

Chair's Summary
High-Level Expert Group Meeting
on Using Green Agriculture to Stimulate Economic Growth and Eradicate Poverty
25-27 October 2011, Ramat Gan, Israel

1. The High-Level Expert Group Meeting on Using Green Agriculture to Stimulate Economic Growth and Eradicate Poverty was held in Ramat Gan, Israel from 25 to 27 October 2011. It was co-sponsored by the Government of Israel, through MASHAV (Israel's Agency for International Development Cooperation) and the Ministry of Agriculture, and the Secretariat of the United Nations Conference on Sustainable Development (Rio+20). Dr. Mordechai Cohen (Kedmon), Agriculture and Rural Planning and Development, Chaired the meeting, which was attended by more than 70 participants, including high-level officials from 28 member States, national and international agriculture experts, representatives of UN system agencies, and Major Groups.

2. The purpose of this High-Level Expert Group Meeting was to raise awareness of the central role that green and sustainable agriculture can play to stimulate economic growth and combat poverty through the sharing of knowledge, best practices and lessons learned. The concept of green economic growth is based on simultaneous development and protection of the environment, lessening pollution, pollutants emissions and inefficient use of natural resources, together with reducing the amount of wastes produced. Green growth strategy encompasses many domains of public policy.

3. The Expert Group Meeting constitutes a contribution to the preparations for Rio+20, exploring how green and sustainable agriculture can contribute to a green economy, addressing the importance of sustainable agriculture in ensuring food security, mitigating and adapting to climate change, and stimulating economic growth in the context of sustainable development and poverty eradication.

4. The meeting explored methods and tools that allow sensible and sustainable use of natural resources as inputs in agriculture, allowing for food production while keeping agriculture as an economically viable sector. The discussions focused on the farmer as the primary stakeholder and examined the broad spectrum of tools that can assist in increasing food production and eradicating poverty, allowing for acceptable livelihoods while making sensible use of limited natural resources. Activities of both small and large scale farmers were covered, bearing in mind the need to provide food for the farmer's family, and, if possible, for external markets; ensure economically viable production and development, and preserve the environment.

5. The underlying premise of the meeting was that natural and ecological resources, which provide the basis for all agricultural production and its inputs, belong to the public. Hence, public involvement in the management, allocation and preservation of these resources is essential. National and regional governments, as well as global cooperation, must put forward a public policy in agriculture that takes into consideration the environment and realizes its potential while simultaneously allowing food production and economic development.

6. Dr. Mordechai Cohen (Kedmon) opened the meeting with an overview of the main problems that the agricultural sector faces in the 21st century and an introduction to the topics to be discussed. Ms. Orit Noked, Minister of Agriculture and Rural Development of Israel, Mr. Sha Zukang, Under-Secretary General of the United Nations Department of Economic and Social Affairs and Secretary General of the United Nations Conference on Sustainable Development (Rio+20), and Ambassador Daniel Carmon, Deputy Director General of the Ministry of Foreign Affairs and Head of MASHAV, Israel's Agency for International Development Cooperation, attended the opening ceremony and made statements. Dr. Hans R. Herren, President of the Millennium Institute and founder of the Biovision Foundation, provided the keynote address, in which he placed sustainable agriculture and the small holder farmer at the center of sustainable development and outlined how present agricultural systems can be transformed to sustainably support the planet's need for food security.

7. The first day of this meeting addressed four main topics: mobilizing large and small-scale farmers, macroeconomic policies for green agriculture, agricultural food production and the environment, and identifying stakeholders in agriculture. The topics were introduced by panels of expert speakers and followed by parallel roundtable discussions among participants.

8. The topic of mobilizing the farmer was introduced through presentations by Mr. Johnathon Gressel, United States Department of Agriculture, Foreign Agricultural Service, and Mr. Alex Mueller, FAO's Assistant-Director General for Natural Resources and the Environment. Dr. Moshe Azencot, a consultant in agricultural extension and rural development, Israel, chaired the roundtable, which focused on means and tools for mobilizing the farmer to adopt economically viable food production methods while making efficient use of natural resources.

9. Macroeconomic policies for green agriculture were presented by Mr. Antoine Renard, Head of the Programme Support Unit, World Food Programme, and Ms. Sima Yudovich, Deputy Director General, Finance and Investment Ministry of Agriculture and Rural Development, Israel. The roundtable, which was conducted in parallel with roundtable one, was chaired by Professor Nir Becker, Department of Economics and Management, Deputy Dean, Faculty of Social Sciences and Humanities, Tel-Hai Academic College, Israel.

10. The topic of agricultural food production and the environment was introduced by presentations from Dr. Shrikant Limaye, Director of the Groundwater Institute, India, and Dr. Patricia Imas, Chief Agronomist at ICL Fertilizers and representative of Farming First. Professor Uri Mingelgrin, former Deputy Head for Scientific Affairs, Agricultural Research Organization, Israel, served as the Chair for this roundtable.

11. The topic of identifying stakeholders in agriculture was presented by Dr. Sarala Gopalan, World Farmers' Organization, and Dr. Esther Kimani, Phytosanitary Services, Kenya Plant Health Inspectorate. The parallel roundtable was chaired by Dr. Yossi Inbar, Environmental Consultant and former Director General of the Ministry of Environmental Protection, Israel. Discussion revolved around potential stakeholders in agriculture, tools for cooperation, and potential conflicts and ways of handling them.

12. The second day of the meeting consisted of a field trip to various sites in the central part of Israel that demonstrated different types of management and technologies of intensive agriculture that aim to comply with sustainability on one hand and economically viable food production on the other. During the tour, environmental technologies based on Israeli research and development were presented, including recycling of sewage water for agricultural uses, advanced irrigation methods and technologies for different crops, environmental approaches and technologies for dairy farm facilities, and use of new methods in orchards. It included the presentation of different stakeholders in this system, including farmers, the State, and the private sector. The field trip was followed by a dinner hosted by the Israeli Government, including a summary of the day's visits presented by Mr. Yossi Yishai, Director General of the Ministry of Agriculture and Rural Development, Israel.

13. The final half day of the meeting was held in plenary where discussions on main ideas and conclusions were facilitated by the Chair of the meeting. Participants also heard a presentation by Dr. Michael Dorsey, Dartmouth College, on the potential role of sustainable agriculture in looking ahead to Rio+20.

14. Following a discussion on the exact meaning of the term "green agriculture", participants recognized that there is no agreement on its definition, with some noting that green agriculture should not imply only organic agriculture, but should encompass a wide range of sustainable agricultural methods and technologies, as long as they caused minimal damage to the environment and preserved the natural resource base.

15. The main conclusions from the meeting were outlined as elements of a Multi-Layered Road Map, including the following key messages:

- (a) Green Agriculture as a tool for economic growth and poverty eradication should be recognised as such and should be highly prioritized by Governments.
- (b) Green agriculture should be one of the main topics to be addressed during the Rio+20 Conference, in light of its central role in the green economy.
- (c) Ministers of agriculture should attend the Rio+20 Conference.
- (d) A global effort is required, especially in developing countries in order to strengthen overall resilience of agricultural systems, increase global food security, reduce poverty, and improve nutrition, while creating economic growth, and protecting and renewing the environment.
- (e) Infrastructure that will allow long-term forecasting of agricultural production required for poverty eradication, food security and sustainable natural resource management should be developed and available in and for each country.
- (f) Infrastructure must enable natural resource conservation, capacity building of farmers and other stakeholders, access to financial means, legislation, research and development, extension, public finance and planning.
- (g) A global resource centre of best practices, tools, knowledge, experiences and technologies should be developed for the benefit of all countries.

- (h) Appropriate policies for both small and large scale farmers have to be adopted while taking into consideration the development level of the country, noting that one size does not fit all.
- (i) Green agriculture refers to all components of the production and marketing chain, in particular post harvest management.
- (j) Green rural agriculture and rural communities are essential for the well being of society and the protection of environment and natural resources to balance the impact of rapid urbanisation.
- (k) Best management practices, including development and use of agricultural technologies in crop production, should be encouraged.
- (l) Links among research-extension-industry and farmers should be strengthened.
- (m) Public-Private-Partnerships are important for implementation of green agriculture.

16. The main messages emanating from the roundtable on means and tools for mobilizing the farmer to adopt economically viable food production methods while making efficient use of natural resources were elaborated under the following sub-themes:

Toolkit for farmers

- (a) Sound packages of agro-technology information for farmers, especially small and women farmers, to make more from less and sustain scarce resources
- (b) Strong extension services to transfer technology, to adopt changing patterns of agriculture, new scientific knowledge, strategies for adaptation to climate change and disasters, and maintenance of sustainable farming systems
- (c) Strong rural infrastructure to connect farmers to markets and to store and transport their produce
- (d) Access to inputs, including credit and market information
- (e) Insurance against disasters, and reliable warning systems
- (f) Payment for environmental services

Research and development

- (a) Develop basic and applied research, and develop a knowledge-basis for different agro-technologies and environmental conditions, including:
 - i. Growing methods for food production, with optimum use of limited natural resources and adaptation to climate change
 - ii. Applicable and sustainable food production methods
 - iii. Economically viable growing and management methods
 - iv. Effective practices for farmers, capitalizing on their local knowledge, as well as on scientific research

Extension services

- (a) Clarify extension objectives, clients, content, and methods
- (b) Preserve public institutions in charge of the assimilation of know-how
- (c) Enhance development of public and private extension

- (d) Provide the farmer access to information on production techniques, management, marketing and economy
- (e) Assure assimilation of know-how by farmers through training, follow up, monitoring and evaluation

Policy formulation

- (a) Set a general public policy (national and regional) to promote adoption of new agricultural “green” methods by the farmer
- (b) Assure public funding and the necessary budgetary requirements by policy makers
- (c) Encourage investment by farmers through different economic means
- (d) Define specifications for application of different methods
- (e) Promote farmers’ organizations and common interests groups

17. The roundtable on macro-economic policies for green agriculture examined the rationale for Government intervention, highlighting the market failures or “bottlenecks” such as farmers’ knowledge (especially in developing countries), farmers’ ability to pay, consumer knowledge, and the consumer’s ability to pay. It explored the question of who benefits and who has to pay the price for initiating green agriculture activities. The main conclusions from this roundtable are as follows:

- (a) Provide cost-benefit analysis for justifying research and development initiatives and regulations.
- (b) Provide a comparative analysis of policy types, including taxes (polluters pay) and subsidies that help farmers.
- (c) Increase price gap between conventional and green technologies
- (d) Understand distributional consequences.
- (e) Provide a list of beneficiaries and losers: producers, consumers, taxpayers, and environmental consequences; describe them qualitatively, and try to monetize their costs and benefits.
- (f) Always start from equal weights, then use political economics to derive different weights and show trade-offs.
- (g) Green agriculture as a potential solution for economic growth and poverty eradication will be knowledge-intensive.

18. The main conclusions from the roundtable on agricultural food production and the environment are as follows:

- (a) Adopting environmentally friendly practices in food production will benefit society at large as well as the individual farmer, both in economic terms and in quality of life.
- (b) Integrated actions based on know-how and technology requires that more resources are invested in research and development on green food production.
- (c) New and innovative financial solutions should become available to promote ecological and resource conservation.
- (d) Legislation is a means that will encourage sustainable agriculture while maintaining economic viability.

- (e) Green agriculture can be promoted through the dissemination of information and proper education, in both rural and urban sectors.
- (f) Protecting soil fertility is essential for the maintenance of food security.
- (g) Agricultural activity has positive externalities, including wastewater reuse and proper land use in order to prevent soil erosion.
- (h) In order to lessen competition between food and energy crops, the following points should be integrated in programs:
 - i. Cultivation to maximize output per unit land area
 - ii. Reclaiming potentially arable land for food or energy production
 - iii. Encouraging countries to exploit their full production potential
 - iv. Encouraging research to enable more efficient use of natural resources for food and energy production

19. During the roundtable on identifying stakeholders in agriculture, the main stakeholders in green agriculture were defined as:

- (a) Farmers - small holders and large farms
- (b) Consumers - rural and urban
- (c) Public Sector - local authorities, federal and state government, international organizations, global and regional conventions and agreements
- (d) Private Sector - input producers, input dealers, food processing, trade, financing
- (e) Civil Society - foundations, NGOs, farmers associations, scientific community

20. The key messages included:

- (a) Stakeholders are encouraged to develop partnerships, each one contributing according to its role. Success will require the innovative strength of industry, the leadership of government, the community mobilization of civil society and the entrepreneurship of farmers.
- (b) Governments must set the direction and play a strong leadership role in shifting to sustainable agriculture.
- (c) Businesses should stretch to innovate and invest, tactically driving implementation of the green economy through the market.
- (d) Global companies can leverage their resources to engage and strengthen local enterprises and partner with diverse stakeholders to deliver results at scale.
- (e) Civil society can mobilize the community to meet its unique social, environmental and economic needs.