Inventory of Forward Thinking in Agriculture and Rural Development: Preliminary results

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Correct citation:
Table of Contents

Acknowledgments................................................................................................................. 4
Acronyms and abbreviations............................................................................................... 5
Summary ................................................................................................................................. 6
1. Background....................................................................................................................... 7
2. Survey methodology ......................................................................................................... 8
3. Results ............................................................................................................................... 10
  3.1. Geographic distribution of responses........................................................................... 10
  3.2. Profile of respondents ................................................................................................. 13
  3.3. Topics reported ............................................................................................................. 14
4. Additional individuals and organizations engaged in foresight activities ....................... 15
5. Reference to the CGIAR.................................................................................................... 15
6. Further activities ............................................................................................................. 15
  6.1. Internet search on foresight activities ......................................................................... 15
  6.2. Analysis of foresight documentation collected through survey and internet search 15
  6.3. Write workshops with authors of foresight documents ............................................ 16
Annexes............................................................................................................................... 17
  Annex 1: Geographical regions ......................................................................................... 17
  Annex 2: Announcement of the foresight inventory ....................................................... 17
  Annex 3: Inventory questionnaire .................................................................................. 18
  Annex 4: Documents reviewed ....................................................................................... 20
  Annex 5: Organization’s web links examined .................................................................... 23
  Annex 6: Additional foresight information from internet search .................................. 31

List of Tables

Table 2.1 Emails sent by language ....................................................................................... 10
Table 3.1 Position held by respondents ............................................................................... 13
Table 3.2 Forward thinking topics by category ................................................................... 14

List of Figures

Figure 3.1 Distribution of answers by region ........................................................................ 11
Figure 3.2 Distribution of answers per type of organization ................................................ 11
Figure 3.3 Types of organizations by region ....................................................................... 12
Figure 3.4 Types of organizations ....................................................................................... 13
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Finally, we are thankful for the contribution of the members of the Global Foresight Hub of GFAR who contributed to the data analysis.

Robin Bourgeois, Cristina Sette and Javier Ekboir
Foresight Inventory Team
### Acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AARINENA</td>
<td>Association of Agricultural Research Institutions in the Near East and North Africa</td>
</tr>
<tr>
<td>APAARI</td>
<td>Asia Pacific Association of Agricultural Research Institutions</td>
</tr>
<tr>
<td>CACAARI</td>
<td>Central Asia and the Caucasus Association of Agricultural Research Institutions</td>
</tr>
<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
</tr>
<tr>
<td>CIAT</td>
<td>Centro Internacional de Agricultura Tropical/International Center for Tropical Agriculture</td>
</tr>
<tr>
<td>CIP</td>
<td>Centro Internacional de la Papa/International Potato Center</td>
</tr>
<tr>
<td>CSO</td>
<td>Civil Society Organization</td>
</tr>
<tr>
<td>FORAGRO</td>
<td>Forum for the Americas on Agricultural Research and Technology Development</td>
</tr>
<tr>
<td>GFAR</td>
<td>Global Forum on Agricultural Research</td>
</tr>
<tr>
<td>ICARDA</td>
<td>International Center for Agricultural Research in the Dry Areas</td>
</tr>
<tr>
<td>ICRAF</td>
<td>World Agroforestry Centre</td>
</tr>
<tr>
<td>ICRISAT</td>
<td>International Crops Research Institute for the Semi-Arid Tropics</td>
</tr>
<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
</tr>
<tr>
<td>IITA</td>
<td>International Institute of Tropical Agriculture</td>
</tr>
<tr>
<td>ILAC</td>
<td>Institutional Learning and Change Initiative</td>
</tr>
<tr>
<td>ILRI</td>
<td>International Livestock Research Institute</td>
</tr>
<tr>
<td>IRRI</td>
<td>International Rice Research Institute</td>
</tr>
<tr>
<td>IWMI</td>
<td>International Water Management Institute</td>
</tr>
<tr>
<td>NARO</td>
<td>National Agricultural Research Organization</td>
</tr>
<tr>
<td>NARS</td>
<td>National Agricultural Research System</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
</tbody>
</table>
Summary

At the end of 2011, the Global Forum on Agricultural Research (GFAR) initiated a worldwide inventory on forward-thinking activities related to the future of agriculture, rural development and farming systems. The inventory had two main objectives. The first objective was to develop a database on ongoing forward-thinking activities in the framework of the Global Foresight Hub of the GFAR (see http://www.egfar.org/our-work/shaping-future-together/global-foresight-hub). The second objective was to provide solid ground for the preparatory work of the foresight session at the Global Conference on Agricultural Research for Development (GCARD) 2012 (see http://www.egfar.org/gcard-2012).

The first activity of the inventory on forward thinking, whose results are reported in this document, intended to identify individuals and organizations engaged in foresight activities, as well as documentation of the foresight topics and methodologies used. Identification relied on electronic media. More than 5,800 contacts were established, covering all continents and major languages. Although the process should not be considered exhaustive, it provides the most accurate recount of the issue to date. The electronic survey received 1,136 responses, of which 411 indicated that their organizations are engaged in foresight and that the activities are documented in some form.

The survey shows that the respondents who answered positively to being engaged in foresight activities are: affiliated with universities and government institutions; in senior management positions in Latin America, Europe and North America mainly; and are doing foresight and future scenarios primarily in agricultural production, markets and land use.

The survey collected over 300 documents, as well as suggestions about professionals to be contacted from the private and public sectors, and links to organizations doing foresight. These will be analyzed in the coming months.

The issues raised from the analyses of these documents, and by directly interacting with those in charge of foresight worldwide, will be part of the process for preparing the GCARD 2012 foresight session. They will also feed the work of the Global Foresight Hub, especially its Forward Thinking Platform, established through GFAR.
1. Background

In preparation for CGARD 2012, the Global Forum on Agricultural Research (GFAR) conducted an inventory of forward-thinking activities. The inventory is part of a larger collaboration between the GFAR Secretariat and the Institutional Learning and Change Initiative of the CGIAR – ILAC. The first activity was an electronic survey developed and carried out from early December 2011 to the end of January 2012 (for the survey announcement and questions, see Annexes 2 and 3 respectively).

The survey aimed to identify and record forward-thinking activities that have been implemented since 2007, in a systematic and documented way, on issues related to agriculture, rural development and farming patterns with at least a ten-year perspective.

This work contributes to two processes. The first one is the establishment of a reliable and, if possible, exhaustive database on existing forward-thinking activities worldwide related to the future of agriculture, rural development and farming patterns. It is part of the operation of the Global Foresight Hub, an initiative launched through GFAR (see http://www.egfar.org/our-work/shaping-future-together/global-foresight-hub). The second process is the preparation of the foresight session of the Global Conference on Agricultural Research for Development, to be held in 2012 (GCARD 2012).

GCARD 2012 will focus on foresight, partnership and capacity development. By bringing the current state of agricultural foresight activities and their implications in open debates, the foresight session of the GCARD will contribute to the development of an agenda of action for inclusive prioritization of research, and for partnership and capacity development in foresight. This update intends to report on the progress made towards “improved foresight”, a concept highlighted in the ‘GCARD Road Map’. Improved foresight consists of “forward-looking, anticipatory research and analysis” integrating “a range of perspectives on key issues, making use of the best available data and interpretations from different sources and directly integrating the diverse views of farmers and other stakeholders on specific problems, so that important issues are examined through multiple ‘lenses’.”

The inventory directly serves this purpose by providing the most accurate recount of the state of foresight available so far, through an open and inclusive worldwide process of inquiry. Analysis of results will make it possible to:

• discuss to what extent progress towards improved foresight has been achieved, especially in mobilizing interpretations from different sources and examining important issues through multiple lenses;
• identify relevant cases which will be useful for highlighting to what extent there is a diversity of interpretations, a diversity of sources and a diversity of lenses used;
• contribute to the debate on research priorities and investments needed today in order to address identified future challenges; and

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1 The notion of “forward thinking” activities is used here to encompass activities aiming at exploring and/or anticipating future changes in the agricultural sector and agricultural research. Forward thinking includes: i) forecasts/predictions based on projections of quantitative variables and simulations of alternative options through mathematical modeling; ii) foresight approaches based on multidimensional qualitative representation of possible evolutions through scenario building or visioning; and iii) combinations of both approaches.

• enable the GCARD 2012 participants to commit to collective action for improved foresight, and to have a stronger impact on research and development through more equitable partnership and balanced capacity development.

2. Survey methodology

A mixed-method approach was used to enable verification of information from different sources to draw conclusions. The methods included: document review; examination of websites of organizations for information related to forward thinking; and distribution of a questionnaire. The list of documents reviewed is in Annex 4, and a list of web links is in Annex 5.

The survey and its announcement were prepared in seven languages (Arabic, Chinese, English, French, Portuguese, Russian and Spanish) to provide an opportunity for more people to participate.

The survey questions included:

• Has your organization anticipated/explored the future evolution of, or future challenges in, agriculture or rural development in the next 20 years?
• Have the outcomes of these activities been documented?
• Have you personally done any systematic work in the last five years to anticipate/explore the future evolution of agriculture, rural development or farming systems?
• If yes, what issues or topics were discussed?

A web-based survey provider, Survey Monkey,3 was used to administer the questionnaire. Participants were asked to respond to eight questions. The survey is included in Annex 3 of this report.

The data were collected in two ways: (1) personal survey links sent directly to individual experts or key organizations considered to potentially be developing forward thinking; and (2) an open web link containing the survey to allow individuals who were not directly contacted to respond (aiming to create a “snowball” effect). The web link was shared through the GFAR website, professional social networks (e.g. LinkedIn) and within the forward thinking networks that are engaged with GFAR.

The survey was available online for seven weeks, from 7 December 2011 to 31 January 2012. Three reminders were sent within this period.

A total of 5,848 emails were sent in all seven languages, with 5,435 (93%) successfully delivered and 413 (7%) not delivered for technical reasons. From the emails delivered, 16 respondents (0.3%) opted to be excluded from participating.

From those emails sent, 5,249 came from the original database created by the Foresight Inventory team. The remaining 599 emails (11.4%) came from contact databases shared by networks and individuals, after the first group of emails was sent.

The emails sent contained a link to a questionnaire in the same language as the email message. In a few cases, when the language spoken by the contact person was not known, a message formulated in more than one language was sent. All messages sent contained the web link to the questionnaire in all seven languages to give the recipient to opportunity to choose the language he/she felt more comfortable with.

3 www.surveymonkey.com
Table 2.1 shows (by language) the number of emails sent, delivered and not delivered.
Table 2.1 Emails sent by language

<table>
<thead>
<tr>
<th>Language</th>
<th>English</th>
<th>Arabic</th>
<th>Arabic &amp; French</th>
<th>Chinese</th>
<th>English &amp; Arabic</th>
<th>English &amp; Chinese</th>
<th>English &amp; French</th>
<th>French</th>
<th>Portuguese</th>
<th>Russian</th>
<th>Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5848</td>
</tr>
<tr>
<td>delivered</td>
<td>3798</td>
<td>235</td>
<td>29</td>
<td>42</td>
<td>93</td>
<td>57</td>
<td>83</td>
<td>459</td>
<td>177</td>
<td>54</td>
<td>821</td>
<td>5848</td>
</tr>
<tr>
<td>non-delivered</td>
<td>3568</td>
<td>204</td>
<td>27</td>
<td>39</td>
<td>76</td>
<td>56</td>
<td>78</td>
<td>438</td>
<td>170</td>
<td>52</td>
<td>732</td>
<td>5435</td>
</tr>
<tr>
<td>opted out</td>
<td>230</td>
<td>31</td>
<td>2</td>
<td>3</td>
<td>17</td>
<td>1</td>
<td>5</td>
<td>26</td>
<td>7</td>
<td>2</td>
<td>89</td>
<td>413</td>
</tr>
<tr>
<td>responded</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>not responded</td>
<td>3582</td>
<td>228</td>
<td>28</td>
<td>39</td>
<td>92</td>
<td>56</td>
<td>76</td>
<td>432</td>
<td>163</td>
<td>53</td>
<td>789</td>
<td>5538</td>
</tr>
</tbody>
</table>

During the process, it was noticed that a high number of responses originated in the Latin America and the Caribbean region. This result can have two explanations. First, more organizations conduct foresight activities in the region. Second, the survey was better disseminated in the Latin America and the Caribbean region because the regional forum for agricultural research (FORAGRO) directly distributed the survey link among its network, while the other fora sent their databases to the Inventory Team, which later made the contacts. At this point, we do not have information to decide which explanation is more probable.

The survey received 1,136 responses, of which 309 (27%) were a result of a direct email contact (5.7% response rate), while 827 (73%) filled the survey through the survey web link.

The data were organized and analysed using two programs: MS Windows Excel (quantitative and qualitative data) and NVivo (qualitative data).

3. Results

One of the objectives of the foresight inventory was to identify documented foresight activities (Question 3). A total of 411 respondents indicated that their organizations, or that they themselves, were involved in foresight and the activities were documented, representing 36.2 percent of the total responses received.

This section of the report will focus on the results generated by the 411 responses only. However, it must be noted that at this stage these “documented foresight activities” were considered as such by the respondents, not by the Foresight Inventory Team. The next step was to screen these answers and verify their suitability with the foresight criteria used for further analysis.

Sub-sections 1 to 3 report on the geographic distribution of the responses, the respondents’ profile, and the topics identified in the inventory.

3.1 Geographic distribution of responses

The geographic location of each respondent was identified through their Internet Protocol (IP) address; the majority of respondents were located in Europe (148 responses) and Latin America and the Caribbean (145 responses), followed by Sub-Saharan Africa (48 responses). Each region and the countries it comprises are listed in Annex 1. Figure 3.1 illustrates the geographic distribution of respondents.

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4 Calculated by dividing the number of responses received by email and the number of emails delivered

5 This distribution and all others thereafter reported do not necessarily reflect the actual distribution of forward thinking activities worldwide, since it is impossible to assume at this stage that the inventory had exhaustively reached all individuals and organizations engaged in foresight. The inventory is nevertheless a first and important step in building a comprehensive database on forward-thinking activities worldwide, which will be achieved in the framework of the Global Foresight Hub (see http://www.egfar.org/our-work/shaping-future-together/global-foresight-hub).
The survey indicates that universities, government offices and national agricultural research organizations (NAROs) are among the top types of organization having documented forward thinking activities, as illustrated in Figure 3.2.
In the analysis ‘types of organizations by region’, the data show that universities, private sector organizations and government offices were highly represented in Latin America and Europe and North America. Donors and UN Agencies were less represented, mainly in the Caucasus and Near East and Northern Africa regions, as illustrated in Figure 3.3.

Figure 3.3 Types of organizations by region
3.2. Profile of respondents

Respondents were asked to indicate the type of organization (or organizations) they belonged to (Question 1). The majority of respondents indicated that they are affiliated with universities (117 responses), government offices (101 responses) or national research institutes (78 responses), as illustrated in Figure 3.4. Several respondents indicated that while they are affiliated with a university or government office, they are also engaged with consulting companies (private sector). Others indicated affiliation with government and national research organization as in some cases these two types of organizations are understood as belonging together.

Under ‘other types of organizations’, respondents indicated that they are associated with foundations, cooperation agencies, international banks, forums or networks, or are self-employed.

The analyses of the responses for position indicated that the majority of respondents are in senior management positions, as illustrated in Table 3.1.

<table>
<thead>
<tr>
<th>Position</th>
<th>Number Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director; Head; Chairman; Senior Advisor</td>
<td>142</td>
<td>35.6%</td>
</tr>
<tr>
<td>Coordinator; Program Officer; Administrator</td>
<td>105</td>
<td>26.3%</td>
</tr>
<tr>
<td>Professor</td>
<td>68</td>
<td>17.0%</td>
</tr>
<tr>
<td>Researcher</td>
<td>55</td>
<td>13.8%</td>
</tr>
<tr>
<td>Consultant; Retiree</td>
<td>23</td>
<td>5.8%</td>
</tr>
<tr>
<td>Student (PhD, MSc)</td>
<td>5</td>
<td>1.3%</td>
</tr>
<tr>
<td>Farmer</td>
<td>1</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
3.3. Topics reported

The inventory aimed to identify topics which were reported as forward-thinking activities (Question 6). Table 3.2 displays the topics mentioned by respondents, and the frequency with which they were mentioned.

Those topics listed in the survey will be investigated in more details by a team of experts engaged with the Global Foresight Hub of GFAR.

Table 3.2 Forward thinking topics by category

<table>
<thead>
<tr>
<th>Topic Category</th>
<th>Frequency mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural production; production systems; production vs. utilization</td>
<td>137 times</td>
</tr>
<tr>
<td>Market; entrepreneurship; agribusiness</td>
<td>90</td>
</tr>
<tr>
<td>Land use; conservation; rights</td>
<td>85</td>
</tr>
<tr>
<td>Climate change</td>
<td>55</td>
</tr>
<tr>
<td>Food security; food systems</td>
<td>52</td>
</tr>
<tr>
<td>Environmental issues</td>
<td>41</td>
</tr>
<tr>
<td>Farming systems</td>
<td>34</td>
</tr>
<tr>
<td>Water uses &amp; irrigation</td>
<td>34</td>
</tr>
<tr>
<td>Capacity building; capacity development; extension services</td>
<td>34</td>
</tr>
<tr>
<td>Biodiversity; conservation</td>
<td>31</td>
</tr>
<tr>
<td>Agricultural policies; institutional change</td>
<td>26</td>
</tr>
<tr>
<td>Forest management;</td>
<td>23</td>
</tr>
<tr>
<td>Technology development</td>
<td>22</td>
</tr>
<tr>
<td>ICT</td>
<td>19</td>
</tr>
<tr>
<td>Agricultural research</td>
<td>19</td>
</tr>
<tr>
<td>Livestock</td>
<td>19</td>
</tr>
<tr>
<td>Energy</td>
<td>16</td>
</tr>
<tr>
<td>Innovation systems; innovation</td>
<td>15</td>
</tr>
<tr>
<td>Future of agriculture in general</td>
<td>15</td>
</tr>
<tr>
<td>Rural development in general</td>
<td>13</td>
</tr>
<tr>
<td>Improving livelihoods; poverty reduction</td>
<td>13</td>
</tr>
<tr>
<td>Partnerships; networks</td>
<td>12</td>
</tr>
<tr>
<td>Gender</td>
<td>11</td>
</tr>
<tr>
<td>Organic agriculture</td>
<td>10</td>
</tr>
<tr>
<td>Seed systems and production</td>
<td>9</td>
</tr>
<tr>
<td>Indigenous knowledge and traditions</td>
<td>8</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>7</td>
</tr>
<tr>
<td>Pest and diseases management</td>
<td>5</td>
</tr>
<tr>
<td>Food &amp; Health</td>
<td>5</td>
</tr>
<tr>
<td>Monitoring and evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Multiple use systems</td>
<td>2</td>
</tr>
<tr>
<td>Intellectual property rights</td>
<td>2</td>
</tr>
<tr>
<td>School feeding</td>
<td>2</td>
</tr>
<tr>
<td>International investment</td>
<td>1</td>
</tr>
</tbody>
</table>
4. Additional individuals and organizations engaged in foresight activities

In order to identify as many people as possible who are engaged in foresight activities, respondents to the questionnaire were asked to share names, emails and/or references of any people or organizations whom they may know who have engaged in foresight activities (Question 7).

A total of 302 respondents provided a response to this question, sharing 735 names, emails and links to organizations. These additional people were later incorporated into the survey process and survey links were sent.

5. Reference to the CGIAR

The inventory temporarily excluded the CGIAR staff from the survey as the CGIAR Consortium Office had planned to develop an inventory of the activities conducted by the centers and CGIAR research programs (CRPs). Respondents to the survey mentioned few CGIAR Centers and researchers as a reference for doing forward thinking in agriculture and rural development.

The CGIAR Centers mentioned in any of the two questions were IFPRI, CIAT, CIP, ICRAF, IWMI, IRRI, ICRISAT, ICARDA, IITA and Bioversity International, in addition to the Independent Science and Partnership Council of the CGIAR.

6. Further activities

The survey collected a large amount of information for immediate use, but also collected information that will be useful for further investigation. This section of the report indicates the information collected in the first phase of the inventory (eight questions of the questionnaire and internet search) that will be followed up for additional information in preparation for the GCARD 2012 foresight sessions.

6.1. Internet search on foresight activities

For seven weeks, a group of five young professionals engaged in MSc and PhD studies were assigned to search the internet for publications and experts on foresight and organizations engaged in foresight activities, in Chinese, English, Arabic, French, Portuguese and Spanish. More resources are needed to continue the search but the preliminary information shows that most documentation on foresight or forward-thinking activities is not publicly available in electronic format. Instead, what was found are isolated events and discussions about the future of agriculture in general terms. The preliminary information found is presented in Annex 6 and will be analyzed in the coming months.

6.2. Analysis of foresight documentation collected through survey and internet search

This activity was initiated after the survey was closed. A group of foresight experts, linked to GFAR, will read and categorize the documents as ‘not foresight’, ‘not applicable’ (based on the criteria for being in agriculture, developed in the past five years, and forward looking in the coming 10 to 20 years) and ‘foresight’ for those documents which satisfied all three criteria.
6.3. Write workshops with authors of foresight documents

Prior to GCARD 2012, GFAR will organize a series of write workshops to help authors of selected foresight documents to synthesize their work so that it can be presented at GCARD 2012. The workshops will take place in different languages and regions, to provide an opportunity for learning and sharing.
Annexes

Annex 1: Geographical regions

Asia and Pacific (A&P): Australia; Bangladesh; Bhutan; China; Fiji; Hong Kong; India; Indonesia; Japan; Malaysia; Nepal; New Zealand; Pakistan; Papua New Guinea; Philippines; Republic of Korea; Samoa; Singapore; Sri Lanka; Taiwan; Thailand; Vanuatu; Viet Nam

Caucasus (CAC): Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Tajikistan; Turkmenistan; Uzbekistan

Europe and North America (EU&NA): Austria; Belgium; Canada; Czech Republic; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Netherlands; Portugal; Russian Federation; Slovenia; Spain; Sweden; Switzerland; Ukraine; United Kingdom; United States of America

Latin America and the Caribbean (LAC): Antigua and Barbuda; Argentina; Bahamas; Barbados; Belize; Bolivia; Brazil; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Nicaragua; Panama; Paraguay; Peru; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; United States Virgin Islands; Uruguay; Venezuela (Bolivarian Republic of)

Near East and Northern Africa (NENA): Algeria; Bahrain; Cyprus; Djibouti; Egypt; Iran (Islamic Republic of); Iraq; Israel; Jordan; Kuwait; Lebanon; Libyan Arab Jamahiriya; Mauritania; Mauritius; Morocco; Oman; Qatar; Saudi Arabia; Somalia; Sudan; Syrian Arab Republic; Tunisia; Turkey; United Arab Emirates; Yemen

Sub-Saharan Africa (SSA): Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo; Côte d'Ivoire; Democratic Republic of the Congo; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; South Africa; Swaziland; Togo; Uganda; United Republic of Tanzania; Zambia; Zimbabwe

Annex 2: Announcement of the foresight inventory

Inventory of Forward Thinking in Agriculture and Rural Development

Dear Colleagues,

Through the Global Forum on Agricultural Research (GFAR), an inventory by means of electronic media is now being launched. This inventory aims to identify and record forward-thinking activities that have been developed, in a systematic and documented way, on issues related to agriculture, rural development and farming systems for the next 10-20 years.

This inventory should help identify a) individuals and organizations that are or have recently been engaged in such forward-thinking activities and b) what future scenarios were envisaged. It is open to anyone who has engaged in this type of activity over the past five years. It is produced in seven languages (Arabic, Chinese, English, French, Portuguese, Russian and Spanish) to provide an opportunity for more people to participate.
The objectives of this inventory are to inform: i) whether and how these activities have helped to change the research and innovation in agriculture and rural development and ii) what the major challenges are for the future.

This inventory will contribute to the operation of the Global Foresight Hub which will enable all those engaged in forward thinking to share experiences, advances, to exchange with others on tools and methods, and to get linked with decision makers (see http://www.egfar.org).

Your participation in the implementation of this inventory is thus an opportunity for you to share your work, your publications and interact with other professionals who share your interests.

We ask that you fill out this short questionnaire (it takes less than five minutes).

The link to it is:

This link is uniquely tied to this questionnaire and your email address. Please do not forward this message. Alternatively, you can share the questionnaire links below with your colleagues and network, to help strengthen the Global Foresight Hub and make it even more open and inclusive.

Please select the link in your preferred language.

http://www.surveymonkey.com/s/Foresight_Agriculture_English (English)
http://www.surveymonkey.com/s/Futuro_Agricultura_Portugues (Portugues)
http://www.surveymonkey.com/s/futuro_agricultura_Espanol (Spanish)
http://www.surveymonkey.com/s/future_agriculture_Arabic (Arabic)
http://www.surveymonkey.com/s/Foresight_Agriculture_French (French)
http://www.surveymonkey.com/s/Foresight_Agriculture_Russian (Russian)
http://www.surveymonkey.com/s/Foresight_Agriculture_Chinese (Chinese)

The survey link is accessible from 07 December 2011 to 31 January 2012. We will share the results of this survey with all respondents.

Thanks for your participation!

Please note: If you do not wish to receive further emails from us, please click the link below, and you will automatically be removed from our mailing list.

Annex 3: Inventory questionnaire

The form you are about to fill-in asks some individual and professional questions, about your affiliation, your engagement in forward-thinking activities and resources you can share in this regard. All personal information, like your name or email, will not be disclosed without your written permission. A report with the findings of this survey will be prepared and shared with you.

Q1. Please indicate what type of organization you belong to (more than one answer is allowed)
At this stage, we are trying to identify organizations that have developed forward-thinking activities about the future of agriculture, rural development, or farming systems or about their own future for the next 20 years.

Q2. In the last 5 years, has your organization anticipated/explored the future evolution of, or future challenges in agriculture or rural development in the next 20 years?

Yes
No

Q3. Have the outcomes of these activities been documented (i.e., a report, a memo, a blog, etc.)?

Yes
No

Q4. If yes, would you allow us to access them?

Yes
No

If yes, how could we access these documents? You could send the documents to us by email (c.sette@cgiar.org) or share the website link.

Q5. Have you personally done any systematic work in the last 5 years to anticipate/explore the future evolution of agriculture, rural development or farming systems?

Yes
No

Q6. If yes, what issues or topics were discussed? (e.g. farming systems of the future, land-use change patterns, linkages between production and utilization or agricultural products, etc.)

Q7. Please could you share with us names, emails, and/or references of any people or organizations you know who have engaged in these types of activities? Thanks in advance.

Q8. Please, let us know who you are. By providing this information, we will be able to further interact with you and send you the final report of this inventory.

Full name
Annex 4: Documents reviewed


Danilo C. Cardenas (2007) *Scientific Milestones in the Agricultural Development of Asia and the Pacific Region (PPT)*

Danilo C. Cardenas (2007) *Scientific Milestones in the Agricultural Development of Asia and the Pacific Region*. Presentation at the 2007 CGIAR Annual General Meeting, Beijing, China


Dirk Troskie (2010) *The Western Cape’s Agricultural Export Strategy: Time For A Re-Evaluation?*

Dirk Troskie (2011) *When the World’s Population Stops Growing*

Enzo Benech, Mario García, José Bonica, Alvaro Bentancur, Rodolfo M. Irigoyen, Mario Costa (2011) *Plan Estratégico Institucional 2011 – 2015 Comprometidos con la construcción del Uruguay agrointeligente*

Giuseppe Di Giulio, Godelieve Lynen, Subhash Morzaria, Chris Oura, Richard Bishop, (n.b.) *Live immunization against East Coast fever --- current status* (Abstract)


Kym Anderson (2010) *Globalization’s effects on world agricultural trade, 1960-2050* (Journal article)


Kym Anderson and Signe Nelgen (2011) *What’s the Appropriate Agricultural Protection Counterfactual for Trade Analysis?*

Participatory Ecological Land Use Management (PELUM) Association PELUM Kenya - 2010 – 2014 STRATEGIC PLAN - Facilitating Learning and Networking in Kenya
Philippine Agriculture (PA) 2020 (n.d.) Abstract


The South African Agricultural Baseline BUREAU FOR FOOD AND AGRICULTURAL POLICY 2011


Weishuang Qu, Tong Hefeng, Zhang Xu (2009) Future Grain Production Based on T21 China Model proceedings of 2009 conference on system science, management science & system dynamics vol.5


Hawkins, R., W. Heemskerk, R. Booth, J. Daane, A. Maatman and A. A. Adekunle, 2009: Recherche Agricole Intégrée pour le Développement. Une note conceptuelle pour le Forum


investigación, la innovación y el desarrollo.


Maurício Palma Nogueira (2011) Pecuária de corte: Mercado e perspectivas. Presentation at Tecnoshow Comigo, Rio Verde, Brazil

www.cirad.fr/content/download/4595/42828/.../Perspective06.pdf

Christian Hoste and Bernard Hubert (2011) The “Forward Thinking Initiative” in Agriculture and Food”. Presentation at SCAR Conference, 4 – 5 May 2011

Annex 5: Organization’s web links examined
http://pelum.net/
http://africannematology.info/aboutus.asp
http://asb.cgiar.org/content/scenarios-project
http://asb.cgiar.org/drupal/content/scenarios-project-case-studies
http://bio.albertainnovates.ca/
http://comercializacionagricola.blogspot.com
http://cta.esmarthosting.net/cgi-bin/pubs.pl?action=display&bookID=1068
http://dl.dropbox.com/u/41671158/El%20sector%20papa%20en%20la%20regi%C3%B3n%20andina.pdf
http://dx.doi.org/10.1016/j.biombioe.2011.04.035
http://dx.doi.org/10.1038/nclimate1179
http://dx.doi.org/10.1111/j.1466-8238.2011.00678.x
http://www.papasnativasdechiloe.cl
http://www.paris.inra.fr/prospective
http://www.pca.da.gov.ph/
http://www.planthealthaustralia.com.au
http://www.pnas.org/cgi/doi/10.1073/pnas.1015078108
http://www.pnas.org/content/early/2011/05/10/1012878108
http://www.politecnicojic.edu.co
http://www.ppath.cornell.edu/iipmweb/soil_health_guide_spanish.htm
http://www.procisur.org.uy
http://www.progamaacunar.com
http://www.proinpa.org
http://www.quae.com/fr/r274-agrimonde.html
http://www.redagres.org
http://www.rediex.gov.py
http://www.Regoverningmarkets.org
http://www.researchintouse.com
http://www.ruforum.org
http://www.sadc.int/fanr
http://www.safrasecifras.com.br
http://www.santafe.gov.ar
http://www.sciencecouncil.cgiar.org/
http://www.senado.gov.br/senado/conleg/Agenda_legislativa/Capitulo_2_Fernando_Lagares.pdf
Annex 6: Additional foresight information from internet search


Arab Organization for Agricultural Development, المساعدة العربية الزراعية التنمية الاستراتيجية “Strategy for Sustainable Arab Agricultural Development for the Upcoming Two Decades” (http://www.aoad.org/strategy/summary.htm)


Gutierrez, F. C. 2005. “Reseña de ‘The Future of Rural Policy. From Sectoral to Place-Based Policies in Rural Areas’ de VV.AA.” Ager (Zaragoza, Spain).


Washington State Department of Agriculture, “The Future of Farming Strategic Plan for Washington Agriculture, 2020 and Beyond” strategic plan


<table>
<thead>
<tr>
<th><strong>Organization which published information on foresight</strong></th>
<th><strong>Link or Email</strong></th>
<th><strong>Country</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Business and Industry Advisory Committee to the OECD</td>
<td><a href="http://www.biac.org/">http://www.biac.org/</a></td>
<td>France</td>
</tr>
<tr>
<td>GTZ, Oliver Hanschke, Tel: +49 6196 793293</td>
<td><a href="mailto:future-of-agriculture@gtz.de">future-of-agriculture@gtz.de</a></td>
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<td>NOBEL foundation for agriculture</td>
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<tr>
<td>Arab Organization of Agricultural Development</td>
<td><a href="http://www.aoad.org">www.aoad.org</a></td>
<td>Egypt</td>
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<tr>
<td>Faculty of Agricultural and Food sciences American University of Beirut</td>
<td><a href="mailto:shamadeh@aub.edu.lb">shamadeh@aub.edu.lb</a></td>
<td>Lebanon</td>
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<td>Regional Centre for Agrarian Reform and Development for the Near East (CARDNE)</td>
<td><a href="http://www.cardne.org">www.cardne.org</a></td>
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<tr>
<td>Centre for Sustainable Development</td>
<td><a href="http://www.cenesta.org">www.cenesta.org</a></td>
<td>Iran</td>
</tr>
<tr>
<td>Community and Institutional Development (CID)</td>
<td><a href="http://www.cid.com.eg">www.cid.com.eg</a></td>
<td>Egypt</td>
</tr>
<tr>
<td>Rural Development Studies &amp; Research Center</td>
<td><a href="mailto:mnawar@excite.com">mnawar@excite.com</a></td>
<td>Egypt</td>
</tr>
</tbody>
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