locally and globally.

Much of this communication will be face-to-face, requiring effective facilitation and innovative ways to engage multiple actors and their multiple interests. We expect to generate large amounts of 'raw' data and information that will be captured and organized for re-use. Many non-scientists will be involved in these activities, so we will use different approaches, incentives and tools to ensure that their different types of knowledge are also captured and incorporated in the process.

Particularly in this component, we are likely to generate a wide range of intermediate knowledge products and outputs – and few classic scientific articles, books, and the like.

We will capitalize on the increasingly widespread use of mobile phones and other devices that are now accessible and used in the remotest and poorest communities. We will partner with specialized partners – many from the private sector – that use these tools to apply relevant applications and content right across the value chain. By working with partners to integrate a range of different services and applications with mobile phones, we will enable poor and illiterate producers to better participate in the value chains and participate in local social networks.

In this area, we expect to contribute directly to the value chain development efforts by informing all the actors involved, mobilizing their knowledge and know-how, creating a level 'knowledge space' for them to access and share information, and helping document and communicate the lessons and results for use elsewhere. We see these communication activities performing an essential 'gluing' role that reinforces the operation, cohesion and reach of the innovation platforms.

2. Enabling technology development

We will ensure that each research group that is conducting technology development across countries and value chains on a small number of issues has necessary support and tools to gain access to its specific global knowledge and data 'base', to communicate and share the results of its work with partners working in the targeted value chains, and to inform science and policy audiences globally.

Since the teams will be geographically dispersed, we will ensure that they are able to collaborate and 'do science' virtually across organizational, geographic and time boundaries. The communication products in this area are likely to be more 'traditional' – reports, articles, data and the like. One challenge will be to complement these with more accessible formats and channels for other audiences. Experimenting with emerging social media and alternative ways to do 'e-science' – for instance with the support of mobile phones - will maximize the potential for these products to travel and be taken up elsewhere. We foresee an important 'translation' and brokerage aspect to ensure that 'science' messages from this part of the Program are globally valued and are made accessible to 'local' stakeholders engaged in value chain development and associated activities.

We expect these activities will get research results into the public domain and into the hands of target actors in the seven focus countries and beyond. They will also contribute to the scientific process by supporting collaboration spaces and platforms and providing access to global knowledge and databases.

3. Communicating and learning across the Program

We will establish mechanisms to facilitate and catalyze learning, knowledge sharing and communication among the various elements of the Program. Within the countries, the working groups of partners play a key role in this. We will support 'routine' information sharing and communication in support of the efficient running of the program's components. We will also ensure that knowledge, data, and information is documented, captured, shared, synthesized, and put to good use across the program.

This 'sharing' space will thus produce efficient information flows among the program's actors and partners. It will also capitalize on and reinforce learning across the various levels of the program. As in the other spaces, we will use emerging social and other media to ensure that these tasks are done in as open and accessible ways as possible.

4. Communicating for wider impact

We aim to get our results and messages out beyond the program. We will establish necessary advocacy and communication products and approaches to ensure that these results and messages reach, and influence, national and international audiences. The public awareness end of the spectrum will include use of print, video and radio to deliver information and messages packaged appropriately for a range of stakeholders including farmers, extension workers, policy makers and scientists.

We expect most of the outputs in this area will be synthesized, polished or adapted for non-specialist audiences.

These activities need to be spread across the whole Program, with responsibilities for specific value chain advocacy and public awareness based in countries, but linked to an overall coordinated approach.

Dealing with data

The Program will use a common data platform, collecting and collating data from the diverse systems under study. Data collection will be system specific and embedded within each value chain, but by requiring that it conforms to common standards of format and content, we will allow it to be used by common analysis tools across the program.

Integration, synthesis and communication of research data will be centralized where appropriate. This will allow lessons to be drawn across different value chains. The data management platform will ensure that data is made readily available in as near real-time as possible to researchers across the Program through the provision of web-based tools to extract information from the underlying databases.

All data will be placed in the public domain as early as possible. There will be practical and ethical constraints in some cases; for example we may not allow information to be traced back to an individual farmer and we may not release information that would require national approval, such as evidence of a

notifiable disease. But within these constraints, the overriding principle will be to make data available and to encourage its use and examination by the broad community.

Communication channels and tools

Our communication approaches and tools will be used to: co-create knowledge and information with our partners; inform and influence many audiences (directly or via partner 'infomediaries'); integrate, translate and adapt knowledge for different uses; and reinforce the potential 'network effect' of the program. We will also use these tools to help coordinate and manage the Program. Especially among national partners, we expect these tools to reinforce their communication capacities and provide a legacy of skills and expertise that can be spilled over into other activities.

In general, we will use the following main channels:

- The Internet will be the most critical communication tool that we will use from the exchange of basic email and SMS messages, through collaborative work spaces for teams and sharing learning, online video and blogs, mobile phones and other devices, to targeted dissemination and outreach to audiences worldwide.
- Face-to-face and interpersonal discussions and meetings are critical; we will ensure that they are well-facilitated to foster excellent dialogue and interaction; we will also use social reporting approaches to capture and share the essence of these discussions promptly.
- Traditional mass media like television, radio and newspapers still play an important role in reaching wide audiences – beyond the web – and we will seek out partners and expertise to ensure that our messages reach targeted audiences.
- Traditional science communication and publishing articles, books, posters and papers will be
 a strong element of the overall program, especially the technology development component.
 We aim to better integrate such scientific products with a wide range of other communication
 channels and products that may better influence pro-poor policy and development change.
- We will experiment and innovate with tools like mobile phones as ways to collect and share data, to interact with and reach many people, to get beyond the web, to link spatial information with other applications, and to connect various information and advisory services and applications (such as questions and answers, voice services, expertise networks, market prices and weather) with value chain actors. These applications also offer avenues for program monitoring and quality control systems that involve all stakeholders.

W will also pay particular attention to five tools and approaches that reinforce communication:

- Mobile devices that bridge and integrate local needs and demands with specialized information, advice, and knowledge services. We already have various experiences in this area; we will extend and deepen these with specialized partners.
- Social media that enable many actors to easily create, share and communicate information
 and knowledge to various audiences. Some partners have started using these tools to enhance
 the reach of their research; we need to extend these uses across the entire program.

- Networking and community/network tools that connect the partners and actors in networks
 and communities in support of learning and sharing across the program. To fully engage our
 partners, we will put these in place early, providing easy to use facilities for all partners to
 contribute and be informed.
- Information and data repositories that capture and make accessible the knowledge created and compiled and allow local and global re-use and permanent access to these assets. We will need to re-align and re-purpose some of the resources we already have, looking to integrate better different systems and content with emerging needs. We will also explore how they can be connected and presented to new audiences through, for example, mobile phones or enhanced graphic and mapping applications that enable better visualization of data and information.
- 'Crowd sourcing' a way of approaching data and information creation and maintenance that draws on the contributions of many participants, amateur and expert. Using widely available ICTs (especially phones), these approaches allow us to draw in knowledge from many sources, reinforcing the multi-actor emphasis of the program and our intention to draw on all of their knowledge.

A key element in the successful use of these tools and approaches is that participants adopt 'open' and 'pro-sharing' mindsets and attitudes. We will work towards this from the start, building on the positive lessons we gained developing the Program through an open process of consultation and engagement with multiple stakeholders.