



## The ICT-KM Program Strategy

Imagine if you had access to the collective information resources of the entire CGIAR System. Almost 35 years of vital research and knowledge located virtually in one place. All the CGIAR information you need, the moment you need it. What if you were also given a unique set of tools to support collaborative work with colleagues and partners around the world? And what if all staff were able to connect to the Internet, and each other, at high speeds? The possibilities to share, learn, and build global relationships would be enormous. Working together without boundaries would be the new norm.

If you can imagine all of the above, you will understand a major part of what the ICT-KM Program strategy is trying to achieve. In addition, the Program is actively involved in other far-reaching activities: supporting communities of practice, implementing System-wide IT solutions and nurturing connections, to name just a few.

The Program's strategy is being implemented principally through projects and System-wide activities coordinated by the Chief Information Office. At least two stages, which are described in **Investment Plan** documents, are anticipated in the implementation of the strategy.

# The 2004 Investment Plan: What We Have Achieved

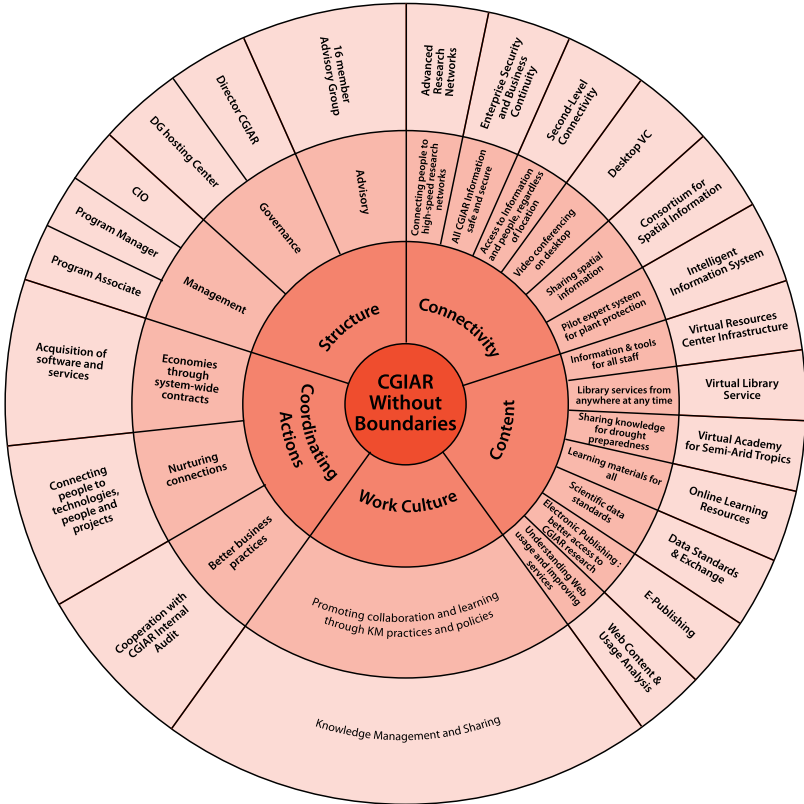


diagram IP 04

The first stage, described in the **2004 Investment Plan** (see diagram IP 04 above), focuses programmatically on strengthening communications infrastructure across the CGIAR System; improving tools for using data and information; nurturing communities of practice; providing platforms for collaborative action and information sharing; initiating steps for integrating information systems; and improving the knowledge sharing culture within the CGIAR. The focus of this first Plan, which is largely internal, directed as it is at the 15 CGIAR Centers, aims to strengthen the necessary infrastructure for System-wide benefits.

Significant progress has been made in those areas that are critical to our mission's success:

- A management structure and strategy are in place, with a diverse portfolio of 14 cohesive projects under way.
- The implementation of System-wide activities (such as an intranet, common library services, common e-publishing services, software and subscription acquisitions) is making good progress. Active Directory, the technical foundation for seamless collaboration among Centers, is now fully implemented.
- The profile and understanding of the role of Knowledge Management/Sharing (KM/S) at multiple levels has been raised in order to stimulate a multiplier effect.
- The level of engagement of the CGIAR in international events (in the area of ICT-KM) has been raised.
- Commitment to learning-based Monitoring & Evaluation (M&E) methodologies has been raised, leading to more informed and timely decision making within the Program and its projects.
- Commitment to the application of common standards and metadata approaches has been raised with the goal of improving access to diverse Content resources.
- Significant financial savings from System-wide purchasing approaches have been achieved.

The critical services, attitudes and processes necessary for achieving "a CGIAR without Boundaries" have now been established. Further details about the work to date can be found in the "ICT-KM Program 2005 Annual Report" and in the internal, learning-focused "The ICT-KM Program Revealed, Annual Report, March 2005".

## A Case for the 2006 Investment Plan

The second stage, along with its accompanying **2006 Investment Plan**, is being developed and is outlined in this concept paper. The Plan proposes work in two areas: providing further support to **consolidate the gains** to date of some of the activities started under the first Plan; and continuing the process of **planning**

for the future. Such plans involve a significant shift of focus beyond the CGIAR Centers' internal infrastructure to improving broader access to scientific data, with a greater emphasis on scientific research. The overall emphasis will be on the CGIAR's main objective: improving agricultural development and reducing poverty through better access to and use of data and information, and greater knowledge sharing in research.

## Consolidating Gains: Building on the 2004 Investment Plan Projects

### Second Phases for Some 2004 Investment Plan Projects

When the 2004 Investment Plan was developed, the need for continuity through second phases for some of the projects was anticipated. These include an umbrella project (*CGXchange*— see below) for many of the **Content** activities; the Virtual Library Services activity; and the Knowledge Management and Sharing Project. See diagram IP 06.

#### *CGXchange*

To manage the various Content components more effectively, seven activities under the Content for Development Project are working together to build *CGXchange*, a CGIAR intranet/extranet system. Once this system is fully established, users will be able to access a formidable array of information resources; create collaborative online workspaces; locate anyone working in the CGIAR, either by name or area of expertise; keep up-to-date with the latest agricultural developments both within and outside the CGIAR System; access training materials; obtain information about CGIAR research projects ... the list goes on.

*CGXchange* will also give users access to all relevant CGIAR learning resources through the *CG On-line Learning Resources* portal. Work related to this portal has also helped establish a growing, virtual CGIAR learning community of practice, showing other CGIAR communities (Center staff and partners) the possibilities that are open to them in their respective areas of expertise.

## 2006 Investment Plan at a Glance



diagram IP 06

Some of *CGXchange*'s features will also be made available to CGIAR partners – redefining the way we work and interact with each other.

*CGXchange* will be officially launched at AGM '05 and is one of the most concrete examples of a service that will provide the benefits “imagined” in the opening paragraph of this document.

The basic computer infrastructure and Content elements are in place, and we now need to consolidate, ensuring that ongoing maintenance and management is provided and that Content providers are able to make their content available on a sustainable basis through *CGXchange*. We envisage *CGXchange* becoming an indispensable tool for most if not all CGIAR staff.

Activities to be included in this project include: web master, support for Content providers, usage tracking, licenses, server maintenance and training.

A notional budget of **USD1.0 million** is proposed over three years.

*Virtual Library Service* ends in June 2006 (duration 18 months, USD308K). This activity has been creating the *CGVlibrary*: it has identified best-of-breed software, arranged hosting, completed initial training and is in the process of integration with the *CGXchange* platform. The *CGVlibrary* will give users easy access to the collective resources held by all the CGIAR libraries and to other leading scientific databases, journals and reference materials.

Following completion of the first phase, support will be needed for system maintenance, refinement of the Application Profile, metadata capacity building, implementation of sustainability plans, and licensing costs.

A notional budget of **USD300K** over three years is proposed.

**Knowledge Management and Sharing (KM/S)** ends in December 2005 (duration 22 months, USD372K). This was the only project in the 2004 Investment Plan aimed solely at work culture issues. Much as been achieved:

Under pilot initiatives supported by the Project, four Centers successfully incorporated KM/S principles and practices into several of their high-profile Center events. In turn, these events have served as entry points for promoting a KM/S culture.

The Project also undertook a series of complementary activities, including facilitation training, a study of human resources policies, and the development of an on-line KM/S toolkit. In addition to achieving concrete outcomes through the pilot initiatives and other activities, the Project has nurtured a core team of KM/S specialists in the CGIAR who possess the skills and motivation necessary to move this work forward.

To build on the interest and tangible gains generated by the Project, the four Centers involved have proposed a new initiative along three main lines of action:

- Extending the lessons learned from the KM/S pilots and other Project activities with the goal of mainstreaming KM/S in other Centers.
- Expanding the new but robust community of KM/S practitioners and champions in the CGIAR to include staff from all Centers, Programs and levels.
- Incorporating KM/S approaches into major CGIAR research partnerships. This is vital if KM/S is to have a profound effect on the way the Centers contribute to learning and innovation through their R&D partnerships.

A notional budget of **USD1.0 million** over three years is proposed.

## Projects Potentially Needing Future Support

Five other projects might require follow-up support, but it is premature to include them in this Investment Plan. See diagram IP 06.

## Projects Not Requiring Further Program Support

Six projects that were supported in the first Investment Plan as “seed” investments are either successfully completed or are proceeding towards their successful conclusion. See diagram IP 06.

## Planning for the Future

### The Case

Access to accurate and timely information is essential in the global effort to fight hunger and poverty in the developing world. To support these efforts, the CGIAR Centers have produced a large amount of data, information and knowledge. Although much of this information exists as public goods held in trust by the CGIAR Centers, it is not well known – largely because it is not organized in a common way. The number and type of databases generated by the various scientific communities has expanded rapidly, but CGIAR partners and global research communities face difficulties accessing these resources.

### The Process

As part of the conceptualization process for the second stage of the ICT-KM Program, the CIO Office organized a detailed and intensive, two-week online consultation in March 2005. This fully-facilitated event involved more than 200 CGIAR staff, NARS partners and external experts. A principal aim of the consultation was to obtain different perspectives, examples and suggestions on how the CGIAR can best maximize the value of its GPGs.

Over the two weeks, the online discussions highlighted several issues concerning how best to respond to the difficulties identified above:

- The need to initiate a systematic effort to allow access across multiple systems to meet the specific needs of any user at any point in time.
- The need for more effective and efficient search facilities.
- The need to know what GPGs actually exist at any given time.

- The importance of identifying the priority users (present and prospective) of these GPGs and their priority needs.
- The need to recognize that the human element will always be present and necessary in order to maximize the value and use of GPGs – to truly tap into “knowledge” through knowledge sharing.
- The importance of acknowledging that significant mutual benefits ensue when partners are involved in the elaboration and implementation of solutions.

The consultations suggested an approach and concept for the CGIAR and its partners to provide their ‘information customers’ worldwide with simple but enhanced access to the vast array of GPGs. This approach would involve:

- Identifying exactly what information exists, the priority users and their needs.
- Organizing information in a common way using, wherever possible, proven standards and approaches.
- Increasing awareness of these information resources.
- Providing simple but effective access gateways to these resources.
- Making CGIAR work available in value-added formats to a much wider audience.

The suggested activities would expand the reach and focus of the ICT-KM Program to include and also go beyond the 15 CGIAR Centers.

## 2006 Investment Plan: The Recommended Approach

Experience to date with the development and implementation of the ICT-KM Strategy and the 2004 Investment Plan points to the need for a measured sequential approach in responding to the complex challenges of moving onto the next stage. We have also learned not to underestimate the complexity of managing and implementing these activities both from the perspective of the CIO Office, and the Project Coordinators and their teams. **Consolidating the gains achieved to date is vital.** The three projects in the 2006 Plan are at the core of the mandate and

vision of the ICT-KM Program and represent a considerable undertaking on their own. We must ensure that core System-wide services are sustained.

Tackling the needs of information GPGs is a large, complex task. Indeed, it is bigger and broader than the ICT-KM Program. The scope of the suggested approaches that came out of the consultations is challenging to say the least. Such approaches would extend to all CGIAR Centers and systems, multiple Programs, a variety of staff (IT Managers, Information Managers, Data Managers, scientists, researchers, the Marketing Group, communication specialists) and all partners. They would also entail challenging and time-consuming work with respect to the adoption and application of standards.

Subsequently, we are **recommending** the development of a coalition of cross-functional CGIAR Programs/Units to take responsibility for the development and implementation of a comprehensive plan to address those needs that were identified through the consultations and deemed to require further refinement (by the same consultations) through a comprehensive “user needs” study. This plan would then be presented at AGM 2006.

Getting better informed through this detailed “user needs” study strikes us as a wise step and a sound investment for improved decision-making in the future. The consultations we have conducted have indicated a path that needs to be pursued if we are to maximize effective use of and access to information GPGs. But we need to ensure that we pursue this objective at the appropriate pace.

As a result of all of these considerations, we recommend the measured, step-by-step pace implied in this paper. Further analysis follows below.

## Consolidating Gains

As indicated in diagram IP 06, **Consolidating Gains** focuses on providing support for follow-on activities for three 2004

Investment Plan projects: **CGXchange, CGLibrary, and Knowledge Management and Sharing (KM/S).**

### 2004 IP Projects Second Phases – USD2.3 million over three years

**Pros:** Reasons for supporting these second phases include:

- They are necessary to ensure Program objectives are achieved.
- All three proposed activities were designed with the need for a second phase in mind.
- All three are relevant to all staff (and partners) making them truly System-wide in scope.
- The investment needed is relatively small compared to the potential returns from a System-wide, sustainable intranet (including comprehensive one-stop access to all CGIAR libraries) and a System where KM/S approaches are increasingly mainstreamed.
- Often, key projects do not receive sufficient continuous support to make a lasting difference – consolidation can bring major, sustained benefits.

Incorporating KS into research partnerships (one of the components of the KM/S Project) would also lay part of the foundation for future efforts that address GPGs needs.

**Cons:** Other 2004 Investment Plan projects may feel that their needs are being ignored.

### Planning for the Future – USD150K over one year

**Planning for the Future** focuses on carrying out a detailed, “**user needs**” study for Information GPGs and the **development of a coalition** to comprehensively tackle information GPGs needs. Projects to meet these needs would then be addressed in a future investment plan coming from the coalition.

### Detailed “User Needs” Study for Information GPGs - USD50K over one year

**Pros:** A comprehensive “user needs” study is necessary to make informed decisions about the Program and its projects.

The community that participated in the consultations strongly recommended such a study and expects the Program to respond accordingly. Partner involvement in the study's implementation would be a great advantage. Such a study would consolidate the results of existing studies and demonstrate that the CGIAR is serious about making good decisions in this area. It would also present an opportunity for collaboration with other significant players in the CGIAR arena who would be interested in the results. In short, the study would result in a large return for a relatively small investment.

**Cons:** Some might argue that they already know the users and their priority needs. Others might feel that studies already carried out are adequate. However, this was not the opinion of the consultation participants.

#### Coalition Development – USD100K over one year

**Pros:** Developing a coalition to tackle GPGs-related projects would ensure the development of a more comprehensive plan with relevant ownership, reflecting the breadth of the players and user needs. A multidisciplinary team would be required to develop and implement multidisciplinary responses to the various needs. Taking this approach would provide more space and time to draw up a plan that would better ensure that the projects to be elaborated are led by appropriate parties. Unless done sequentially (understand the needs, develop the coalition, identify and implement appropriate responses to needs), we run the risk of selecting inappropriate projects.

**Cons:** The community that participated in the consultations could be disappointed with the CGIAR's pace of the response.

## Conclusion

On the basis of the solid progress made to date, this document outlines an opportunity to make a further investment (USD150K in 2006 and USD2.3 million over the next three years) towards the evolution of a CGIAR without boundaries. We are presenting recommendations based on our experience managing both the Program and a consultative process involving many parties. We look forward to your support.