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COMMITTEE ON AGRICULTURE

Twenty-second Session

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Programme Implementation 2008-09

I. Introduction

1. At its 21st Session in April 2009, the Committee was able to consider the Organization's achievements in the previous biennium (2006-07) – in areas falling under COAG's mandate – via the corporate Programme Implementation Report (PIR) 2006-07. As regards programme implementation in the 2008-09 biennium, the advanced timing of the present COAG session, in the first half of the first year of the biennium, takes place while the PIR 2008-09 is still under preparation.

2. Anticipating on the contents of the corporate PIR 2008-09, the present information document has been prepared to provide the Committee with summaries of achievements under the applicable programmes, based on the structure of the Programme of Work and Budget 2008-09, in *Chapter 2 Sustainable Food and Agriculture Systems*, and *Chapter 3 Knowledge Exchange, Policy and Advocacy* . The Committee may wish take note of the information and provide any comments on implementation.

3. In the PIR 2008-09, to be published in August 2010 for consideration by the Programme and Finance Committees, Council and Conference, these summaries of achievements (as well as similar ones for all other PWB programmes) will be complemented by additional information pertinent to accountability and implementation reporting (i.e. resources and status of completion of planned PWB outputs).

II. Overview of achievements in the 2008-09 biennium relating to COAG's mandate

CHAPTER 2: SUSTAINABLE FOOD AND AGRICULTURAL SYSTEMS

Programme 2A: Crop production systems management

4. As regards *genetic resources*, the Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture was published and endorsed at the 12th Session of the Commission on Genetic Resources for Food and Agriculture (CGRFA, October 2009). It will assist countries in prioritising activities related to the conservation and use of plant genetic resources and implementing the Global Plan of Action, the International Treaty and multiyear programme of work endorsed by the CGRFA. A number of international meetings were organized, including the World Seed Congress; in addition several publications and advocacy materials were issued. A substantial portfolio of capacity building projects was formulated and operated during the biennium, mainly in Africa. Another major achievement was the harmonization of seed laws and regulations for the 15 member countries of the Economic Community of West African States (ECOWAS) which will facilitate seed trade and strengthening technical capacities for development of a regional seed industry. The main lesson learnt was the need adopt a holistic approach to the development of seed systems in order to address better local needs and preparedness.

5. With respect to the *International Treaty on Plant Genetic Resources for Food and Agriculture*, the 3rd Session of the Governing Body was held in June 2009, and a key outcome was the adoption of Procedures for the Operation of the Third Party Beneficiary, subsequently approved by the FAO Council. The Strategic Plan (2009-2014) for the implementation of the Benefit-sharing Fund has the objective - among others - to raise USD 116 million. The establishment of a joint capacity building programme between FAO and Bioversity International will facilitate responding to requests from Parties for assistance in the implementation of the Treaty. Rapid progress has been made in the implementation of the Multilateral System, in part as a result of 11 projects being supported through the Benefit-sharing Fund. To date, more than one million accessions of genetic material have been included, and more than 600 transfers of genetic material occur every day using the Standard Material Transfer Agreement.

6. FAO, in cooperation with the International Potato Centre, implemented the *International Year of the Potato* in 2008. FAO co-organized the first All Africa Horticulture Congress, and with the International Fund for Agricultural Development (IFAD) co-hosted an international consultation on jatropha development. As a result of the experience gained, key elements required to sustain urban and peri-urban horticulture were identified, to be used as the basis for developing further projects.

7. The application of ecosystem approaches to enhancing the *sustainable intensification of crop production* was promoted through a brochure: "Increasing crop production sustainably". A framework for sustainable intensification, consisting of a package of options for decision makers at local national and international levels, has been developed through an iterative process. It will enable the crop sector to increase production and manage ecosystem services, including pollination, soil quality, carbon sequestration and agricultural biodiversity through a broad range of approaches including conservation agriculture (CA), integrated pest management (IPM) and precision agriculture. Other work related to CA included: an expert consultation on Soil Health (July 2008), participation in the IV World Congress on CA (Feb. 2009) and in an international conference for CA in Central Asia (July 2009), and creation of an internet-based "community of practice".

8. The role of grasslands in carbon sequestration and mitigating the effects of climate change was the subject of a workshop which led to the creation of a Carbon Grassland Group. The workshop also served as a basis for defining a programme of work related to sustainable

crop/livestock intensification. Inputs to the ad-hoc Working Group on long term cooperative action (part of the sixth session of the United Nations Framework Convention on Climate Change in June 2009) included a technical document, as well as a side event on the potential of grasslands to contribute to greenhouse gas (GHG) mitigation. A website for Global Action on Pollination Services for Sustainable Agriculture was also launched in October 2009. Geographic Information System (GIS) based maps and training material for country partners to develop participatory maps in support of pollination management plans, have been developed. A review of climate change impacts on pollinators identified the information needed to assess national vulnerabilities.

Programme 2B: Livestock production systems management

9. The main focus was to support countries in increasing the contributions of their livestock sectors to economic growth and poverty reduction, through increasing livestock productivity (production efficiency). For instance, 26 country poultry sector profiles, along with 45 technical papers on different aspects of poultry production, have been prepared. Two major reports on bio-security were issued. Four country case studies in dairying have been published along with a book on milk payments, while preparatory work was initiated for a major report on milk and human nutrition. As animal welfare is getting greater attention, following an expert consultation on the subject, an interactive portal 'Gateway to Animal Welfare' was developed, and a series of practical guidelines prepared.

10. Work on a major manual on the design of small- to medium- scale abattoirs was initiated in 2009 (to be completed in 2010). Work was also initiated on a Feed Initiative, including an expert consultation and fostering effective dialogue among feed regulators and the feed industry. A major feed manual was prepared with the International Feed Industry Federation (IFIF). The development of Livestock Emergency Guidelines and Standards (LEGS) was undertaken with several partners.

11. Following the adoption of the Global Plan of Action for Animal Genetic Resources, the State of the World's Animal Genetic Resources for Food and Agriculture and the Global Plan of Action were widely distributed in all official languages. Breeding strategies for sustainable management of animal genetic resources were endorsed by the CGRFA. Recognizing the important role of small-scale livestock keepers, particularly in developing countries, as custodians of most of the world's animal genetic resources, a publication: 'Livestock Keepers – guardians of biodiversity' was issued. The Domestic Animal Diversity Information System (DAD-IS) continued to be developed as a user-friendly reporting and monitoring tool for countries (currently covering 13900 national breed populations) and with geo-referenced descriptions of breeds' distributions and production environments to serve planning and future modelling. More than 50 countries were supported through nuclear techniques in the genetic characterization of poultry, pigs and small ruminants, and genetic improvement of dairy cattle. More than 20 regional capacity building workshops on technical and policy issues were held.

Programme 2C: Diseases and pests of animals and plants

12. Technical support was provided to 25 countries (essentially through extrabudgetary projects) for improved *pesticides* legislation and management. Significant progress was also made in reducing risks from obsolete pesticides in 9 African countries, as well as Syria, Paraguay and Bolivia. This life-cycle approach to pesticide management included promoting ratification of the Rotterdam Convention, with the result that a further 10 countries ratified the Convention in 2008-09, bringing the total number of Parties to 131. The joint FAO/UNEP Secretariat provided direct technical assistance to more than 55 countries in the implementation of the Convention and advice on integrating the Convention into national programmes on pesticide management.

13. In 2008, a further pesticide was listed in Annex III of the Convention making a total of 40 chemicals subject to the Prior Informed Consent (PIC) procedure, while a further three have been recommended for listing. Technical specifications for 53 pesticide formulations were developed and Maximum Residue Limits for 68 pesticides were evaluated in collaboration with the World

Health Organization (WHO). In addition, four new technical guidelines on aspects of the International Code of Conduct on the Distribution and Use of Pesticides have been issued. IPM strategies were further supported in several regions.

14. The Secretariat to the *International Plant Protection Convention (IPPC)* convened two sessions of the Commission on Phytosanitary Measures, at which a total of 13 International Standards on Phytosanitary Measures (ISPMs) were adopted. The Secretariat worked closely with the Convention on Biodiversity, the Standards and Trade Development Facility and other partners to improve protection of plant biodiversity from pests and minimize the introduction of new invasive plant species. A total of 45 training sessions and workshops were convened, aimed at facilitating information exchange, strengthening phytosanitary capacity evaluation and pest risk analysis, as well as the review and implementation of ISPMs.

15. Requests from countries and partners to apply the sterile insect technique (SIT) for the control of different insect pests were met, including technical support to projects in Africa, Latin America and Asia. For instance, the Mexican Government announced the eradication of the invasive cactus moth (*Cactoblastis cactorum*) in the Mexican Caribbean and fruit fly pests were eradicated from two provinces in southern Peru, while two areas in Panama were officially declared medfly-free, opening up profitable export markets. A private sector sterile moth SIT company with a mass rearing facility was established in South Africa. Mutant breeding has been used to enhance crop productivity through the release of 41 mutant varieties of 13 crop species in more than 10 countries.

16. Following the principles of emergency prevention as an integral part of the Food Chain Crisis Management Framework (FCC), the *plant protection component of EMPRES* continued work on advocacy, early warning/detection, contingency planning and promoting environmentally sound control technologies. The experience gained on desert locust activities has been applied to other locust species, as well as an increasing number of other transboundary pests. The Desert Locust Information Service (DLIS) continued daily monitoring of environmental conditions and desert locust situations, providing early warning, forecasts, alerts and situation bulletins to countries. Numerous workshops, regional and national training courses were conducted on data management systems, advanced locust monitoring and reporting technologies and testing of new spray equipment. A noteworthy achievement was the establishment of autonomous Desert Locust Centres in 2009 in key countries (Chad, Niger, Mali and Mauritania). As a tangible outcome, the national authorities in Mauritania succeeded in responding rapidly and effectively to a locust outbreak in the autumn of 2009. Working in cooperation with the International Red Locust Control Organization for Central and Southern Africa (IRLCO-CSA) FAO also successfully responded to an upsurge of red locusts in Tanzania, Malawi and Mozambique in the period mid-2008 to early 2009.

17. A comprehensive analysis of control capacities for three economically important locust species in the countries of the Caucasus and Central Asia was completed, with the affected countries endorsing a Five-year Programme to improve national and regional locust management. The use of bio-pesticides in locust control also increased. Countries are encouraged to register and use bio-pesticides in ecological vulnerable areas and for preventive control.

18. Work on other *transboundary plant pests* related to the wheat rust, as well as diseases of banana and cassava. In 2008, FAO launched the Wheat Rust Disease Global Programme in response to the emerging threat of new virulent races of wheat rust to which some 80 percent of global wheat cultivars are susceptible. Training was provided in wheat rust analysis and screening, as well as in the fast-track release and seed multiplication of resistant varieties. A Global Cereal Rust Monitoring System was initiated in April 2009, with countries sharing standardized field surveillance data. FAO worked closely with the Southern African Development Council, International Institute of Tropical Agriculture, and Bioversity International to address the emergence and spread of two major diseases of banana in Africa. It supported survey and diagnosis training for these diseases in pilot countries and completed two food security

assessment and socio-economic studies on their impact and associated risks. Also in 2009, working with a range of partners, FAO developed a regional strategy for two of the main diseases of cassava in 15 countries of central, eastern and southern Africa.

19. In response to the armyworm and achaea outbreaks in Côte d'Ivoire, Liberia, Guinea and Ghana in early 2009, which raised concerns across the region about their potential impact on livelihoods, food security and human health, a subregional workshop was convened to address transboundary plant pest issues in West Africa in a more holistic and systematic manner. The workshop led to specific programme proposals for support by the international community.

20. Regarding livestock diseases, substantial extra budgetary support was obtained for addressing the *Highly Pathogenic Avian Influenza* crisis. A Global Strategy for Highly Pathogenic Influenza was developed, endorsed and co-published with the World Organisation for Animal Health (OIE). An FAO/OIE Joint Committee for *Global Rinderpest Eradication* was established to advise in anticipation of the global declaration of rinderpest freedom in mid-2011. A Progressive Control Pathway approach has been developed for Foot-and-Mouth Disease which can be extended to other diseases. Support also continued to programmes to control vector borne diseases, including trypanosomiasis (PAAT).

21. Technical support was provided to strengthen national veterinary services and animal health systems, including animal quarantine and import requirements, vaccine production, and reference laboratories, while the expansion of global Veterinary Public Health networks was sought. Early diagnosis/confirmation of new outbreaks of Transboundary Animal Diseases (TADs) was supported with the development of the GLEWS platform to enhance disease intelligence, early warning and risk communication in partnership with OIE and WHO. Other significant activities were the monitoring of the livestock-wildlife interface and the establishment of the Crisis Management Centre in Rome. Socio-economic impact studies were undertaken for peste des petits ruminants (PPR) and highly pathogenic avian influenza, including advice on compensation strategies for countries affected, or at risk.

Programme 2D: Nutrition and consumer protection

22. The Cross-cutting *Initiative on Biodiversity for Food and Nutrition* highlighted the links between agriculture, health and the environment. FAO advocated the food chain approach to look at food quality and safety as well as nutritional aspects, ensuring that crop and animal production effectively take into account the nutritional needs of the populations, while promoting sustainable diets. Publications and technical papers were prepared on the impact of climate change and bioenergy on nutrition and the role that the agriculture and food sectors play in closing the nutrition gap, improving dietary diversity and enhancing nutritional status.

23. Other outputs included guidelines and enquiry tools for strengthening national capacities for improved food security and nutrition (e.g. dealing with "fortification of food: role and position of FAO"; four documents to serve incorporating food security, nutrition and livelihood objectives into development assistance frameworks and community action processes). Food-based approaches for diversifying diets and combating micronutrient deficiencies were actively promoted. Preparatory work took place towards the establishment of a High Level Panel of Experts on Food Security and Nutrition (HLPE-FSN) as part of the reform of the Committee on World Food Security (CFS) and the operation of EMPRES-Food Chain, with its three components (animal health, plant health and food safety).

24. Simple and standardized tools for dietary assessment, including the household food insecurity access scale and the dietary diversity questionnaire that look at both dietary quantity and quality, are gaining wider acceptance and have been integrated in many surveys and projects, while support was provided to countries and local and national institutions for using them. With regards to key partnerships, FAO took part in: the revival of the UN Standing Committee on Nutrition (SCN), an important inter-agency coordination mechanism regarding nutrition policies, programmes and tools; the joint FAO/WHO/WFP/UNICEF initiative on Renewed Effort against

Child Hunger (REACH) and the Inter-Agency Standing Committee (IASC) Global Nutrition Cluster on nutrition in emergencies.

25. Direct technical assistance in *nutrition education*, communication and garden-based learning projects and initiatives was provided to nearly 30 countries. Print and web-based education and technical materials and guidelines were disseminated (including through the "Feeding Minds Fighting Hunger" website) to increase awareness about the importance of healthy diets and to strengthen national food and nutrition education strategies and programmes. Publications included: "Educating Consumers to Cope with High Food Prices"; "Innovations in Food Labelling"; the "Family Nutrition Guide"; the "School Garden Teaching Toolkit", which accompanies the popular FAO manual "Setting Up and Running a School Garden".

26. A 12-module distance learning course on *food composition* was developed and tested and is now widely used, while national and regional food composition databases were updated. An expert consultation on fats and fatty acids in human nutrition was conducted in collaboration with WHO, and scientific advice on nutrition was provided to Codex Committees and individual countries or regions.

27. The *Codex Alimentarius Commission* adopted 73 new or revised Codex standards or related texts, including those related to codes of hygienic practices, guidelines for food safety assessment and assurance programmes, as well as a number of maximum limits for food additives and contaminants and maximum residue limits for pesticides and veterinary drugs. Risk-analysis policies were developed for subsidiary bodies dealing with food safety. New areas of work included the control of viruses in food and risk analysis of food borne antimicrobial resistance. The Commission agreed on a number of recommendations to improve the participation of developing countries, especially as regards capacity building and the Codex Trust Fund.

28. Technical reports were released, including those of the Joint FAO/WHO Expert Committee on Food Additives (JECFA), on microbiological risk assessment (JEMRA), on the potential food safety implications of the use of nanotechnologies, and the assessment of benefits and risks of the use of "active chlorine" in food processing, leading to standards, guidelines and recommendations for improving food control programmes. Funds made available by the Global Initiative for Food-related Scientific Advice (GIFSA) facilitated the collection and analysis of national and regional scientific data.

29. As regards *food safety and control*, FAO provided technical assistance to over 75 countries in respect of food control regulations and management, including regulatory policy development, risk assessment and good hygienic practice by food operators at all stages of the food chain, complemented by training at sub-regional, regional and international food safety events. This led to much strengthened systems of food inspection and food laboratories and increased use of the risk analysis framework in support of national food safety decision-making. A range of food safety training tools, manuals and publications were issued covering: food safety risk analysis, GM food safety assessment, risk-based food inspection, risk-based fish inspection, and food quality linked to geographical origin. Work on related tools included: food safety emergency response guidelines, a toolkit for practical training in food risk analysis and food sampling, a manual on imported food control, and updated training materials on food safety management for small scale businesses.

30. With respect to the use of nuclear techniques, achievements included: the adoption of eight irradiation phytosanitary treatments for inclusion under the IPPC standards; continued development of additional treatments under the coordinated research project on generic irradiation doses for quarantine treatments; participation in revisions to the International Atomic Energy Agency (IAEA) Basic Safety Standards. It may be noted that more than 90 countries have been assisted to increase their capability to apply quality controlled analytical techniques to monitor and control chemical residues in food and the environment, thereby helping to protect consumer health and meet food safety requirements to facilitate international trade. Also, more than 16

countries worked with the Joint FAO/IAEA Division on the feasibility of post-harvest irradiation for phytosanitary purposes.

Programme 2K: Sustainable natural resources management

31. In the area of *Land Tenure, Agrarian Reform and Access to Natural Resources*, work was initiated on Voluntary Guidelines to set out principles and internationally accepted practices for responsible governance of tenure aspects and other natural resources. Consultative meetings were held to identify issues to be considered in drafting the Guidelines. Trust fund support was obtained to organize additional regional and civil society consultations and to further drafting during 2010-11. The large scale acquisition by investor countries of land in other countries for biofuel and food production gained international prominence during the biennium. FAO, together with IFAD, World Bank and the International Institute for Environment and Development (IIED), addressed the implications of such investments on access to land by rural people and their livelihoods in concerned countries. Guidelines were issued in relation to public schemes for acquisition of land and compensation, in collaboration with the World Bank, UN-HABITAT, and the International Federation of Surveyors. FAO and UN-HABITAT, as part of the Natural Disasters Initiative under the Inter-Agency Standing Committee for coordination of humanitarian assistance, compiled a set of national briefs and case studies to raise awareness of the need to address land tenure when responding to natural disasters. Guidelines were prepared on participatory land delimitation. A framework was developed (and extra-budgetary resources obtained) for the application of open source software in the maintenance of cadastre and registration systems in developing countries. Land tenure and land administration continued to be a major area of collaboration with the World Bank and other financing partners, and technical assistance was provided to a large number of countries.

32. FAO pursued its systematic approach to assist global collaborative efforts for the conservation and sustainable utilization of all components of biological diversity, including plant, animal, fish, forest, microbial and invertebrate genetic resources relevant to food and agriculture. The CGRFA, at its 13th Regular Session, implemented all outputs and milestones foreseen in its Multi-Year Programme of Work. The Commission considered in detail the on-going negotiations on access and benefit-sharing and prepared the ground for FAO Conference Resolution 18/2009 on "Policies and arrangements for access and benefit-sharing for genetic resources for food and agriculture". Finally, the Commission established another intergovernmental technical working group to deal with forest genetic resources, complementing the existing ones on plant and animal genetic resources. This group will help particularly with the preparation of the first ever report on The State of the World's Forest Genetic Resources.

33. In the area of "*Agricultural Water Use Efficiency, Quality and Conservation"*, AquaCrop, the FAO model to simulate yield response to water of all major herbaceous crops was released. It is suited to address conditions where water is a key limiting factor to crop production or for making yield predictions under variable climate change scenarios. The guidelines on: "Modernizing Irrigation Management – Mapping System and Services for Canal Operation Technique (MASSCOTE)" are to complement AquaCrop, addressing "Pressurized Irrigation Systems", as well as "Multiple Use of Water" situations. This tool has been adopted by several provinces in China and some states of India for appraisal purposes in the framework of investment plans for irrigation modernization, while the World Bank has been promoting its use in other countries in Asia. Furthermore, guidelines on: "Planning and Design of Land Drainage Systems" and "Safe use of Waste Water in Agriculture" were prepared in partnership with WHO. These tools or products will require follow-up and capacity building to ensure wide adoption and use by various stakeholders.

34. During 2008-09, an integrated and multi-stakeholder approach to the development and sustainable management of land and water resources was promoted, taking account of the demands of expanding rural and urban populations on land and water resources. Special emphasis was given to the management of fragile ecosystems, including wetlands, and to methods for soil

moisture conservation and increased resilience to climate variability in rainfed agriculture with focus on drought mitigation. Aquifer recharge, and the impact of climate change on land and water resources, were further investigated. FAO continued to host the LADA programme (Land Degradation Assessments in Drylands) funded by the Global Environmental Facility (GEF), which produced land evaluation and planning guidance, and supported work on the World Conservation catalogue (WOCAT), a database of best practices in soil and water conservation. In addition, the feasibility of national-level strategies for payment for environmental services in land and water management was assessed. In 2009, preparatory work began on the State of the World report on Land and Water (SOLAW), in collaboration with leading institutions in the fields of land and water resources.

35. In 2008, the Harmonized World Soil Database was launched (in collaboration with four major partners: European Union (EU), International Institute for Applied Systems Analysis (IIASA), International Soil Reference and Information Centre (ISRIC) and Chinese Academy). This is an improved version of the long-standing FAO/UNESCO digital soil map of the world. Significant progress was also made in the update of the Global Agro-ecological Zones study. The global sub-national land use database (Agro-Maps) was expanded and a Global Land Use System map established on-line. Water Report 34: "Irrigation in the Middle East Region in Figures: AQUASTAT Survey 2008" was issued. Inputs were provided to: "The resources outlook to 2050", prepared for the FAO World Summit on Food Security held in 2009, the UN-Water's World Water Development Report 3, the session on data information and integration of World Water Forum 5, and the preparation of the International Recommendations for Water Statistics (IRWS). In collaboration with the Center for Arab Women Training and Research (CAWTAR), pilot studies were undertaken in Algeria, Morocco and Tunisia, to improve the collection, analysis and dissemination of gender disaggregated data. Capacity building for water monitoring and water statistics took place within the framework of the World Census on Agriculture 2010.

36. Over the biennium, the Global Terrestrial Observing System (GTOS) has pursued advocacy for improvements in quality and coverage of systematic Earth observations, actively supporting the GEO/GEOSS process. GTOS supported FAO's programmes dealing with natural resources through land cover monitoring, fire monitoring and other related information products. The Global Land Cover Network (GLCN) focused on the application of standards and harmonized land cover classification systems and databases.

37. *Livestock-related* activities under this programme contributed to three significant publications on livestock sector analysis, policies and the environment: the 2009 State of Food and Agriculture (SOFA) entitled "Livestock in the balance", and two volumes of the "Livestock in Changing Landscape – Drivers, Consequences and Responses" and "Livestock in Changing Landscape – Experiences and Regional Perspectives". A technical report on GHG emissions in the dairy sector is to contribute to a larger forthcoming publication on possible options to develop a low GHG emission livestock sector. Parallel to this analytical work, pilot projects have been supported to gain direct knowledge about public goods issues in the livestock sector, to test novel improvement options, and to address climate change mitigation.

38. With regards to *bioenergy*, work included: technical documents for the 2008 "High Level Conference on Food Security: Global Challenges of Climate Change and Bioenergy", and the FAO-PISCES/DFID study on: "Small scale bioenergy initiatives: Brief description and preliminary lessons on livelihood impacts from case studies in Asia, Africa and Latin America". A Technical Consultation was held on: "How to design, implement and replicate sustainable small-scale livelihood-oriented bioenergy initiatives". Furthermore, 2009 saw the launching of the German-funded "Bioenergy and Food Security Criteria and Indicators" Project (BEFCI), while resources were mobilised to support work on integrated food energy systems in 2010.

39. As regards climate-related work, a tool was developed, the "CM Box" (Crop Monitoring Box), for agrometeorological crop monitoring and forecasting at the national level. The package can be tailored to suit countries' specific requirements, and in fact was adopted by a number of

countries. The Rainfall Estimate (FAO-RFE) for Africa is also a new independent method to estimate rainfall amounts, based on satellite and ground data. One of the immediate applications of both CM Box and FAO-RFE is the area of index-based crop insurance. It was tested in Malawi and can easily be extended to other crops. Based on the CM Box, a very detailed study was conducted on the impact of climate change in Morocco.

40. In the context of the UN/FCCC (Framework Convention on Climate Change) negotiations, FAO consistently advocated that agriculture needs to be part of the solution and thus duly reflected in eventual outcomes of these negotiations, including financing mechanisms needed to enable agriculture, including smallholder agriculture, to adapt to the impacts and contribute to mitigation. The importance of managing trade-offs between "REDD-plus" actions and expansion of agriculture was articulated. Specific support to the negotiations included policy briefs, three substantial publications, the organization of /participation in 6 side events, and the co-organization of Agriculture and Rural Development Day I and Forest Days I, II and III.

41. Additional climate change related activities included Experts Meetings in preparation of the 2008 High Level Conference on World Food Security and the Challenges of Climate Change and Bioenergy and the preparation of several background papers. A Web-based E-learning tool: "Planning for community based adaptation to climate change" was developed together with a Guidebook for Disaster Risk Management Analysis. The 2nd phase of FAO's first climate change adaptation project: "Livelihood adaptation to Climate change" was completed. This project (in Bangladesh) led to the identification, field testing and documentation of more than 60 location specific climate adaptation practices in farming areas prone to increasing drought and soil salinization. It mobilized an additional USD 4 million for follow up in 2010-15. Other projects related to climate change adaptation were initiated.

42. In the context of UN-REDD (Reducing Emissions from Deforestation and Forest Degradation) substantial progress was made as regards measuring, reporting and verification (MRV). Capacity development took place through courses and special technical workshops. To assist national activities, FAO provided technical support, tools and data in all nine UN-REDD pilot countries in developing MRV systems. A breakthrough was made in terms of remote sensing data availability within the Global Forest Resources Assessment (FRA) Programme, i.e. free of charge and ready-to-use remote sensing data. Progress has also been made in assessing the multiple benefits of forests.

Programme 2L: Technology, research and extension

43. Technical assistance was provided to several countries in Africa to improve their National Agricultural Research Systems (NARS). Capacity for formulating and implementing biotechnology research policy and biosafety regulations was enhanced by providing neutral and science-based information and through technical assistance at national and regional levels. An Expert Consultation assessed needs for promoting agricultural innovation in Central Asian countries. A global review of Good Practices regarding Agricultural Extension and Advisory Services was carried out, and a training module on Agricultural Extension Policies and Strategies for Reform was developed, both offering a sound basis for improvement of national extension and advisory services. Virtual Extension, Research and Communication Network (VERCON) projects were initiated, continued or completed in several countries. A revised interactive platform for documenting and sharing of proven technologies for small producers (Technology for Agriculture – TECA) was launched. Continued support was given to the governance of the Global Forum on Agricultural Research (GFAR) and partnership with CGIAR, as well as to the establishment of a global forum for agricultural advisory services.

44. For the Secretariat of the CGIAR Science Council, the 2008-09 biennium was a period of transition. In the wider process of change of the CGIAR, the Science Council has been re-designed as the "Independent Science and Partnership Council", with an adjusted mandate to focus on: strategic studies, underpinning CGIAR research; the evaluation of CGIAR mega programme research proposals; the mobilization of science for, and impact assessment of CGIAR

Research Programme. The change formally took place in December 2009. The Science Council co-organized and sponsored the Science Forum held at the University of Wageningen in June 2009 which discussed: the mobilization of global links in science, particularly in the "Science of Resilience"; the future of food; needed changes in the generation of agricultural science and research and technology findings; eco-efficiencies in agro-ecosystems; and the biobased economy. Major outputs of Science Council studies and reviews were the external programme management review reports of the International Rice Research Institute (IRRI), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Bioversity International. The Council published a year long assessment "Review of the Social Sciences in the CGIAR", as well as "Biotechnology, Biosafety and the CGIAR", "Defining and refining good practices in ex post impact assessment". A workshop was held with senior representatives of the private sector and CGIAR scientists on the subject of "Intellectual Property Stewardship Liability".

Programme 2M: Rural infrastructure and agro-industries

45. The main focus was on *competitive agro-enterprises* and the enhancement of value chains and producer-market linkages, with strengthened inter-agency cooperation with UNIDO and IFAD – e.g. co-hosting of the Global Agro-industries Forum (GAIF) held in Delhi in April 2008, the Regional Agro-industries Fora for Asia (in China in November 2009) and Latin America (Lima, Peru in October 2009), and the High-Level Conference on Development of Agribusiness and Agro-Industries in Africa (HLCD-3A) held in Abuja in March 2010. In addition, related websites and knowledge sharing arrangements, including the Rural Finance Learning Centre and the Information Network on Post Harvest Operations (INPhO) were enhanced, and a new Contract Farming resource centre was established during the biennium.

46. Workshops were held in Africa and Asia on the establishment and operation of inter-professional associations to enhance market organization and linkages, and a study on commodity associations as a tool for supply chain development was carried out. An Expert Meeting was held on Risk Management in Agricultural Lending (co-organized with The World Bank, the African Regional Agricultural Credit Association (AFRACA) and the Land Bank of South Africa). Other studies or publications dealt with: structured finance for agriculture in Eastern European and Central Asian countries as they look at new ways to address access to finance and reduce risk; Investment Funds for Agriculture; agro-enterprise clusters as catalysts to agro-industries development; and characterization and ranking of enabling environments for agribusiness and agro-industry development.

47. New training tools dealt with agribusiness management for producers associations and the promotion of productive alliances in agrifood chains. Regional conferences on Agricultural value chain financing were held in Asia (India and Malaysia) and in Africa (Kenya), following on an earlier workshop for Latin America in December 2007. Studies on the commercial potential for traditional and specialty food products in Africa were completed and capacity building workshops held. Needs assessment studies were carried out in India, Bangladesh, Thailand and the Philippines regarding upgrading strategies for local, ethnic and traditional confectionery processing and a training manual was prepared.

48. A regional seminar on rural development and food quality linked to geographical origin was held (in Asia) in late 2009, and a regional workshop on building capacity on the same topic was held in Costa Rica. Two workshops on linking farmers to markets and roles of NGOs were held in Asia and Africa and a workshop on Contract Farming and its role in enhancing links and support services to small farmers was held in Africa. Guides on investment and capacity building for GAP implementation for the fresh fruit and vegetable sector and on enhancing farmers' access to markets for certified products were prepared. FAO worked on the development of a programme framework for the reduction of post-harvest losses in Africa, in collaboration with the African Development Bank (AfDB).

49. Other activities included: a guide on on-farm post-harvest management of food grains; synthesis report on appraisal of marketing strategies, financing mechanisms and value-adding

opportunities in the organic sector; augmentation of the highly demanded diversification booklet series (13 topics ranging from horticulture to hides and skins); guides on farm management extension and Farm Business School training; appraisal of public sector agricultural mechanization schemes in Africa; updating of the FAO Farm Structures Manual; round tables on investment in agricultural mechanization and on market-oriented infrastructure development in Africa; a guide on pack house infrastructure lay-out, design, management and maintenance; publication on the appraisal of public-private partnerships in market oriented rural infrastructure.

50. Support to field programmes was notably in terms of "food security through commercialization" projects and the all-ACP Commodities Programme in the Caribbean, Africa and the Pacific.

B. CHAPTER 3: KNOWLEDGE EXCHANGE, POLICY AND ADVOCACY

Programme 3B: Food and agricultural policy

51. Major FAO flagship publications were produced and disseminated, including the annual State of Food and Agriculture (SOFA), with special themes on Biofuels (2008) and Livestock (2009); and the State of Food Insecurity in the World (SOFI), which addressed High food prices (2008) and Economic crises (2009). Analyses of the impact of the global food and economic crises on the poor and food insecure also contributed to a variety of other workshops, publications and high-level events, in particular the High Level Conference of June 2008 and the High-Level Expert Forum on "How to Feed The World in 2050" (October 2009).

52. Reforms of the CFS aiming at strengthening the global architecture and governance of the global food security system were addressed by the Membership during 2009 and the results approved by the FAO Conference and endorsed by Heads of States and Governments at the World Summit on Food Security in November 2009. The CFS is to be more open and should provide a platform for a broad range of committed stakeholders to work together in support of country led processes to combat hunger and ensure food security and nutrition for all.

53. Work on evidence-based food security information, analysis and policy advice covered *inter alia*: vulnerability analysis in Chad, Kenya, Palestine, Sudan, Somalia and the Asia region (Asia-FIVIMS), social safety nets in Bangladesh, policy intelligence in Kenya, value chain and nutritional analysis in the Caribbean, a comprehensive agricultural and food sector review in Egypt in response to soaring food prices and numerous country and regional studies of prices and markets.

54. The previous phase of the EC-FAO "Food Security Information for Action" Programme was completed in 2008. The programme covered 17 countries to enhance national capacity to use food security information for more effective anti-hunger policies and programmes. In 2009, the programme (with the title "Food Security Information for Decision Making") entered a new phase aimed at improving the quantity and quality of food security information and analysis and promoting its use in decision making processes. The programme serves as the global hub for six regional programmes implemented by the EU under its "Food Security Thematic Programme (FSTP)". Achievements in 2008-09 included: harmonized standards related to food security and tools for food security related analysis, such as the GIEWS workstation and the GAUL sub-national layers; a resilience tool (rolled out in Palestine), supporting the development of the Integrated Food Security Phase Classification (IPC) process; and nutrition tools for measuring dietary diversity. The programme produced major publications backed up by communications campaigns and seminars.

55. The Rural Income Generating Activities (RIGA) project helped improve understanding of rural households in developing regions, as they are involved in a variety of economic activities as part of complex livelihood strategies. The RIGA project operated through: (a) an innovative database on sources of income, with 29 surveys covering 17 countries in Africa, Asia, Eastern Europe and Latin America; and (b) research papers investigating key policy research issues. The

data so generated are being used very widely by researchers in public and private institutions and fed into FAO's own flagship reports, as well similar reports of other Organizations (World Development Report 2008 and IFAD's Rural Poverty Report 2010).

Programme 3C: Trade and markets

56. As regards *short-term market analysis*, the FAO Food Price Index continued to be quoted as the benchmark in the context of acute attention being given to international food prices. The index, updated monthly, is available on the World Food Situation Portal, which also emerged as a prominent source for up-to-date information on food markets around the globe. As in the past, Food Outlook reports, the well-established FAO publication that provides short-term forecasts for global food and feed markets, continued to receive extensive media coverage, underlying FAO's leading role for timely information and analysis on agricultural commodity markets.

57. Concerning *medium term commodity projections*, FAO and the Organisation for Economic Co-operation and Development (OECD) jointly developed a modelling system to project world prices, production, utilisation, stocks and trade of key agricultural commodities. The system, which combines OECD's Aglink and FAO's Commodity Simulation Model (Cosimo), currently encompasses about 55 countries and regions and 18 commodities. Projections so derived are used to prepare the OECD–FAO Agricultural Outlook, an annual publication that provides a 10-year assessment of prospects in the major world agricultural commodity markets.

58. 2009 coincided with the *International Year of Natural Fibres* (IYNF), the declaration of which reflected the importance of this group of commodities to many countries, particularly the most vulnerable ones. The objectives of the IYNF were in particular to improve the lives of the poor who are involved in natural fibre production and processing, promote new markets and uses for natural fibres, and improve the efficiency and sustainability of natural fibre industries. FAO facilitated its observance, in collaboration with governments, regional and international organizations, non-governmental organizations, the private sector and relevant organizations of the United Nations system. At the heart of the FAO campaign was the IYNF website (www.naturalfibres2009.org) operating in 8 languages. An IYNF video was produced in seven languages, with funding assistance from the Common Fund for Commodities and the New Zealand Trade and Enterprise. FAO also hosted a fashion show at its headquarters featuring clothing designed by Italian designers who use 100 percent natural fibre textiles such as organic cotton, cashmere, alpaca and silk - in their creations. A host of events under the umbrella of the IYNF took place outside Rome (conferences, workshops, exhibitions, seminars, fairs and festivals in 50 countries).

59. FAO, in collaboration with UNCTAD, the International Trade Centre, the World Bank and the Common Fund for Commodities jointly implemented the *All ACP Agricultural Commodities Programme* (AAACP) funded by the EU, a four-year programme to strengthen capacities of ACP stakeholders to develop and implement sustainable commodity strategies. Activities included: (i) the formulation of effective commodity strategies and implementation plans for the cassava sector in Zambia and Guyana, coffee in Cameroon, and fruits and vegetables in Samoa; (ii) improved access to, and use of markets, production factors and services, through capacity building in agribusiness skills and management for cooperatives in selected countries in each ACP region; and (iii) the introduction of market-based instruments to reduce producers' income vulnerability.

60. The *Global Information and Early Warning System* (GIEWS) continued to monitor and report on the world food situation both globally and with respect to low-income food-deficit countries, as well as on a country basis. It also provided early warnings of impending crises, while joint assessments were carried out with WFP in food deficit countries. In 2009, electronic country briefs on food security situations have been developed, including information on current agricultural season and the harvest prospects for main staple food crops and livestock. Visits to the GIEWS website, which were already relatively high, have increased steadily since the introduction of these country briefs on food security. In addition, revised "Joint Guidelines for

Crop and Food Security Assessments" for FAO/WFP missions at the country level have been issued. GIEWS supported the broader FAO Initiative on Soaring Food Prices with the development of web-based "National basic food prices – data and analysis", now covering 73 countries. It also undertook missions/studies to assess the impact of high food prices on food security of vulnerable populations in Pakistan, Bangladesh, Peru and Nepal, adapting the vulnerability analysis methodology for food security monitoring and assessment of the impact of economic shocks at household level.

Programme 3D: Agriculture information and statistics

61. In addressing FAO's core statistical work, the main achievements under this programme were as follows:

- spearheading international efforts in the context of the Global Strategy to Improve Agricultural Statistics, in cooperation with key development partners and under the auspices of the UN Statistical Commission, including: new international standards and classifications (ISIC, CPC, HS, Land Cover & Use); methodological guidelines; organization of meetings and joint data collections;
- putting in place more effective coordination mechanisms for FAO statistical systems, with the establishment of two permanent Committees (one to deal with strategic decisions; and the other for technical decisions and implementation) and mapping of existing datasets and databases within FAO;
- the development and 'roll out' of CountrySTAT in 17 sub-Saharan African Countries, supported by an inter-regional project funded by the Bill and Melinda Gates Foundation; assistance also included promotion of participation of countries in the WCA2010 through methodological studies, expert consultations, seminars and capacity building;
- maintenance of, and continuing improvements to FAOSTAT, the corporate database for the management and dissemination of statistical data; this involved strengthening of both the hardware and software platforms. Core data sets were updated, validated and disseminated, including statistics on: resources, production, prices, agricultural trade and its flow by origin and destination; supply utilisation accounts for crops and livestock products, agricultural trade, output, input price and productivity indexes and Food Balance Sheets; Statistics Division website was completely overhauled and accessibility to FAOSTAT database improved;
- compilation of food security indicators for the monitoring of the WFS targets and the MDG Goals; inputs to major FAO flagship publications; maintenance of specialised databases on food security, investment in agriculture, assistance to agriculture, government expenditures on agriculture, macro-economic indicators and census of agriculture to monitor other aspects of agricultural and rural development; work was also carried out on data disaggregation by gender and other parameters.

Programme 3E: Alliances and advocacy initiatives against hunger and poverty

62. Countries were assisted as regards the implementation of the *Right to Food Guidelines* through methodologies and tools, policy advice, information and capacity development. A major achievement was the Right to Food Forum held at Headquarters in 2008, which brought together more than 400 participants from government, academia, UN organisations and civil society to exchange experiences and lessons learned with national implementation of the Guidelines. In 2009, the Right to Food methodological toolbox was launched as a comprehensive set of tools to support country efforts in integrating right to food concerns into legislation, monitoring & assessment, education and budgeting practices. FAO's right to food website received a substantial number of visits.

Programme 3F: Gender and equity in rural societies

63. This programme continued to support *gender mainstreaming* within FAO, building on the third Plan of Action for Gender and Development (2008-2013) adopted by the FAO Conference in 2007. Unlike the previous Plans of Action, this plan specifies tangible outputs and indicators.

Hence, a revamped Gender Focal Point Network was established, playing a key role in the formulation of the applicable components of FAO's new Strategic Objectives to be reflected in the PWB 2010-11.

64. *Policy support* was provided on integrating gender issues and HIV and AIDS in agricultural and rural development policies and programmes in Africa, Asia and Latin America. Gender sensitive guidelines were developed for National Medium Term Priority Frameworks (NMTPFs) and countries were assisted to improve the collection, analysis and retabulation of agricultural statistics in national systems. FAO also participated in the in-depth dialogue during the 8th session of the UN Permanent Forum on indigenous issues. In connection with the Civil Society Sessions associated with the World Summit for Food Security (2009), one dealt with Rural Women and the other with Indigenous Peoples, both of which leading to recommendations for the Summit.

65. FAO assisted Governments and other stakeholders to develop capacities to analyze and integrate gender into agriculture and rural development policies and programmes through training, facilitation and the development of tools and methodologies. A new tool is aimed at middle and higher level agriculture managers for use in the planning and implementation of the agricultural sector response to AIDS and was piloted in various countries. In relation to gender mainstreaming, Socio Economic And Gender Analysis (SEAGA) tools were adapted to regional and national contexts, as well as to emerging issues such as disaster risk management (DRM) and climate change adaptation.

66. Regarding work on *knowledge generation*, management and advocacy, analytical studies were undertaken on the nexus between agriculture, gender equality and food security. Particular attention was given to dimensions such as: climate change, bio-energy, trade, disaster risk management, diseases and health, migration, agro-biodiversity, rural employment and gender-based violence. Publications were issued on the linkages between food security and livestock, crop and human diseases, gender and climate change, and gender and land rights. Several advocacy events, in particular International Women's Day, were held in collaboration with the other Rome-based agencies.

Programme 3G: Rural livelihoods

67. Partnership was pursued with the International Labour Organization (ILO) on agricultural and rural employment, based on the Memorandum of Understanding signed in 2004. A joint FAO-ILO website "Food, Agriculture and Decent Work" now provides information and increases visibility of joint work on selected rural employment issues. In addition, under the framework of the 2nd United Nations Decade for the Eradication of Poverty and the UN system-wide Plan of Action on Full Employment and Decent Work for All, FAO served as focal point for joint implementation of two of the nine CEB Joint Crisis Initiatives, in particular the Global Jobs Pact (GJP) "Boosting employment, production, investment and aggregate demand, and promoting decent work for all", and the Social Protection Floor Initiative (SPF-I).

68. Among other main achievements, the programme has analyzed further rural employment and livelihoods issues and trends, and compiled innovative policy measures and good practices. The FAO-ILO-IFAD workshop on "Gaps, trends and current research in gender dimensions of agricultural and rural employment: differentiated pathways out of poverty" (March 2009) generated new policy recommendations on gender and rural employment, which will form the basis for a publication and a number of policy briefs. In addition, a draft *Rural Employment Strategy* was formulated to enable FAO to provide support to countries in ways that are complementary to, and coherent with the rest of the UN system. FAO also played a leading role together with ILO in the International Partnership for Cooperation on Child Labour in Agriculture (IPCCLA).

69. *Junior Farmer Field and Life Schools* (JFFLS) have helped to promote rural youth employment through a skills-building approach. In 2008-2009, JFFLS were promoted in 17

countries. A "Getting Started" manual on: "Running a Junior Farmer Field and Life School" was widely disseminated, and a monitoring and evaluation toolkit developed.

70. The Switzerland and France-supported Project for a "Sustainable Agriculture and Rural Development in Mountain Regions" assessed mountain-related policies, institutions and processes in Carpathian and Balkan countries and Ethiopia, and issued recommendations. One of the core issues identified was the Remuneration of Positive Externalities (RPE) provided by mountains people and regions. Concrete cases were documented and analyzed and pilot projects proposals were developed.

71. A workshop on "Learning from good practices in building agricultural and rural development institutions" was conducted at HQ (September 2009) to identify policies and actions that best promote *effective rural institutions*. Based on the workshop, a publication on "How to increase food security and empower small producers: learning from good practices in building agricultural and rural development institutions" is to be released in 2010, including 35 selected good practices. Many publications and learning resources on institution building for producer organizations were made available through FAO's Capacity Building Portal. The *Participation* Website (http://www.fao.org/participation/) also disseminated tools and methodologies to support participation in project and policy design, implementation, and evaluation.

Programme 3H: Knowledge exchange and capacity building

72. The programme spearheaded implementation of two priority interdisciplinary themes during 2008-09: Knowledge management and Capacity building. Work on the first theme was based on the agreed Corporate Knowledge Strategy, providing a vision and way forward in terms of knowledge sharing for the Organization. Several component programme entities supported the knowledge strategy via information and knowledge exchange networks, standards for facilitating information exchange, and tools and services provided to FAO information users as well as Members. The WAICENT platform expanded its interactive services under *"Ask FAO"* to build on the Organization's tacit knowledge of technical expertise and worldwide best practices. On average, there were 3.5 million monthly visits to the FAO Web site. The FAO Country Profiles portal (http://www.fao.org/countryprofiles/) was improved, benefiting from added data coverage supplied through EarthTrends Profiles. The AGRIS application (http://www.fao.org/agris) continued to be among the most used FAO pages, while around 140,000 new records were added to the repository. Another portal (http://www.1billionhungry.org/) launched a worldwide advocacy campaign, 1Billionhungry, in time for the 2009 Summit on World Food Security.

73. Information exchange standards involved strategic partnerships with research and development institutions while facilitating sharing of information. The AIMS (Agricultural Information and Knowledge Management Standards) website at http://www.fao.org/aims was redesigned, improving access to the AOS (Agricultural Ontology Service) registries and creating space for different AIMS communities. The first network of Fishery Ontologies was established. Additionally, the geopolitical ontology, which brings together the most up-to-date information about country names in all FAO languages and international coding systems, was launched and is being used by various systems in FAO and in other Organizations. The AGROVOC user community continued to grow, with Korean and Russian versions added in 2009. The Fedora Commons is FAO's new open-source digital object repository system in the Open Archives programme, resulting in a unified database for metadata, a new cataloguing system, an improved workflow for the Organization and a new search interface for the Corporate Document Repository (http://www.fao.org/documents), which now includes links to FAO GoogleBooks. This new feature gave full visibility to FAO publications that were accessible only through GoogleBooks, and also recognized the important work that Google has done in digitizing thousands of FAO publications. The David Lubin Memorial Library made the collection of the "Centre International de Sylviculture" and the historical works of Lord Boyd Orr accessible through collaborative projects and provided a full range of library services to FAO users and Members. At the same time, substantial contributions were made to Information and Knowledge Management projects in

countries, e.g. within the Indian National Agricultural Improvement Programme (NAIP) with assistance given in the development of Open Archives for Agricultural Science and Technology.

74. A milestone event was the *Share Fair* (http://www.sharefair.net/home/en/) held in January 2009, a collaborative effort of five Rome-based organizations (FAO, IFAD, WFP, CGIAR and Bioversity International) which showcased knowledge sharing tools such as blogging and Wikis. The Share Fair sparked the creation of the FAO "Knowledge Café", where staff can create profiles and share skills, blog about knowledge sharing in-house, and learn about knowledge sharing methods and tools.

75. The *Corporate Strategy for Capacity Development* was finalized after wide consultation with member countries, key partners among international development institutions and across FAO itself. The strategy builds on principles laid down in the Paris Declaration on Aid Effectiveness of 2005 and the OECD/DAC paper "The Challenge of Capacity Development: Working Towards Good Practice". Using an integrated approach, the strategy addresses capacity building at the individual, organizational and institutional (policy) levels. A Web portal was established to provide case studies illustrating good practices (www.fao.org/capacitybuilding).

76. Support to enhancing technical competencies and learning took place in particular through a series of *e-learning programmes*, providing on-the-job training for professionals in FAO and developing countries, having reached more than 160,000 individuals world-wide. The Information Management Resource Kit (IMARK) (http://www.imarkgroup.org/) curriculum offered six modules, four of these now available in three languages, with the latest module entitled "Web 2.0 and Social Media for Development". The UN and other international agencies were engaged along with national and regional partners, and a number of academic and training institutions including: the Open University of Catalonia (OUC), the United Nations Institute for Training and Research (UNITAR), the African Virtual University (AVU), Capacity Building International Germany (InWent), and the Groupe de recherche et d'échanges technologiques (GRET). E-learning facilities were also offered to staff, together with access to materials to other institutions through the Train4Dev Network.

77. The FAO's Programme on "Bridging the Rural Digital Divide" was further supported. Firstly, the *Access to Global Online Research in Agriculture (AGORA)* programme continued to provide some of the world's poorest countries with free or low-cost access to scientific literature (over 2,000 registered institutions by the end of 2009 and 275,000 articles downloaded from Elsevier alone in 2009). Secondly, FAO, as Lead Facilitator for Follow-up to the Action Line on *e-agriculture* (in the context of the World Summit on the Information Society (WSIS)), led a dynamic global community of practice, with a web-based platform (http://www.e-agriculture.org/) which comprises more than 6,000 individual members from over 150 countries. Thirdly, a new global partnership: *Coherence in Information for Agricultural Research for Development (CIARD)* (http://www.ciard.net/), was launched together with GFAR, IAALD, the CGIAR, and other partners, to make public domain information truly accessible. Five regional consultations were co-organized by the founding partners during 2009 with the objective of refining the Manifesto and Values of the initiative. Within the CIARD initiative, FAO supported open archive projects and networks in Bangladesh, China, Colombia, Ghana, India, Kenya, Laos, Peru, Thailand and Zambia. Close collaboration with the GFAR Secretariat led to the development and launch of the CIARD RING (Routemap to Information Nodes and Gateways) (http://ring.ciard.net), a global registry of agricultural information services. Lastly, agricultural information systems received assistance via field projects in Armenia, Bhutan, Chile, Costa Rica, Jordan, Oman and Panama, many of these based on the VERCON conceptual model for enhancing Research-Extension linkages (http://km.fao.org/vercon).