

## Experiencing partnership: experiences, lessons and suggestions from the CGIAR Challenge Program for Water and Food. A report to Working Group 2

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### *Introduction*

The CGIAR Challenge Program on Water and Food (CPWF) is a 15-year initiative that has as its mission statement:

*“To increase the productivity of water for food and livelihoods in a manner that fosters social and ecological resilience”.*

The program, for planning purposes, is divided into three phases, and its first phase (2004-08) is now nearing completion. Proposed Phase 2 changes draw on the CPWF's experiences during its first phase, the recommendations of the CPWF's External Review, as well as guidance from the CGIAR Science Council, and are pertinent to this document.

Under Phase 1, the program focussed on nine river basins across the developing world, and five thematic areas governed its science<sup>2</sup>. Under this approach (and very similar to the CGIAR), the CPWF was in effect theme-driven, inspired by the science it wanted to generate rather than the development it wanted to generate.

The rationale and logic for partnerships under the program were not clearly explained in its proposal. After the program's first call, 15 CGIAR centres, 158 NARES, 31 ARIs, 20 NGOs, 5 international public organisations and private companies participated in 52 approved proposals. So, the greatest partnership density lay at the project level, but partnership was built in all the way up and down its structure. It had an initial 16-member management team, comprising the program coordinator, its program officer, nine basin coordinators (all from NARES) and five theme leaders (all from CG centres). The program was governed by an 18-member consortium steering committee (CSC) comprising five CG centres, six NARES, four ARIs, three NGOs and one international river basin organisation.

It should be noted that a key mandate of the CPWF is to 'change the way that the CGIAR does business'. Initially, it was thought that this would occur through the program's use of competitive grants.

Presently, the program maintains its CSC partnership structure, although it is in the process of identifying a board; the management team has been scaled back to a five-member team. Its activities in basins continue to be coordinated by NARES-based coordinators, but in Phase 2 these activities will be coordinated by competitively selected 'basin leadership teams' (BLTs) comprising (at least) two members. The program is also scaling back on the number of themes – from five themes to (probably) three 'topics'.

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<sup>1</sup> The views and arguments presented in this note are the author's own, and do not necessarily reflect those of the CPWF. Many of the ideas in here are derived from, or have been inspired by, Boru Douthwaite (CIAT).

<sup>2</sup> See [www.waterandfood.org](http://www.waterandfood.org) for greater detail about how the program's first phase presently looks.

These changes, the lessons from which they have emerged, and the developing programmatic orientation will be considered in greater detail below. In the section that follows, I will explain some of the underlying (theoretical) logic of the Phase 2 CPWF. I will then consider the role that partnerships play in this process, how these are managed and, finally, I will summarise the key lessons from the CPWF's first phase.

### *Believing in change*

In this section, I discuss some of the underlying ideas of the CPWF. The reason for doing so is that these define our partnership strategies.

When discussing the 'research-for-development continuum', there are many implicits. The term implies that research can drive development; it implies that the definition of 'research' and 'development' and the relationship between the two is sound. It is also suggestive of a linear approach: research objectives are identified, research is implemented, useful products emerge, and development occurs as a consequence; implied in the approach, in other words, is that significant innovations come from the actions of planned research and development (Biggs, 2007). This is known as the 'pipeline model' of innovation development. The green revolution is often characterised as a classic example of how this process can work. CIMMYT developed seed varieties; key partners (the Indian Government, Rockefeller Foundation etc) helped promote the new seed varieties; we had a fine champion in the form of Norman Baurlog; and poor people up and down the Indian sub-continent willingly adopted the new varieties and benefited as a consequence. The pipeline model conjures up a process wonderful in its simplicity, and because the Green Revolution is so often couched in these terms, this particular narrative has shaped CGIAR thinking on the subject for many years. The System continues to rely on the Green Revolution as the example of how cause becomes effect in the same way that research becomes development.

The intrigue here, however, is that the success of the Green Revolution was not the result of this pipeline rendering of useful research results. There was massive political commitment to increasing food production in India, in order to reduce dependency on food aid imports. There was, therefore, considerable demand for the technology. The availability of the Mexican varieties was nothing short of serendipitous. The Indian government tested these improved wheat varieties for just three years, and took the risky decision (from a disease genetic vulnerability perspective) to import large quantities of Mexican wheat seed. The Indian planning commission (PC) committed very large sums to subsidising inputs, and guaranteeing prices to farmers. Large public sector inputs and procurement agencies were established, as well as the expansion of the Ministries of Agriculture in several states. Two international NGOs, (the Ford Foundation and the Rockefeller Foundation) helped underwrite the exercise, made very large grants and provided key technical assistance in top managerial positions in key universities, research stations and in the All India Wheat Programme. Punjabi farmers (some of the major farmer beneficiaries) were not passive recipients of technology, as characterised in the pipeline model, but were very politically active in promoting high farmer subsidisation. They were, on the whole, richer farmers as this agricultural growth strategy was based on 'betting on the strong' who had land and access to irrigation (they were referred to as 'progressive farmers'). The varieties from the all India research system were not the ones promoted in the research system. The varieties promoted came out of the Mexican national research programme. They came from a country-to-country exchange programme, not from a designated international centre that then passed them down to a national programme. In India, there was a very high degree of interaction between senior bureaucrats, Ford and Rockefeller Foundations

and the PC. Programmes were changed each year as the green revolution unfolded. The whole activity was deeply political and interactive between multiple partners (this rendering of the story comes from Biggs, 2007). In other words, the success of the green revolution arose not because of the availability of a new technology, but through a political process that seized the technology, and robustly promoted it.

Why does this matter? The key reason is that it was not the mere presence of the technology that caused the change, but the presence of demand and a coalition of partnerships that made the difference.

In the CPWF, we believe that the pipeline version of innovation-lead change is improbable. Rudolph Diesel, inventor of the engine named after him, distinguished between two phases in the technological process: an initial conception and carrying out of an idea, which is a happy period of creative mental work in which technological challenges are overcome; and then the introduction of the innovation, which, Diesel said, is a “struggle against stupidity and envy, apathy and evil, secret opposition and open conflict of interests, a horrible period of struggle with man, a martyrdom even if success ensues” (quoted in Douthwaite, 2006: 93).

We believe that innovation is, by nature:

- (a) risky;
- (b) unpredictable in terms of:
  - which particular activity or intervention will work or prove useful;
  - who will benefit;
  - when benefits, if any, will occur;
  - under which particular set of circumstances an innovative approach would be applicable;
  - whether the discovery and application will be as intended or of quite a different nature (Perrin, 2002).

We think that Complex Adaptive Systems (CAS) are a more likely explanation than the pipeline model of how and why societies adopt (and adapt) innovations that can (but sometimes cannot) positively change their livelihoods.

A CAS comprises (Axelrod and Cohen, 1999):

- (a) one or more populations of ‘agents’. An agent is an entity, such as an individual or organization, which has agency, i.e. can make something happen;
- (b) ‘artefacts’, which are things, ideas, technologies, databases, etc and strategies (including norms) that they use.

In a CAS, agents use strategies in their interactions with other agents and with artefacts. Agents will evaluate the subsequent results of these interactions and so choose to copy strategies or artefacts, or recombine or invent new ones. Copying itself is error prone. This evolutionary process of selecting what works, copying, recombining and inventing constantly introduces novelty. Also, over time, the process changes the frequency and variation of types of agents, strategies and artefacts as the populations of agents, strategies and artefacts increases in relation to others.

An important concept in CAS is that of “emergent properties” or “emergent behaviours”. An emergent property is one that results from the net effects of the interactions of agents, strategies and artefacts. It is not a property of any single agent, nor can they easily be predicted or deduced from behaviour of the agents.

The shape of a flock of birds or a school of fish is an emergent property, as is the ability of air to transmit sound.

The CPWF draws on much more of this important body of thinking than that which I have just described. For our purposes, however, it is sufficient to point out the following:

- (a) Notice that the changes being referred to in CAS theory are *behavioral* changes. Hence, simply having HYVs did not induce change; farmers seizing these technologies, planting them and marketing them were the key changes. What this means to us is that innovation is better understood as a social process than as the mere insertion of an innovation into a society. In turn, this means that we have to work with the groups we hope to change if any change is to be seen at all.
- (b) A key component of innovation diffusion is an openness to learn: at least as much is learned from failure than from what does work. Unexpected failure can be a major source of innovation opportunity, and innovation most frequently works in ways different from expected. This is a major problem with the pipeline model, which insists on a direct relationship between cause and effect. Hence, if a program fails to deliver what it set out to, it is a failure, and instead, mediocrity is rewarded (Perrin, 2002; see also Biggs, 2007). It also means that such changes that a program might cause to occur, but which are unplanned, are ignored and disregarded. Seeing 'failure' a part of the innovation process, however, strengthens a programme, makes it more open to change, and equips it better to look out for opportunities.
- (c) Given that innovation is by definition unpredictable, it is not possible to identify meaningful objectives or targets in advance. Evaluation approaches based on assessing the extent to which a program has achieved pre-determined objectives *ipso facto* not open to loop-back learning. This is a classic problem, which erodes trust, closes down openness, and dulls innovation.
- (d) We have to start by 'imagining' the change we hope to achieve. What does the landscape look like now, and what will it look like after we have intervened? The key research component of this 'imagining' are the research products we need in order to effect change. These are called 'plausible promises' in the literature, and they are what we use to entice in partners. We implement the CPWF, at project, basin and programatic levels using impact pathways, which are like route maps leading from the change we seek through to the research we implement to effect the change we desire.
- (e) *But*. Because innovation is so risky, we implement our impact pathways in ways that ensure flexibility, and frequent and regular 'reality checks' to make sure we're not shooting in the dark. The plausibility of our promises must constantly be re-assessed, and we build into our management structure this flexibility, so that the system (either in part or in whole) can be re-jigged to learn from failure, or to respond to opportunity.
- (f) Innovation takes a great deal of time. Although very subtle changes might be observed early on, it is typically impossible to attribute the source of this change. In many developing countries, poor farmers are understandably very cautious (something they are often villified for), and are cautious about taking risks. If one or some of them decide to adopt an innovation, then they usually do not do so wholesale, but perhaps adopt some part of it, or modify it to suit their local circumstances. The innovation, indeed, may not even be adopted, but may inspire a whole other set of changes apparently unrelated. *As a rule of thumb, one should not expect to see innovation make impact for less than 20 years after introduction* (see Perrin, 2002).

- (g) We understand that the existence of many partners with excellent scientific skills does not create the system we need to develop change-inducing innovation; but rather, it is the way these individuals work together over time that matters. No amount of peer-reviewed publications or academic accolade (nice though they are) will necessarily yield the change we are seeking. If they did, we would not be a research for development program, but, rather, a research on water productivity program.
- (h) Finally, the CPWF identifies two types of innovations. The first are 'tangible' innovations, i.e. those that one can touch and feel, and which include farm machinery, irrigation and dam designs, seed varieties etc. The second are managerial innovations, which are those that argue that a particular change can come about if we manage a resource (or set of resources) in the manner prescribed.

These, then, are some of the key lessons that we have learned from the CPWF's first phase in terms of developing innovation and encouraging positive change. In the next section, I will consider what this has meant for the CPWF's partnership structures.

#### *Understanding the 'strategic' partner*

The CPWF understands partnerships as strategic, and sees all its partners as having either research or impact utility. If no such strategic interests exist, partners are not, in fact, 'stakeholders'. The virtue of doing research will, of course, attract some strategic partners, but when it comes to attracting 'impact partners' (see below) this becomes a little more complex. The point becomes one of ensuring that such partners see the strategic merit of partnering with a program such as the CPWF. In turn, this implies being aware of a potential partner's needs, and how CPWF research can help them to address these needs. It is then contingent on the CPWF to 'market' itself to ensure that a potential partner can see the intersection between what s/he needs and what the CPWF is producing. We have learned that focussing in on individuals within organisations, rather than organisations themselves, makes considerable sense. In this way, a CPWF individual can develop a personal bond with the partner.

Diversity is a key merit of partnership. In his excellent book, 'The Wisdom of Crowds', James Surowiecki describes an 18<sup>th</sup> Century scene at a country fair. A competition is underway, and members of the audience are asked to guess the weight of a bull. S/he closest to the weight wins the bull. An observer recorded how the closest guess was off by a kilo. But if all the guesses were taken together and averaged out, they were just a gram off. The point with the story is that a large group of people, of different mind-sets, world views, education, culture etc., can come up with a powerful solution to a problem. Diversity is a profound asset, but one that is little invested in, and is rarely considered in strategic considerations.

Surowiecki argues that diversity is often inhibited by proximity. In social setting, people are swayed by social pressures, fear of judgement, ridicule, and a desire to conform and be liked. Hence, if diversity is to be tapped, it is important to establish an 'aggregation device', a way of gathering together ideas without affecting an individual's independence. Anonymity, of course, springs to mind here, and the internet is a very good place to be anonymous. For Surowiecki, posing questions on the web, through, say, blogs and so on, is a powerful way of attracting the outputs of diversity.

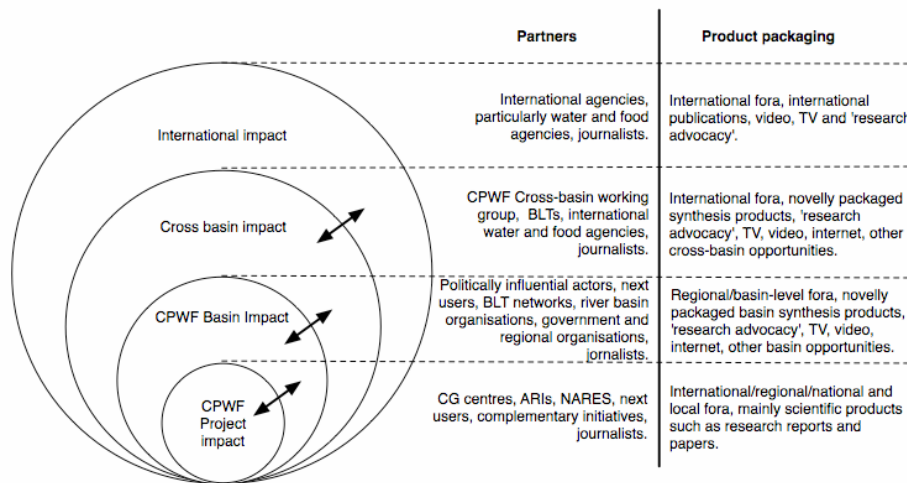
Needless to say, all partners bring diversity, so these are not a ke, strategic consideration. Hence, the CPWF seeks partners that can (a) contribute to the

research it does; and (b) help it to scale up the impact of the research. These two (broad) characteristics form the core of what the CPWF considers strategic in a partner. Few partners display one or the other of these attributes exclusively, and most share some of them. The point is, from the start, to understand which of these attributes has caused us to be interested in a partner, and thereafter to manage the relationship with this goal in mind. Partnerships can incur very high transaction costs (a key lesson from the CPWF's first phase), but these can be justified provided the partner's utility is displayed. In other words, a partnership's utility must be visible.

Hence, based on this utility, the CPWF identifies four key partnership categories:

- (a) Politically influential partners. *Strategic utility: for policy-level and national/regional impact and support.* We include here policy makers and development practitioners. These are the kinds of people that, if they like one of our ideas, will carry it forward and it could, feasibly, be translated into policy and generating far-reaching change. Great tact, occasional obsequiousness, and diplomacy are needed to develop and maintain these relationships, characteristics not common amongst the research community. High-ranking officials usually generate little return – they have fish bigger than the CPWF to fry. Working up relationships with lower officials tends to work better. They are keen for ideas that will enamour them with their superiors. A single, good, mid-ranking official, who has the ear of a minister or permanent secretary, can yield profound change.
- (b) Next users: *Strategic utility: they help us to deliver our research into impact at relatively low scales.* These tend to be NGOs, regional development organisations, and national development agencies. The CPWF is clear that it is not a development agency. But it is an R4D one. It has no development experience, so it makes sense to partner with next users to help deliver an innovation into use. Arguably, politically influential partners are also a part of this group, but the approach needed to develop the latter so differs from 'next users' that we treat them separately.
- (c) Research partners: *Strategic utility: to facilitate on-the-ground research implementation, to bring local expertise to bear and to strengthen and build up capacity in developing countries.* These partners will include NARES and ARIs and CG centres. Management needs to be applied to ensure that we are top-heavy with NARES (part of our overall exit strategy), and ideas about capacity building are built into project design. This group will also include other, non-CPWF research initiatives in our benchmark river basins, with which we might partner to produce greater bang for our buck.
- (d) Journalists: *Strategic utility: to bring our ideas into the public arena in a language that can be understood by a lay public, that will include end users.* The media is a powerful method of introducing ideas into a public arena. The print media is useful up to a certain degree (but note, donors such as DFID consider stories about their initiatives in the local press as a clear indication of impact); TV is increasingly a powerful medium in Africa. One example of a partner we are considering is a Nairobi-based company that produces a weekly soap opera watched by 8 million + viewers. The group introduces agricultural technologies into the soap, and in this way, dramatises the kinds of controversies and social pressures an innovation might go through if it were introduced into the 'real world'. Potential users might then be reassured of the innovation's utility. They gain feed back (and disperse additional information about the technology) via mobile phone texting. Individual ideas such as silage and seed-soaking can be dealt with in a single episode, while more complex issues, such as upstream-downstream conflict, are spread over several episodes.

Below, I represent this graphically, in a diagram that we are considering using in our communications strategy<sup>3</sup>. Notice how the impact is scaled, a key characteristic of the CPWF. Seeing scale as a component of impact has been very useful for the CPWF (research, on the other hand, is much harder to visualise as a scaled activity).



The CPWF sees itself very much as a research for development *program*, and not just a funding mechanism. This implies that the program needs to add value to localised research initiatives, and the main foci for this occurs in providing multi-disciplinary research support, impact support, and support to scale-up research innovations and impact. Hence, we scale our management levels from the project, through the basin and up to the cross-basin level. These management structures are described below, as well as some of the ideas we are considering for how we add value to the partnerships in the research-for-development process.

### Managing partnerships

Below, the current CPWF 'network map' is displayed. The number of (usually formal) relationships an institution has with other institutions determines the size of its circle. Because the CPWF is a water for food program, it is not surprising that IWMI has a large proportion of CPWF projects, and hence, a large number of partnerships. But these kinds of maps also tell us other things. While the diversity is good, the biggest circles tend to be CG centres (with the notable exception of Chiang Mai University (CMU) in Thailand). While we like to see CGIAR centres on the map, we would prefer that they did not dominate it. Progress, however, has been made in including both the representation of NARES in the CPWF, as well as improving their importance in the partnership. In many respects, this dominance speaks of the how important proposal writing is for the field of capacity building. Such maps tells us a lot about our partnerships, and the key tool we need to employ in order to improve the distribution and relative strengths of our partners resides in how we phrase a call, and the conditional mechanisms we insert into proposal submission procedures.

<sup>3</sup> Communications is far, far more than setting up the LAN, which is normally what it is understood as in the CGIAR. Communications is the idea of communicating ideas. In many respects, communications is all that this paper discusses. See <http://www.ilri.org/home.asp?CCID=63&SID=1> for ILRI's very innovative communications strategy, which encapsulates their partnerships logic.



In Phase Two, CPWF basin coordination will be led by Basin Leadership Teams (BLTs), comprising a Science Leader and an Impact Leader. Each basin will have an impact pathway, a key part of which will be to identify expected research outputs. It is the impact leader's task to 'market' these to partners in the different groups described above. S/he will be supported by a communications director (at the program level), who will assist him/her to develop innovative and clever ways of 'packaging' these products. Packaging as a means of communication should not be underestimated. At one level, packaging resides in the design of flyers, reports and other published media in such a way that it attracts people – a 'cool' product at an international conference generates far more 'hits' than a non-cool product. The same is true of websites. Turgid and heavy websites never attract anyone. Clever, interactive, and architecturally attractive websites don't just get hits, but repeat hits. But packaging is broader than this. It implies the means of delivery, and from the CPWF perspective, this relates to ensuring the potential users of our ideas are 'socialised' to them. Because innovation is a social process, then it makes sense to use social ideas in order to get the packaging right.

Packaging, therefore, must respond to the user him/herself. For example, a mid-level member of the 'politically influential network' might need to be flattered and honoured, some small part of the budget set aside to wine and dine him/her (something, we should note, DGs do a lot of); making sure that when they come to workshops, they are recognised; but, at the same time, to ensure that, at such workshops, the language is not too dense and scientific that s/he cannot understand it. Key messages (something scientists are often very bad at) need to be teased out, and meaning revealed.

The same is true of next users. While potentially more technically minded, next users will not respond well to a fat research report being slapped on their desks. Having IPGs available on CG centre websites is equivalent to this – it is not a particularly meaningful way of transmitting innovation and ideas, and undermines innovation as a social process. Under this latter (very pipeline) view, innovation is a technical process.

In Phase 2, we plan to have next users built into our proposals. Proponents will have to identify a next user, and expected to have them on board key meetings where the basin impact pathway is discussed (and, if necessary, adjusted), the development of the innovation debated, and new opportunities discussed. In Phase 1, we ran a series of 'Small Grants' Projects. The initiative was similar to DFID's research-into-use program, but the grants were capped at US\$ 75 K. What these demonstrated were that even with extremely low levels of funding, great research outputs could be brought into use. In fact, the key limitations appear to have less to do with funding, and more to do with time, leadership and trust between innovator and next or end user. A similar amount of funding would be made available to the next user, who then draws on it to participate in project meetings, familiarise him or herself with the innovation, contribute to its development and, finally, to deliver it into impact. We are even considering the possibility that such next users, tagged as they are to projects in which they have a vested (contractual) interest could be the key source of M&E information about the project.

Much of this partnership activity would be managed and coordinated by the BLTs. We're exploring a plan by which BLTs would identify a limited number of partners in each basin, using the criteria outlined above (note: having a few partners is easier to manage than too many; but this doesn't preclude the possibilities of exploiting new opportunities as they arise). Next users and research agencies would then be evaluated alongside a set of guidelines that forces BLTs to think critically about the

partnerships (it is very common for our present basin coordinators to simply select partners because they are willing to partner, and not really thinking about them strategically). If a partner passes the test, they become an accredited CPWF partner institution with a nice brass plaque to announce it (identity and a sense of belonging matters; notice that when you hand out caps with your logo on them, they go like hot cakes). These would, then, be a pool of 'recommended partners' with whom our research proponents could select partners. This potential also constitutes an enticement to draw institutions into our partnership base.

Partnerships at the cross-basin scale are more difficult to manage (in other words, it is more difficult to deliver research into impact at this level, via the partnership medium). Developmental impact measured at the cross-basin scale is both very hard and very unlikely, so here the strategy is rather different (it also begs the question as to why donors so like to focus spending at this scale). Here, it makes sense to aim at trying to influence major organisations that operate at these scales to adopt our ideas and adapt them to their needs. Again, packaging is highly relevant here; and again, many of the techniques are the same – flattery, working up personal relationships, and trying to develop the CPWF as a one-stop shop where people can obtain information, guidance and ideas about improving water productivity.

*Lessons learned: the dos and don'ts of partnerships - a summary of CPWF experience.*

- (a) Innovation is a social process; not a technical one. It *must* be recognised as such.
- (b) The pipeline model of innovation delivery is largely ineffectual, and disrespects our status as a research-for-development program. Understanding innovation as a complex adaptive system makes considerably more sense.
- (c) Feel free to imagine – impact pathways allow us to imagine what it is that we want to achieve, and hence, the partnerships that we need for that purpose.
- (d) The research-for-development process must be *flexible*, to allow us to take advantage of opportunities, and to re-jig our implementation as necessary. The process is better seen as a system, rather than a rigid plan.
- (e) Promising products matter – these are enticing to potential partners. But we must also be flexible in this, and the success of a project has more to do with whether or not it achieved positive impact than it does about delivering some mediocre, impact-less, product.
- (f) Packaging a product in a way that it resonates with a user is essential. Not all types of packaging work for all users. They typically have to be tailor-made.
- (g) A willing partner is not necessarily a good partner.
- (h) Partnerships must be strategic, which implies that we need to understand what we want the partnership for and what a prospective partner might want us for, and exploiting the overlap.
- (i) Less is more – having a few partnerships is easier to manage; this should not, however, detract from exploiting new partnership opportunities as they arise.
- (j) Partnerships enable us to achieve our scaling aspirations (up to a point). Impact is a far easier scaling variable to aim for than 'scaled research'; by defining classes of partner, scaling can be perceived.
- (k) Partnerships encourage diversity, which in and of itself is a strategic quality.
- (l) Once a good partner has been identified, focus the relationship in on an individual.
- (m) Identity and a sense of belonging are vital in creating a good 'community of practice'. Attention needs to be given to how this may be achieved.

*Recommendations*

The above lessons suggest the following recommendations to the CGIAR's Change Working Group on Partnership:

- (a) Understanding innovation as a complex adaptive system makes considerably more sense and should be adopted as a proper method for delivering research into impact, moving away from the pipeline model of innovation delivery which is largely ineffectual, and does not correspond to the CGIAR's status as a research-for-development system
- (b) Partnerships should be strategic, which implies the need to understand what the CGIAR want the partnership for and what a prospective partner might want the CGIAR for, and exploiting the overlap.
- (c) Partnerships are a powerful method for scaling out and scaling up impact, and should be utilised as such. Research is an extremely difficult variable to scale up, and should not be considered as an adequate mechanism for this purpose.