



EGFAR: The Electronic Communication and Information System of the Global Forum on Agricultural Research (GFAR)

Leading institutions :	GFAR & FAO/WAICENT
Beneficiaries :	The ARD community at large
Total cost :	846.000 US \$
Co-financing :	Ministère des Affaires Etrangères (France)
Requested donor contribution :	556.000 US \$
Programme duration :	2 years

LIST OF ACRONYMS

ARD	Agricultural Research for Development
ARI(s)	Advanced Research Institution(s)
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement
CTA	Technical Centre for Agricultural and Rural Cooperation
EGFAR	Electronic Global Forum on Agricultural Research
FAO	Food and Agriculture Organization of the United Nations
FO(s)	Farmers' organization(s)
IARC(s)	International Agricultural Research Centre(s)
ICT	Information and Communication Technology
GFAR	Global Forum on Agricultural Research
MAE	Ministère des Affaires Etrangères, France
NARS	National Agricultural Research System
NGO(s)	Non Governmental Organization(s)
PROLINNOVA	Promoting Local Innovation programme of the NGOs
PS	Private Sector
RAIS	Regional Agricultural Information System
RF/SRF	Regional and sub-Regional Fora
XML	Extended Marked Language
WAICENT	World Agricultural Information Centre, FAO

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1. SUMMARY

The need for a communication platform, at the global level, enhancing the capacity to exchange experiences, information and knowledge among all stakeholders involved in agricultural research for development (ARD) was strongly expressed at the *GFAR-2000 Conference* in Dresden (Germany), and subsequently supported by the *First External Review of GFAR*, recently carried out.

Strengthening partnerships in agricultural research for development in the context of globalisation also raises the need for facilitating discussions on global issues, in order to develop shared visions or build partnerships.

EGFAR is being developed as the electronic communication and information system of the GFAR stakeholders that facilitate the above, relying on Internet-based technology.

The main goal of this project is to assist the ARD community to develop its communication and information platform to improve the effectiveness, efficiency and sustainability of its research programmes, in view of alleviating poverty, increasing food security and conserving natural resources.

The general objectives of the project are to:

- Develop and manage an interactive communication system among the stakeholders of agricultural research for development (ARD).
- Identify information resources relevant to ARD and enhance access to them, through a gateway (portal) function.
- Build knowledge pools through collaborative efforts among stakeholders in a few high priority areas identified by them.

EGFAR is a two-year project. This project proposal presents a detailed plan of action in order to reach these three objectives, taking 50 specific activities that will be carried out through various forms of research and information partnerships among the stakeholders of ARD. This project is based on stakeholder-led initiatives.

By the end of the project, the main expected outputs will be:

- EGFAR is a user friendly, searchable and regularly updated website, which effectively serves as the communication and information platform for the GFAR stakeholders.
- The GFAR stakeholders are capable to participate in discussion fora on topics of local, regional or global interest and in the formulation and implementation of global programmes.

- The FAO/WAICENT resource kit is operational and widely adopted by the GFAR stakeholders.
- A webring across the key stakeholders in ARD is established.
- A "Users' guidelines" of available electronic information resources relevant to ARD is hosted by EGFAR.
- Some consortia are established, either at the national, regional or global level, to negotiate with publishers offering online access to electronic journals or databases.
- GFAR stakeholders are regularly informed of the innovative uses of ICT in the field of ARD and other related fields.
- Knowledge pools are developed for some of the four main research areas of GFAR and a model on the process of knowledge generation through a multi-stakeholder approach is elaborated.

Sets of objectively verifiable indicators for each specific expected output have been developed. Furthermore, a neutral Advisory Committee will be established (EGFAR A. C.) to assist the GFAR Steering Committee in its policy decision-making process in this critical field of ICT. The daily operations will be carried out by the Senior ICT specialist of the GFAR Secretariat under the supervision of the GFAR Executive Secretary. This senior ICT officer will work in close interaction with an EGFAR webmaster to be funded by the Project. The EGFAR Advisory Committee will meet annually but will interact electronically as much as needed. In addition, annual meetings of the managers of the Regional Agricultural Information Systems (RAIS) will also be organised in conjunction with the EGFAR Advisory Committee meetings to facilitate the monitoring of the progress made in the different regions and by the different stakeholders.

This project proposal has been jointly prepared by the GFAR Secretariat and the FAO/WAICENT team, in very close consultation with the various stakeholders that will play a key role in the implementation of the various activities that constitute this project. As pointed out above, EGFAR is a stakeholder-led initiative.

2. BACKGROUND AND JUSTIFICATION

2.1. Background

The Global Forum on Agricultural Research (GFAR) was established in 1996 as a neutral and transparent platform involving all stakeholders of Agricultural Research for Development (ARD).

The seven GFAR categories of stakeholders are:

- The National Agricultural Research Systems (NARS) of developing countries and their Regional and Sub-Regional Fora
- The Advanced Research Institutes and universities (ARIs) from the North,
- The International Agricultural Research Centres (IARCs) of the CGIAR,
- The Non-Governmental Organisations (NGOs),
- The Farmer's Organisations (FOs),
- The Private Sector (PS),
- The donor community.

Through GFAR, these stakeholders expressed their willingness to:

- Share information and communicate in more effective ways.
- Discuss global, and often controversial, issues, acknowledging that possible differences of opinions do not preclude the enormous potential for co-operation.
- Launch and build research partnerships that could lead to the design and implementation of global framework programmes.
- Provide institutional support to the different stakeholders, in particular the developing country NARS and their regional and sub-regional fora.

EGFAR, the Electronic Global Forum on Agricultural Research, is being developed as the electronic information and communication system of the GFAR stakeholders, allowing them to reach their objectives. The recently completed *First GFAR External Review* clearly emphasised the importance and the urgency of addressing the communication and information dimension of GFAR and strongly recommended the strengthening of the GFAR Secretariat to deal specifically with this issue.

The GFAR Secretariat, in close consultation with the different GFAR stakeholders, has developed the concept of EGFAR over the last two years. A website, with already a wealth of information is accessible via Internet (www.egfar.org). This is the product of the pilot phase that was carried out in 1999-2000, with support from IDRC (Canada) and from SDC (Switzerland).

Simultaneously, all regions with the exception of Central Asia and Caucasus have taken ICT initiatives. They are developing their own information and communication strategy, which is

leading to the emergence of Regional Agricultural Information Systems (RAIS), to complement national efforts in these fields.

This situation highlights the need for *EGFAR* to:

- Bring consistency between many initiatives taken at various levels: institutional, national and regional;
- Follow relevant principles to design the architecture of the expected information and communication platform, at the global level;
- Develop strategic alliances with key stakeholders in the ICT field, mainly FAO and the RAIS under construction.

This differential approach by levels, distinguishing mainly local, regional and global levels, is key to the *EGFAR* project. This project, designed at the global level, has to bring value-added to services already available at the regional and national levels. This also means that the topics of discussion shared through the *EGFAR* communication platform must be relevant to the global level.

Building on these efforts, the proposed project aims at further developing the concept of *EGFAR* based on the principles of decentralisation and subsidiarity. *EGFAR* will not take any initiative to develop an information product or a communication service, which could be more effectively developed at a regional or national level. But *EGFAR* can play a stimulating or facilitating role in the perspective of such initiatives.

The World Agricultural Information Centre (WAICENT) established by the Food and Agriculture Organisation of the United Nations (FAO) facilitates the exchange of information within the organisation, its decentralised offices and Member Nations. Through WAICENT, FAO plays a key role in providing relevant information about food and agriculture to millions of people around the world. WAICENT has developed many specialised information systems and has the mandate to improve the existing normative framework to facilitate information flows among the various agricultural stakeholders. More generally, FAO and GFAR goals and objectives are closely inter-related and complementary. This is also why FAO has agreed to host in Rome, within its Department on Sustainable Development, the GFAR Secretariat.

Reflecting the above, the *EGFAR* project has been co-designed with WAICENT, from which in-kind contributions will be received, while *EGFAR* will also contribute to key components of the WAICENT outreach programme.

2.2. The problem

In a world characterised by globalisation, and by an increasingly science-based and knowledge-intensive environment, the access to information, and the capacity for converting information into useful knowledge for different end-users and stakeholders, is becoming of paramount importance. *EGFAR* is one way to tackle this challenge, at a global level. In all RF/SRF meetings, the need to promote the development of Regional Agricultural Information Systems (RAIS) has also been clearly emphasised, as a way of responding to these considerations, and as an important tool for strengthening NARS and for improving the effectiveness of agricultural research. Since its creation, GFAR has played a key facilitating role in the development and strengthening of these RAIS, and in promoting synergies and economies of scale among them. This role will now be continued by *EGFAR*, as a key component of GFAR activities.

Another important consideration that has emerged in all the meetings of the RF is the increasing risk of inequity, between and within countries and stakeholders, because of their different capacity to access and use information and improved communication technologies. On this issue, *EGFAR* will play the role of a virtual resource centre, involved in backstopping activities at both the global and regional levels, in close cooperation with WAICENT. The *EGFAR* project will play a proactive role in strengthening the ICT capacities of NARS and their regional or sub-regional fora.

2.3. The value of the *EGFAR* response and sustainability over time

Two important questions that have been discussed with stakeholders and with partners in this field are those of the value-added that *EGFAR* brings to the information arena, and its sustainability over time. A brief summary follows.

a) Value-added of *EGFAR*

The uniqueness and added value brought by *EGFAR* vis-à-vis other ICT initiatives in agriculture is that the *EGFAR* process is stakeholder-led, and thus it provides the opportunity to the different stakeholders of agricultural research to become truly involved in the formulation of a global agricultural research agenda. *EGFAR* is also an Internet based information system, that uses the web and the new technologies in order to implement the principles of subsidiarity, complementary and decentralisation, which are the key principles of true partnerships. Thus a second very important value-added is that it facilitates the access to the information resources in agricultural research in developing countries, through networking among stakeholders.

Other innovative dimensions bringing significant added value to *EGFAR* are:

- the “Social use” of ICT. This project mobilises and encourages stakeholders from the South to use ICT in the perspective of their institutional strengthening;
- the opportunity to develop “learning networks” and user-driven “knowledge pools” for specific strategic issues relevant to ARD;
- an increased access to grey literature from the South.
- the development of cooperative mechanisms to facilitate access to electronic information resources, such as scientific electronic journals, online databases, etc.

b) Sustainability of *EGFAR*:

EGFAR is a stakeholder-led initiative in which cost-sharing is a basic principle. *EGFAR* is conceived as a system of interrelated WebPages to be managed, as much as possible, in a decentralised mode by the different RAIS and *EGFAR* stakeholders. At the end of the project, the small core budget needed for the *EGFAR* Secretariat to maintain and update the *EGFAR* platform could then be incorporated in the operational costs of the Secretariat. The financial approach of the project assumes that the costs of the Senior ICT specialist will be met through secondment, as recommended by the *EGFAR* First External Review. In addition, FAO has included in its Medium-Term Plan 2002–2007 a regular contribution to *EGFAR* which, considering the WAICENT interest in

pursuing the collaboration with *EGFAR*, may also contribute to secure the small core budget of *EGFAR*.

The independent and transparent governance that will be put in place for *EGFAR* should also contribute to the sustainability of *EGFAR*. The *EGFAR* Advisory Committee will be the relevant place to debate on opportunities and threats, as well as to build shared visions on priorities for action in the field of information and communication. This Advisory Committee will contribute to advise the Steering Committee of *GFAR*, which is the decision-making body.

EGFAR will also contribute to the dissemination and the increasing social use of Information and Communication Technologies (ICT) in developing countries. Given its inter-stakeholder nature, from the point of view of the objectives it pursues *EGFAR* also expects to benefit from the sensitization of the stakeholders towards the importance of information and communication technologies, and from the more efficient use by stakeholders of such technologies.

3. OBJECTIVES AND LOGICALLY RELATED OUTPUTS AND ACTIVITIES

3.1. Objectives of EGFAR

The main goal of the project, at the global level, is to develop a communication platform in Internet that facilitates the exchange of information and knowledge among the stakeholders of agricultural research for development (ARD), in order to improve the effectiveness, efficiency and sustainability of its research programmes, in view of alleviating poverty, increasing food security and conserving natural resources.

EGFAR is defined as a neutral and transparent communication platform led by all the stakeholders involved in ARD, in the perspective of developing a global agricultural research system. This section describes the three general objectives of the EGFAR project, and the more specific objectives that are being pursued within each one.

- a) The first general objective is to develop and then to manage this communication tool. It has to promote interactive exchanges between various actors: NARS, ARIs, IARCs, NGOs, Farmers organisations, private sector and donors community. The challenge is to succeed to build and enhance this horizontal communication system, that may contribute to the flow of information and knowledge among stakeholders. This general objective will be pursued through four more specific objectives.
- In order to achieve this general objective, the first specific objective is to establish a neutral and transparent governance of EGFAR. This governance will be based on an Advisory Committee through which expert advice will be mobilised from the various stakeholders. This Advisory Committee (A.C.) will advise the GFAR Steering Committee on topics related to ICT; policy decisions with respect to the general orientation of EGFAR will be taken by the Steering Committee. This A.C. will involve approximately 5 to 7 persons from the various stakeholders including FAO, who will interact mainly through e-mail and through discussions lists, involving also the RAIS managers. An annual meeting will be held parallel to a meeting of the GFAR Steering Committee.
 - The second specific objective is to build the communication platform between all the GFAR stakeholders. This will imply specific technical developments in order to allow dialogue on global issues between the various stakeholders. These dialogues will also contribute to exchanges of information and to the launching and building of research partnerships, contributing to the expected global agricultural research system.
 - The third specific objective is to strengthen ICT capacities of all GFAR stakeholders to participate in EGFAR. This strengthening of ICT capacities will be based on needs assessment and possible requests directly formulated through EGFAR. The

priority setting will be done by the Advisory Committee after discussions with other stakeholders involved in ICT initiatives, such as FAO/WAICENT and CTA. The final priorities will be decided by the GFAR Steering Committee.

- The fourth specific objective is to promote exchange of experiences as well as of crosscutting activities between RAIS. The Regional Agricultural Information Systems of the various regional and sub-regional agricultural research fora (RF/SRF) are at very different stages of development. Exchanges of experiences are a very concrete manner to promote synergies and economies of scale between the various stakeholders. This kind of activity is absolutely relevant and must be undertaken at the global level.
- b) The second general objective is to identify information resources relevant to agricultural research for development and to enhance access to them by the GFAR stakeholders. This objective takes into account the need to access relevant information in a world characterised by globalisation and increasingly by science-based production systems. This general objective will be split into three more specific objectives.
- The first specific objective is to further develop the actual *EGFAR* website, as an information resource. This objective implies the need to recruit a full-time webmaster. This webmaster will be in charge of the permanent redesign of the *EGFAR* website and of the technical developments, mainly those related to web interfaces to GFAR specific databases (directories of institutions, programmes, researchers, etc.). This webmaster will also serve as a resource-person on this topic for the RAIS, which are generating a concrete demand for this type of support. This objective also involves *EGFAR* in a *portal function* facilitating access to thematic websites which could be developed in the four priority themes of GFAR: genetic resources management and biotechnology, natural resources management and agroecology, commodity chains and under-utilised commodities, policy management and institutional development.
 - The second specific objective is to design, develop and maintain a *gateway function* to access the GFAR stakeholders' information resources that are presently available, mainly in developing countries. The content and the borders of the gateway function will have to be clearly defined by an inventory of the already existing devices, and according to the specific comparative advantages of GFAR. In the meantime a formal link will have to be established between the websites of the key stakeholders, constituting a *Webring*. The ultimate purpose will be to use a multihosts database search engine allowing transparent access to decentralised resources managed at a regional or national level. This kind of application is totally relevant to the previously proposed principles of subsidiarity and decentralisation. This means that *EGFAR* has no vocation to develop and manage databases at a central level. *EGFAR* will have to promote standards to be shared by the various stakeholders; mainly those involved in the *Webring*, previously mentioned. Obviously *EGFAR* will not develop any standards but will have to use those already available. This activity will be done in very close relationship with the WAICENT outreach programme.

- The third specific objective is to facilitate access to relevant information resources in ARD by the GFAR stakeholders. This objective is dedicated to external information resources, which are relevant for the GFAR stakeholders. This includes information on events, but also scientific and technical information. Access to this information is changing rapidly, reflecting the rapid evolution of the new information technologies. Editors, or information providers, offer now electronic access to journals or full text databases. This offer has to be monitored, and thought according to technical and cost constraints and benefits. A consortium of end-users is often very useful to mutualize (through a cooperative arrangement) access to this kind of information. Once more *EGFAR* can play, at a global level, this facilitating role for the GFAR stakeholders, mainly those that do not have the critical size for such negotiations.
- c) The third general objective of *EGFAR* is to *build knowledge pools* in a few high priority areas identified by the GFAR stakeholders. This objective addresses the triple challenge of managing information on a particular topic, converting information into knowledge that is useful for different end-users and stakeholders, and facilitating access to it. The *management of knowledge* is becoming increasingly important in the present context of a knowledge-intensive agriculture. *EGFAR* can be the relevant place for the generation of this kind of *multi-stakeholder knowledge* related to specific research management issues or strategic issues on agricultural research. This third general objective will be pursued through the implementation of two specific objectives related to this endeavour:
- The first specific objective is to develop an *observatory function on the innovative uses of ICT in ARD*. Indeed, a lot of ICT initiatives are taking place at a world-wide level and it is very important to know who is doing what in order to avoid duplicating efforts, to stimulate initiatives, to capitalise on success stories, and to be able to share experiences among stakeholders. Such an observatory function is already being developed by CTA and CIRAD, as information services provider, for the ACP countries – see *ICT updates*, www.agircta.org -. In cooperation with these two institutions, *EGFAR* will now seek to extend it to other developing countries. The CTA/CIRAD experience will be taken as a point of departure, integrating other experiences that stakeholders have been developing in various countries, in both the North and the South. Coordination with these two institutions is being assured.
 - The second specific objective is to selectively contribute to the generation and systematization of knowledge in a few specific areas of the four priorities themes of GFAR. GFAR will play a catalytic and facilitating role in identifying some relevant themes in which stakeholders have an interest to systematise their experiences and their information into a more structured body of knowledge. The generation itself of this knowledge will be outsourced to stakeholders according to their comparative advantages. This mechanism of knowledge generation through the systematisation of information and of experiences on particular topics has two dimensions to it. It is expected that on the specific selected topics there will be a *pool of knowledge* generated by the interaction among stakeholders and through their knowledge management efforts. But secondly, through these pilot efforts of *stakeholder-led knowledge management processes* a learning process will take place and a *model* for this type of knowledge generation may emerge. This methodological dimension is an important aspect of this component of the *EGFAR* project.

The themes to be tackled will be selected by the GFAR Steering Committee, within the key areas of involvement of GFAR, in close relation with initiatives already under development by various stakeholders (i.e. INTERDEV, PROLINNOVA, etc.).

3.2. Logically related outputs and activities

On the basis of the general and specific objectives described in the previous section, a series of concrete *outputs* have been identified in close consultation with stakeholders, to be achieved during the two-year duration of the project. These outputs thus define each objective in very operational terms. At the same time, the specific *activities* to be carried out in order to produce those outputs have also been identified. A synoptic overview of the objectives (general and specific), the expected outputs, and the activities that will be carried out related to each output is presented in Table 1, in the section that describes the work plan of the project.

On the basis of the analysis of the general and specific objectives of the *EGFAR* project described in the previous section, the content of the project is presented in the next three sections. Section 4 presents the logical framework of the *EGFAR* project analysing three sets of hypothesis related to the context in which the project is taking place, as well as the initial activities that have been carried out with participating stakeholders in the last two years of the pilot phase that is presently ending (1999-2000). Section 5 presents the work plan and the budget for the first phase of the project that will take place in 2001–2003, describing the activities that will be carried out in order to achieve each expected output. Some concluding remarks are presented in Section 7.

4. HYPOTHESES, PROJECT'S CONTEXT AND INDICATORS OF VERIFICATION

The analysis of the logical framework of the *EGFAR* project and of the context in which it will operate highlights three sets of possible hypotheses:

- Those related to the global environment of the project from a social, economic and technological point of view,
- The hypotheses related to GFAR activities and mechanisms,
- The hypotheses specific to the *EGFAR* project.

4.1 The global environment

The social and economic context in which the project will take place is very important and obviously will influence the activities of all stakeholders of agricultural research for development. Given its nature and the function it plays, the area of agricultural research is strongly dependent of the availability and level of public funding. The current trend in funding is towards a stabilisation or even a slight decrease in the available public resources dedicated to agricultural research for development. In some countries this decrease may be more significant. At the same time, the dynamism of the private sector as well as the capacities of NGOs and of Farmers' organisations will determine their involvement in the various activities and Fora that *EGFAR* will seek to promote, as well as their investment and effort in developing their own information activities. Given the importance of involving the various stakeholders in the *EGFAR* project, the GFAR Secretariat has been working closely with them in order to assure that *EGFAR* activities complement the information services each stakeholder association provides to its members. This is the case for example with farmers, where the Farmers' Master Page in *EGFAR* will be developed jointly with the development of the website of the International Federation of Agricultural Producers (IFAP). Thus a close symbiotic relationship is being developed between *EGFAR* and the information activities of GFAR stakeholders.

From a technological point of view, a significant improvement in the Internet connection for the institutions of the South is expected in the next coming years, on the basis of telecommunication projects that are well advanced in their implementation. As a result of this evolution of Internet connectivity, the critical parameter will no longer be the technological availability, but rather the cost and the possibility of a cheap flat access rate. The liberalisation of the telecommunication sector is a key element in this international landscape, and we can find now in many countries of the South, like Uganda, Kenya or Senegal, a real competitive private sector of Internet providers.

On the basis of these different variables, the risks can be considered as reasonable.

4.2. The hypotheses related to GFAR

The Global Forum on Agricultural Research (GFAR) is a stakeholder-led initiative that can be considered to be an innovative mechanism in the global landscape of agricultural research for development. Being recent and innovative, this mechanism still has the weaknesses of an organisation in its take-off stage. One of the main risks, that GFAR sees as a challenge, is the effective involvement of all the stakeholders in a really constructive and horizontal communication process that is required by a global information society.

As part of this process, GFAR has elaborated a three-year action plan, January 2001 – December 2003, which will be supported by various donors as well as through in-kind contributions.¹ This three-year action plan is based on the results obtained in the two-year pilot-phase that took place from 1998 to 2000, that culminated with the GFAR-2000 Conference on Research Partnerships (Dresden, May 21-23, 2000). Both the final report and the proceedings of this conference are available.² Furthermore, in the second semester of last year the *First GFAR External Review* took place, with the objective of assessing the process of building up the Global Forum and of seeing what has been learned in terms of developing stakeholder-lead organizations, such as GFAR. This review gave a strong endorsement to the approach that is being followed in building up GFAR and to the lines of action and the activities that are being carried out for such a purpose. It particularly endorsed the effort that is being carried out in the information area, with the development of *EGFAR* at the global level and of the RAIS at the regional/sub-regional levels.³ The First GFAR External Review strongly recommended strengthening the capacity of the GFAR Secretariat to be able to further develop *EGFAR* and the RAIS, through this project, and recommended to donors the support of the project. On the basis of the above, the GFAR Donor Support Group approved, in its meeting in Washington D.C. that took place on October 2000, a preliminary outline of the Programme of Work which was further developed in subsequent months, and approved the recommendation of the External Review of adopting a three year programming and budgeting cycle, the first cycle of which is the 2001-2003 period that is presently initiating. This is the very dynamic context in which the launching of the *EGFAR* project is taking place. It is also important to point out that the development of *EGFAR* and of the concomitant RAIS will play a very important role in the development of the Global Forum concept, and in the implementation of the stakeholder-led organisational approach that GFAR is based on.

4.3. The hypotheses related to EGFAR

EGFAR is expected to be a communication platform and an information system for all the stakeholders that are involved in agricultural research for development. To play such a role at a global level is obviously complex due to the close interaction this requires with the activities undertaken at the regional and local levels. The key to the sustainability of this information system will depend on its capacity to clearly follow the principles of decentralisation and

¹ See «*GFAR Business Plan and GFAR Secretariat Programme of Work for the Period 2001 – 2003*»; Rome, GFAR Secretariat, March 2001.

² See «*GFAR-2000 Conference: Highlights and Follow-up Action*»; Rome, GFAR Secretariat, August 2000.

³ See «*Global Forum on Agricultural Research (GFAR) : First External Review*»; Rome, GFAR Secretariat, October 2000.

subsidiarity. This sustainability will also depend on the capacity of the Regional Agricultural Information Systems (RAIS) to develop, manage and maintain the information systems at their own level. The wealth of information of the various RAIS and of the national research institutions in which they are based (NARS, NGOs, private sector, etc.), as well as their capacity to mobilise and commit the various stakeholders, will significantly determine the interest of accessing information through the *EGFAR* portal or gateway. In order to develop this capacity, *EGFAR* will have to play a facilitating and backstopping role. Furthermore all the decisions related to the management of information which will be shared, will have to be built on a consensus among all the stakeholders involved in this information system. In order to assure this participatory process, the Advisory Committee of *EGFAR* will be the relevant space for such a collegial decision-making mechanism.

EGFAR is also building a concrete and functional partnership with the FAO/WAICENT outreach programme. This partnership will be very important in the adoption of common guidelines, rules, shared structures of data description, etc. As partners in this project and given these common objectives, *EGFAR* will receive in-kind contributions from WAICENT, besides the joint efforts they are both carrying out in the support of the RAIS. As part of this process, *EGFAR* will also contribute directly to the technical and organisational development undertaken by WAICENT, and it will play a key role in the dissemination of the WAICENT outreach tools. Crosscutting activities and synergies are planned as part of this project.

A close collaboration with other initiatives that are working in the development of innovative approaches to knowledge management processes based on stakeholder involvement and on the development of learning networks and knowledge systems, such as BELLANET, will also be sought. The *EGFAR* Secretariat has been in touch with BELLANET in order to identify ways for exchanging experiences and methodologies, and possibly working together in activities of common interest. Similarly, the *EGFAR* Secretariat is exploring with the World Bank the possibility of collaboration with their *Global Development Gateway* facility that is presently being established, since this gateway facility is very closely related to the *EGFAR gateway function* that is an important component of the second major objective of this project and its related activities.

It should also be pointed out that the relevance and feasibility of several of the activities that form part of the action plan of *EGFAR* for 2001-2003 have already been tested in the pilot phase that has been carried out in the last two years, with support from IDRC, Canada and from SDC, Switzerland. The following activities and tools are already operational as a result of this initial pilot phase, and they can be seen or accessed through the *EGFAR* website (<http://www.egfar.org>).

- a) **Activities related to the first general objective of the *EGFAR* Project:** Four RAIS are presently in their design and organisational phase in various regions of the developing world, on the basis of intensive consultations with the stakeholders at the regional/sub-regional levels for the purpose of information needs-assessment. These four RAIS are emerging in Asia/Pacific (the APARIS network of APAARI), in Sub-Saharan Africa (FARA and the sub-regional organisations), in Latin American and the Caribbean (FORAGRO's INFOTEC), and in West Asia and North Africa (AARINENA's RAIS). Besides the four RAIS from the South, there is a similar process taking place in Europe with the establishment of EIARD/InfoSys, whose objective is to facilitate access to the European information sources on agricultural research. In close interaction with their partners from the South, EIARD Info/Sys is playing an important role in various *EGFAR* activities, specially in the development of information tools (i.e.

search engines) that are useful for the RAIS. As a result of these efforts, a network of persons responsible for these information activities in each country has been constituted within each region, and a network of persons responsible for such activities in each region or sub-region has emerged at the global level. Given the fact that *networking* is a very important aspect of the EGFAR approach, the networks that have been established during the pilot phase constitute an important asset for the EGFAR project.

- b) **Activities related to the second general objective of the EGFAR project:** A first important step has already been taken during the pilot phase in the direction of establishing EGFAR as the portal with a gateway function. The initial development of the *Gateway* to research, information and extension institutions of the National Agricultural Research Systems (NARS) of developing and of developed countries that can presently be found in the EGFAR website, as well as the related *NARS Database on Institutional Web Links (NDIL)* that is presently under full development (see www.egfar.org). The activities so far carried out have clearly shown the potentiality of web-based interaction among stakeholders facilitated by such a gateway; secondly, they have demonstrated the rapidity with which institutions in the South are becoming active in Internet; and thirdly, they have underscored the interest stakeholders have in using this tool and in becoming actively involved in such a process. But the task to systematically develop this function in close interaction with all stakeholders is quite formidable, given the different levels and stakeholders involved in it. This is the task that will be tackled by the EGFAR project. The pilot exercise carried out in recent months has already initiated a very interesting dynamics among stakeholders who are now discussing the policy and practice they have to develop with respect to how to manage their websites, how to relate them to knowledge management processes within each institution or stakeholder constituency, and how to use them as tools for interaction with other stakeholders and in networking with like-minded institutions in the globalised world of the XXIst century.
- c) **Activities related to the third general objective of EGFAR:** The most interesting initiative that was initiated in the pilot phase of EGFAR related to the third objective of this project is the *NARS Forum*. This forum is a very good example of the selective construction of *knowledge pools* on particular topics of interest to various stakeholders, that is being carried out through stakeholder-led interaction aimed at systematising information and experiences into useful knowledge, thus seeking to generate a *learning process*. Through the discussion and joint analysis of policy and/or research management problems and challenges, the NARS Forum is generating an electronic platform where the new information and communication tools and approaches can be used in the construction of these knowledge pools, closely related to knowledge management endeavours carried out by stakeholder constituencies. The initial effort carried out in the pilot phase has clearly shown the potentiality of this approach, and the degree of interest and of commitment that stakeholders have with this initiative. The fact that specific NARIs have volunteered to play the role of “*lead NAR*” in developing and managing a specialised forum on specific topics (i.e. EMBRAPA for the topic of funding strategies and mechanisms for agricultural research, PCARRD for the topic of management of knowledge systems, and BAR for the topic of the evolution from NARIs to NARS), clearly shows the type of involvement and of commitment that stakeholders are showing. The present status of the design phase of the NARS Forum can be seen in the EGFAR website (www.egfar.org). But the process is barely starting. The task of the EGFAR project will be to fully implement the NARS Forum.

Besides this forum that is dedicated to NARS management issues, other possible initiatives related to the selective construction of knowledge pools are also being discussed with various stakeholders. The second initiative of this nature that should be mentioned is the NGO-led proposal for the establishment of *Interdev*, as an information system based on the management of knowledge in local innovations at the community level related to agro-ecology and natural resource management. This is a particularly innovative approach with the aim of constructing knowledge pools that combine traditional (local) knowledge with scientific knowledge in an information management perspective led by stakeholders (the farmers, NGOs and extension agents that work with them and researchers). The third initiative that should be mentioned is related to information and knowledge management in the area of specific commodity chains and in the case of underutilised crops. The same principles of concerted efforts among stakeholders to establish information and knowledge pools that they can share, are also being followed in this case.

The above mentioned examples of the activities initiated during the pilot phase and the results so far obtained, provide a good basis for an understanding of the activities that will be carried out by the *EGFAR* project and of the very strong involvement and commitment of stakeholders that is being assured.

4.4. The related indicators of verification

The monitoring of the project will be based on a rigorous follow-up of the various activities related to each expected output, and on a close dialogue and joint analysis that will be carried out with stakeholders on how well these activities are responding to their needs.

In order to make this possible, objectively verifiable indicators have been identified for all concrete expected outputs of the project. Furthermore, the means of verification and the specific assumptions in each case have been spelled out. A set of tables detailing these different indicators and assumptions are presented in Appendix I, organised around the three general objectives of the *EGFAR* project.

5. WORK PLAN AND BUDGET

5.1. Work plan

The general work plan of the EGFAR project is presented in Table 1, in the form of a synoptic overview of the concrete *activities* that will be carried out (column 3) in order to reach each of the *expected outputs* (column 2), in the context of the specific objectives analysed in section 3 above (column 1). Thus this table presents the set of activities that constitute the work plan of this project, that will be carried out within the logical framework described in the previous sections.

A more disaggregated set of tables have been prepared that define the *resource and time requirements* that each activity is expected to generate. These tables define, for each activity that appears in the third column of Table 1, the following parameters:

- the human resource requirement involved in each activity;
- the time estimate of the senior and junior officer necessary to achieve each activity;
- the estimated financial resources needed to carry out each activity;
- the in-kind contributions by the various partners (these are also described in section 5.2 below);
- the projected implementation schedule.

These detailed tables, that will be used for the steering and monitoring of the project, are available on request from the GFAR Secretariat. They have permitted to build the budget of the project that is presented in Tables 2 and 3, on the basis of a detailed costing of each activity.

5.2 In-kind contributions

The in-kind contributions to the project will be made by the various partners involved in the development of EGFAR. The main EGFAR partners that are expected to provide an in-kind contribution are the following: (a) the GFAR stakeholders who will interact with each other through this information system; (b) the RAIS that will play a key role in facilitating access to information resources at the regional/sub-regional level (including EIARD/InfoSys); (c) FAO/WAICENT and its Outreach component which is expected to lead the activities related to information standardisation and tool kit development for information management; and (d) key players in the area of information and knowledge management that have been identified above as playing a strategic role in information and knowledge management (i.e. BELLANET, CTA and the World Bank/Gateway Facility, with which specific components of this project have been discussed for a collaborative effort in carrying them out).

Besides these direct partners, the French Ministry for Foreign Affairs (MAE) is making an important contribution by supporting the salary of the proposed senior Officer who will be in charge of the management of the project during its two-year duration.

Table 1 – EGFAR Plan of Action: Objectives, Outputs and Activities

General objective 1: To develop and manage, in a neutral and transparent way, an interactive communication system between the various stakeholders of agricultural research for development in the perspective of developing a global research system.

Specific Objectives	Expected Outputs	Activities
1.1. To establish a neutral and transparent governance of EGFAR	<p>1.1.1. EGFAR is the operational communication tool of GFAR stakeholders</p> <p>1.1.2. The GFAR Steering Committee is regularly informed of specific ICT threats and opportunities to take policy decisions regarding EGFAR</p>	<ul style="list-style-type: none"> ➤ Establishment of an EGFAR Advisory Committee, and following up of its activities ➤ Yearly meetings of the Advisory Committee in conjunction with the GFAR Steering Committee
1.2. To build a communication platform between all the GFAR stakeholders	1.2.1. Dialogues on global or strategic issues between the various stakeholders have taken place and position papers and shared visions formulated	<ul style="list-style-type: none"> ➤ Design and validation of a format to capture all suggested topics to debate ➤ Establishment of a database to register the different suggestions ➤ Launching and managing electronic discussion fora
1.3. To strengthen ICT capacities of all GFAR stakeholders to participate in EGFAR	<p>1.3.1. RAIS are strengthened while preserving and strengthening the sub-regional dimension</p> <p>1.3.2. All GFAR stakeholders are capable to participate in discussion fora on topics of local, regional or global interest and in global programmes</p> <p>1.3.3. The WAICENT resource kit is operational and widely adopted by the GFAR stakeholders</p>	<ul style="list-style-type: none"> ➤ Sensitisation to the needs for changes in institutional approach to information management ➤ Needs assessment and priority setting between RAIS of the RF/SRF of NARS ➤ Specific support to RAIS ➤ Formulation of guidelines and technical advice ➤ Providing technical backstopping ➤ Providing services of a trouble shooter according to priorities agreed by the GFAR Steering Committee ➤ Contribution to the development of the WAICENT resource kit ➤ Support to the dissemination of the WAICENT resource kit
1.4. To promote exchange of experiences and cross-cutting activities between RAIS	<p>1.4.1. A mailing list is established covering all the ICT officers of the GFAR stakeholders. Hot ICT topics are regularly discussed and updated</p> <p>1.4.2. Inter-regional workshops involving the RAIS managers are yearly held</p>	<ul style="list-style-type: none"> ➤ Establishment of a general mailing list and of specialised discussion lists ➤ Identification of ICT hot topics and of potential moderators ➤ Holding an annual meeting, possibly in conjunction with the Advisory Committee

Table 1 – EGFAR Plan of Action: Objectives, Outputs and Activities

General objective 2: To identify information resources relevant to agricultural research for development and enhance access to them by the GFAR stakeholders through a gateway (portal) function.

Specific Objectives	Expected Outputs	Activities
<p>2.1. To further develop the EGFAR website</p>	<p>2.1.1. EGFAR is a user friendly, searchable and regularly updated website</p> <p>2.1.2. Relevant information on GFAR is accessible on line</p> <p>2.1.3. EGFAR website is a portal facilitating access to thematic websites, as initiatives develop in the four priority themes of GFAR</p>	<ul style="list-style-type: none"> ➤ Formulation of Terms Of Reference for a webmaster ➤ Selection and appointment of a junior officer as webmaster ➤ Establishment of web interfaces to access full-text papers or internal databases of the GFAR secretariat ➤ Co-designing the thematic websites (e.g. genetic resources management) between EGFAR and the leader of each initiative ➤ functional requirement definitions ➤ contribution to the technical development of initiatives
<p>2.2. To design, develop and maintain a gateway function to access the GFAR stakeholders' information resources presently available</p>	<p>2.2.1. Identification of the specific functional requirements of the EGFAR gateway</p> <p>2.2.2. A Webring is established across the key stakeholders in ARD through formal agreements</p> <p>2.2.3. Websites providing relevant institutional information on stakeholders involved in ARD are identified and searchable through various criteria in EGFAR.</p> <p>Phase 1, at least the stakeholders involved in the webring</p> <p>Phase 2, coverage extended according to the recommended requirements of the gateway function</p>	<ul style="list-style-type: none"> ➤ Needs assessment of some key GFAR stakeholders ➤ Resource inventory of the relevant gateways already available in the field of ARD ➤ Defining the gateway function according to the specific comparative advantages of GFAR and functionalities available at the RAIS level ➤ Agreements including technical requirements to allow multihost searchability are established and signed between the different Webring members ➤ Mapping the websites of the ARD stakeholders ➤ Designing the access to the websites of ARD stakeholders ➤ Strategic watching and monitoring of the internet

Table 1 – EGFAR Plan of Action: Objectives, Outputs and Activities

	<p>2.2.4. The scientific and technical information resources available in the websites belonging to the EGFAR webring (directories, bibliographic databases, etc;) are searchable from EGFAR</p>	<ul style="list-style-type: none"> ➤ Indexing the websites relevant to ARD to facilitate retrieval ➤ Design of a search tool to facilitate the access to the relevant information available on these websites ➤ Functional requirements of this multihost searchability are defined and discussed for operationalisation with WAICENT ➤ Implementation of a multihosts search engine on EGFAR
<p>2.3. To facilitate the access to relevant information resources in ARD by the GFAR stakeholders</p>	<p>2.3.1. Information on major events in the field of ARD is provided and regularly updated</p> <p>2.3.2. A users' guidelines of available electronic information resources relevant to ARD is hosted by EGFAR</p> <p>2.3.3. Consortia are established at the national, subregional or regional level to negotiate with publishers offering online access to electronic journals or databases</p>	<ul style="list-style-type: none"> ➤ Design of a format ➤ Regular updating of EGFAR by GFAR stakeholders and secretariat ➤ Defining the Terms Of Reference of the expected guidelines ➤ Outsource the writing up of the draft document ➤ Users' testing of the guidelines ➤ Publication of the final version on the website of EGFAR ➤ Regular updating of the guidelines ➤ Study of the providers' supply and of the stakeholders' demand ➤ Assist in the establishment of users' consortia for their negotiations with electronic information providers

Table 1 – EGFAR Plan of Action: Objectives, Outputs and Activities

General objective 3: To selectively build knowledge pools for a few high priority areas identified by the GFAR Stakeholders.

Specific Objectives	Expected Outputs	Activities
3.1. To develop an observatory function on the innovative uses of ICT in ARD	3.3.1. GFAR stakeholders are regularly informed of the innovative uses of ICT in the field of ARD and other related fields	<ul style="list-style-type: none"> ➤ Formulation of the requirements of this global observatory function ➤ Identification and contracting of a provider Implementation and updating of EGFAR observatory
3.2. To contribute to the generation of knowledge pools in a few specific areas of the four priority themes of GFAR	3.2.1. Knowledge pools are developed for either key topics of the ARD strategic agenda (i.e. NARS Forum), or in some of the four main areas of GFAR (GRM, NRM, commodity chains and PMID) 3.2.2. A model of the process of knowledge generation from a multi-stakeholders perspective is elaborated	<ul style="list-style-type: none"> ➤ Identification of key stakeholders by GFAR ➤ Definition of the Terms Of Reference of the expected knowledge pools ➤ Outsourcing to the stakeholders of key initiatives the generation of these knowledge pools ➤ Review of the established knowledge pools to formulate guidelines for the generation of knowledge involving various stakeholders

5.3. EGFAR Budget

The budget required for the EGFAR project is mainly dedicated to supporting two types of costs: personnel (staff) costs and operating costs. A further description of each one is presented below.

a) Personnel costs.

These costs cover the related salaries of the senior and junior officers in charge of the management of the project within the GFAR secretariat. The cost of the senior officer in charge of the Information and Communication Management (ICM) will be supported by the French Ministry of Foreign Affairs (MAE) and CIRAD (France) for the duration of the project (two years). This will be an in-kind contribution, estimated as a P5 FAO staff level. The annual cost of this person is estimated at US \$ 120,000.

The cost of the Information and Communication Technology (ICT) junior officer of the project, acting mainly as a webmaster, will be charged to the project at the salary level of a P2 FAO staff. The annual cost of this person is estimated at 75,000 US \$.

A secretary at US \$ 35,000 per year is also being included.

On the basis of this budget estimate for the senior and the junior officers and for the secretariat, the budget lines for staff have been reported both in the total budget table per nature of expenditures presented below (see Table 2), as well as in the budget table per year (see Table 3).

b) Operating costs.

The operating costs of the project cover:

- consultants hired during the project,
- contracts established with service providers,
- various expenditures related to the operation of the project (i.e. travel, support of workshops, telecommunications, secretarial support, software purchase, etc.).

The expected operating costs are presented below, in the budget table per nature of expenditure (see Table 2), in the budget table per year (see Table 3) and in the budget table per main objective of the project (see Table 3).

The total budget of the EGFAR project is being estimated at US \$ 846,000 for the two years of duration. Of this amount, US \$ 556,000 are being requested from donors. The other US \$ 290,000 coming from a) the contribution that France is making to this project (US \$ 240,000 for the senior officer in charge of ICM), b) from the GFAR core budget (US \$ 50,000).

It should be pointed out that this budget does not include the final external review that is mentioned in section 6 of this project proposal.

TABLE 2 : EGFAR Budget per nature of costs

	Requested Donors	France	GFAR Core Budget
1 - Project staff:			
1.1 Senior officer (project leader)		240,000	
1.2 Junior officer (webmaster)	150,000		
1.3 Secretary of EGFAR	70,000		
1.4 Other staff of GFAR Secretariat			40,000
Sub-total staff costs	220,000	240,000	40,000
2 - Consultants:			
2.1 Related to objective 1 activities	25,000		
2.2 Related to objective 2 activities	30,000		
2.3 Related to objective 3 activities	5,000		
Sub-total consultancy costs	60,000		
3 - Support of Workshops involving RAIS and other stakeholders			
Sub-total support of workshops	40,000		
4 - Contracts with service providers:			
4.1 Related to objective 1 activities	10,000		
4.2 Related to objective 2 activities	10,000		
4.3 Related to objective 3 activities	20,000		
Sub-total contracts with service providers	40,000		
5 - Travel by SO and JO:			
5.1 Tickets	40,000		
5.2 Per-diem	20,000		
Sub-total travel	60,000		
6 - Exchange of experiences among RAIS:			
6.1 Exchange of expert	20,000		
6.2 Support to the inter-RAIS platform	10,000		
Sub-total inter-RAIS activities	30,000		
7 - Office equipment anc communication:			
7.1 Two computers, a printer ans software	10,000		
7.2 Telecommunications	16,000		
Sub-total equipement & communication	26,000		
8 - Meeting of EGFAR Advisory Committee:			
8.1 Two meetings of AC at 25.000 each	50,000		
Sub-total cost of EGFAR AC	50,000		
9 - Administration of the project:			
9.1 Project administration and overhead	30,000		10,000
Sub-total project administration	30,000		10,000
Total EGFAR Budget	556,000	240,000	50,000

TABLE 3 : EGFAR Budget per Year

YEAR	Y1	Y2	Total
Staff	250,000	250,000	500,000
Consultants	40,000	20,000	60,000
Contracts with service providers	15,000	25,000	40,000
Specific expenditures: support of workshops, inter RAIS activities, meetings Egfar AC	60,000	60,000	120,000
General expenditures: equipment, telecommunication, travel, project administration	68,000	58,000	126,000
Total	433,000	413,000	846,000

TABLE 4 : EGFAR Budget per Objectives

Objectives	Personnel (senior +junior) costs	Consultants	Contracts with services providers
General objective 1: to develop and manage, in a neutral and transparent way, an interactive communication systems			
1.1. To establish a neutral and transparent governance of EGFAR	12,000		
1.2. To build a communication platform between all the GFAR stakeholders	12,750	15,000	
1.3. To strengthen ICT capacities of all GFAR stakeholders to participate in EGFAR	87,000		5,000
1.4. To promote exchange of experiences and cross-cutting activities between RAIS	25,500	10,000	
Sub-total objective 1	137,250	25,000	5,000
General objective 2: To identify information resources relevant to agricultural research for development and enhance access to them by the GFAR stakeholders.			
2.1. To further develop the EGFAR website	95,600		
2.2. To design, develop and maintain a gateway function to access the GFAR by the GFAR stakeholders. stakeholders information resources available	75,400	15,000	10,000
2.3. To facilitate the access to relevant information resources in ARD by the GFAR stakeholders	43,850	15,000	
Sub-total objective 2	214,850	30,000	10,000
General objective 3: To build knowledge pools for a few high priority areas identified by the GFAR Stakeholders			
3.1. To develop an observatory function on the innovative uses of ICT in ARD	12,000		10,000
3.2. To contribute to the generation of knowledge in a few specific areas of the four priority themes of GFAR	25,900	5,000	15,000
Sub-total objective 3	37,900	5,000	25,000
Secretarial support and other GFAR staff	110,000		
General expenditures			
Sub-total miscellaneous	110,000	0	0
TOTAL	500,000	60,000	40,000

6. PROJECT MONITORING AND REPORTING

6.1. The reporting cycle

A six monthly reporting cycle will be implemented for all *EGFAR* activities. The production of these semestral short reports will be under the responsibility of the ICT senior officer, in close cooperation with the webmaster and the GFAR executive secretary. The "milestones" will be derived from the work plan described in section 3 (Table 1) and in Appendix I. A copy of these reports will be sent to the *EGFAR* Advisory Committee, for comments or further discussions between the various stakeholders.

The donors and the GFAR Steering Committee will also receive these semestral reports with a specific financial appendix.

6.2. Mid-term report

The project will be carried out over a two year period. One year after its launching a mid-term report will be prepared covering the first half of the project, indicating the progress being made in terms of the proposed work plan. The report will identify those activities that are on target for completion, in comparison with the timetable. The activities that are lagging behind will be analysed, with an explanation of the reason for the new timetable that will have to be adopted.

This mid-term report will include a financial analysis of expenditures in comparison with the approved budget figures.

The report will be circulated to the *EGFAR* Advisory Committee for further discussions to be held during the yearly "ad hoc" meeting, in conjunction with the GFAR Steering Committee.

After this round of discussions and of further improvement, the report will be submitted to the donor agencies.

6.3. Project evaluation report

At the end of the project the evolution of *EGFAR* will be evaluated by a team of independent consultants, acting as an external review. This team will involve an ICT specialist and representatives from key stakeholders, including NARS and other relevant actors. The detailed terms of references for this external review will be submitted by the GFAR executive secretary to the GFAR Steering Committee for final approval. The terms of reference will have to take in consideration the main constraints faced by the *EGFAR* project during its execution, as well as

a detailed analysis of the degree to which the various objectives and expected outputs have been achieved. For this purpose, the information provided in Annex 1 will be quite useful (indicators of achievement and means of verification). This external review should provide important elements for the design of a possible second phase of the project, specially related to the progressive integration of the various components of *EGFAR* into the regular programmes of the partners involved.

The cost of such an external review is being estimated at US \$ 15,000 to 20,000. This cost is not included in the project's budget, given the fact that this evaluation may have to follow specific rules of the donor Agency, or may be shared between all the donors involved in the Project. Further discussions will have to be led by the GFAR secretariat on this topic.

7. CONCLUDING REMARKS

The Global Forum for Agricultural Research (GFAR) seeks to mobilise the world agricultural research community in its efforts to assure food security, eradicate poverty and assure a sustainable development. In doing so, it seeks to contribute to the re-vitalisation of this area of research through the increased synergies among the stakeholders of this activity. Furthermore, GFAR enhances a participatory approach involving all the stakeholders of agricultural research for development, on the basis of building a neutral and transparent platform allowing exchanges and sharing of information among stakeholders, and enhancing networking and horizontal communication that is required in the construction of a truly global society. The main operational goal of GFAR is to contribute to the achievement of a global agricultural research system, through the strengthening of research partnerships related to the implementation of global programmes and by supporting the developing countries' NARS and their regional fora, in order to assure their effective participation. The GFAR governance is the result of mechanisms decided by the stakeholders themselves, according to a principle of delegation from the local level to the regional and global levels.

A critical issue for GFAR will be its capacity to build effective and horizontal communication processes among stakeholders, getting away from the vertical communication within constituencies that characterise many stakeholders in the contemporary world. This is the reason why the Dresden Conference, and a few months later the First External Review of GFAR, both highlighted the need for the Global Forum to develop a specific information and communication platform, on the basis of the preliminary results being obtained in the initial pilot phase of *EGFAR*. Access to information and the need to facilitate the application of Information and Communication Technologies (ICT) to development, had also been identified as a high priority by all the NARS and their regional fora (RF). The present *EGFAR* project responds to this felt need of GFAR.

In pursuing the three general objectives presented in this project proposal, *EGFAR* will follow the principle of decentralisation allowed by the new Internet technology, and of subsidiarity, key issue for the sustainability of the project. Following these principles *EGFAR* will develop synergies between the Regional Agricultural Information Systems (RAIS), still under construction, and will facilitate cross-cutting activities between them. *EGFAR* will have to play the role of a portal for ARD, including a gateway function to facilitate access to the decentralised information resources of key stakeholders, including the NARS, the RAIS, the CGIAR, the ARIs, the NGOs, the private sector and the farmers themselves. *EGFAR* will not manage any central database fed by decentralised actors responsible for the inputting. On the contrary, it will develop and use multihost database search engines. This kind of device, as well as the concomitant guidelines and rules that go with it, will be developed in very close cooperation with key actors in this field. This is the key reason why this project has been designed in close cooperation with FAO/WAICENT, with BELLANET and with other key actors in this field. It is the same reason why the GFAR Secretariat is being hosted by FAO in Rome.

**APPENDIX I -
Expected Outputs, Verifiable
Indicators and Means of Verification**

Expected outputs related to the objective 1	Objectively verifiable indicator(s)	Mean(s) of verification	Assumption(s)
(111). <i>EGFAR</i> is the operational communication tool of GFAR stakeholders	Wealth of discussions held on ARD topics by the GFAR stakeholders	Statistics on the number of hits on the website Analysis of the visiting URL	The website is well known by the end-users
(112). The GFAR S.C. is regularly informed of specific ICT threats and opportunities to take policy decision regarding <i>EGFAR</i>	ICT topics are proposed for discussions to the GFAR S.C.	Agendas of the various Steering Committee	Need of such an information by the end-users
(121). Dialogues on global strategic issues between the various stakeholders have taken place and some position papers and shared visions formulated	Key papers are available on the <i>EGFAR</i> website	Consultation of the website and its archives	Willingness of the stakeholders to build shared visions
(131). RAIS are strengthened while preserving and strengthening the sub-regional dimension	Progresses made by RAIS (technical devices, contents, etc.)	RAIS websites consultation Resources of RAIS are accessible from <i>EGFAR</i> gateway	RAIS are funded and recognised by the end-users
(132). All GFAR stakeholders are capable to participate to fora of discussions of local, regional or global interest	Involvement of the various GFAR stakeholders in fora of discussions	Statistics of the website	<i>EGFAR</i> is recognised by the GFAR stakeholders
(133). The Waicent resource kit is operational and widely adopted by the GFAR stakeholders	Development of the tool kit	Effective availability and list of diffusion	Need of the end-users for standardised tools
(141). A mailing list is established between all the ICT officers of the GFAR stakeholders. Hot ICT topics are discussed and updated	Availability of the list and related archives	Website consultation	Involvement of the stakeholders
(142). Inter-regional workshops involving the RAIS managers are yearly held	Agendas and lists of participants	Availability of the minutes	RAIS managers involvement

Outputs related to objective 2	Objectively verifiable indicator(s)	Mean(s) of verification	Assumption(s)
(211). EGFAR is a user friendly, searchable and regularly updated website	Wealth evolution of the website Each input to the website is dated	Statistics related to the number of hits Efficiency of the engine to search local or distant resources	The EGFAR website is well known and relevantly indexed
(212). Relevant information on GFAR is accessible on line	Availability of papers on GFAR activities	Website consultation	Interest of the GFAR stakeholders
(213). EGFAR website is a portal facilitating access to thematic websites, as initiatives developed in the four priority themes of GFAR	Links are effectively established and updated	Consultation of the website Efficiency of the search engine	Involvement of the stakeholders
(221). Identification of the specific functional requirements of the EGFAR gateway	Requirements definition	Availability of the technical report	Willingness of RAIS to share information
(222). A webring is established across the key stakeholders in ARD through formal agreements	Availability of the links on the website	Agreements are signed	Interest of the GFAR stakeholders
(223). Websites providing relevant institutional information on stakeholders involved in ARD are identifiable and searchable through various criteria in EGFAR	Availability of the links on the website	Effectiveness of the search	Agreement from the owners of the information
(224). The scientific and technical information resources available in the websites belonging to the webring are searchable from EGFAR	Availability of the links on the webs	Access to the website	Agreement from the owners of the information
(231). Information on major events in the field of ARD is provided and regularly updated	Specific dedicated heading within the website	Regularity of the information updating process	GFAR stakeholders involvement
(232). A users' guidelines of available electronic information resources relevant to ARD is hosted by EGFAR	Specific dedicated heading within the website	Access to the website	Need for such a tool from the end-users
(233). Consortia are established at the national or regional level to negotiate with publishers offering online access to electronic journals or databases	Effective agreements with publishers	Established contracts	Need for such a tool from the end-users

Outputs related to objective 3	Objectively verifiable indicator(s)	Mean(s) of verification	Assumption(s)
(311). GFAR stakeholders are regularly informed of the innovative uses of ICT in the field of ARG and other related fields	An observatory heading is available within the website	Website consultation	Need for such a tool from the end-users
(321). Knowledge bases are developed for some of the four main areas of GFAR	Specific heading dedicated to knowledge bases in the website	Website consultation	Need for such a tool from the end-users
(322). A model of the process of knowledge generation from a multi-stakeholders perspective is elaborated	Availability of the study report	Consultation of the report	Need for such a tool from the end-users