



# FAO REGIONAL CONFERENCE FOR ASIA AND THE PACIFIC

## Thirty-fourth Session

Nadi, Fiji, 9–13 April 2018

### Report on the Outcome of the FAO Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific

#### Executive Summary

The FAO Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific was held from 11 to 13 September 2017 in Kuala Lumpur, Malaysia as a follow-up to the 2016 FAO International Symposium on “The Role of Agricultural Biotechnologies in Sustainable Food Systems and Nutrition”. The purpose of the regional meeting was to engage a broad range of stakeholders in the dialogue on the role and application of agricultural biotechnologies to improve food security and nutrition and make food systems more sustainable in the Asia-Pacific region.

The meeting highlighted the need for greater investment and partnerships, in particular through South-South Cooperation and public-private mechanisms, to enhance the use and application of biotechnologies for food security and nutrition in the region, to support the agriculture sector in the climate change context, and provide greater support to smallholders.

#### Matters to be brought to the attention of the Regional Conference

The Conference is invited to take note of the following recommendations from the meeting:

- 1) Creation of a knowledge platform on agricultural biotechnologies;
- 2) Promotion of public-private partnerships and South-South Cooperation for agricultural biotechnologies; and
- 3) Promotion of technology transfer to and/or among Pacific countries.

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## I. Background

1. FAO convened the international symposium on “The Role of Agricultural Biotechnologies in Sustainable Food Systems and Nutrition” from 15 to 17 February 2016, at FAO headquarters, Rome<sup>1</sup>. The symposium highlighted the important contribution that agricultural biotechnologies can make in achieving the Sustainable Development Goals and provided numerous examples where both low- and high-tech biotechnologies are being applied to meet the needs of small-scale producers and family farmers. The symposium successfully broadened the discussions beyond the narrow and polarized debate on genetically modified organisms (GMOs). It reinforced FAO’s role as a neutral forum that can bring together stakeholders from different backgrounds for a frank, open and constructive dialogue and exchange of knowledge on a controversial topic. During the symposium, the importance of bringing the dialogue from the global to the regional level was highlighted by participants. FAO therefore organized two regional meetings in 2017, the first in Asia-Pacific (11-13 September) and the second in Sub-Saharan Africa (22-24 November).

## II. Objective and organization

2. The FAO Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific took place in Kuala Lumpur, Malaysia<sup>2</sup>. The meeting was hosted and co-organized by the Government of Malaysia, involving the Ministry of Science, Technology and Innovation and the Ministry of Agriculture and Agro-Based Industry.

3. The main objective of the regional meeting was to engage a broad range of stakeholders in the dialogue on the role and the application of agricultural biotechnologies to improve food security and nutrition and make food systems more sustainable in the Asia-Pacific region. The meeting encompassed a wide spectrum of available biotechnologies used in crops, forestry, livestock and aquaculture/fisheries.

4. The programme for the meeting was developed using a participatory approach by an FAO task force, responsible for the development and delivery of the regional meeting, and a 15-member external advisory panel of internationally recognized experts, providing advice and guidance to the task force.

5. Over 200 people from 41 countries attended the regional meeting, including delegates nominated by 30 member countries in the region and representatives from a range of intergovernmental organizations, research institutions, civil society organizations, producer organizations and private sector entities in the region.

## III. Discussions

6. The two and a half-day meeting consisted of presentations and moderated discussions (nine plenary and six parallel sessions) dedicated to issues concerning agricultural biotechnologies in the region. Highlights included:

- preliminary findings of a study commissioned by FAO on “The status of application, capacities and the enabling environment for agricultural biotechnologies in the Asia-Pacific region” revealed that, while low and medium technologies are widely used in the region, few

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<sup>1</sup> The International Symposium website is at <http://www.fao.org/about/meetings/agribiotechs-symposium/en/>. The proceedings are at <http://www.fao.org/documents/card/en/c/66e9a36c-19b2-407a-83c9-5b767e233417/>. A four-page summary report of the symposium is available at <http://www.fao.org/3/a-bl623e.pdf>.

<sup>2</sup> The meeting website, containing the meeting report as well as the FAQs, final programme, advisory panel membership, press release, abstracts and PowerPoint presentations plus four FAO videos produced for the meeting, is at <http://www.fao.org/asiapacific/events/detail-events/en/c/1440/>

countries have adopted high-technology applications. Agricultural biotechnologies are firmly established in the region, where many countries have adopted policies to promote them. The enabling environment is mostly positive and there is new dynamism in some countries to support agricultural biotechnologies. However, there is still a large gap among countries regarding application, capacity and the enabling environment which needs to be addressed;

- numerous examples were presented (including four FAO videos produced for the meeting), where biotechnologies are currently being used in the region for the conservation, characterization and sustainable use of crop, forestry, livestock and aquatic genetic resources for food and agriculture;
- the adoption and use of biotechnologies can have a more significant impact on the livelihoods of smallholders when they solve practical problems, either by making new information available or overcoming biological obstacles in specific cultivated animal and plant species. It was noted that two-way communication between smallholders and scientists in the region is crucial for identifying these practical problems and for the dissemination and adoption of research results. Furthermore, capacity building and regional cooperation play a critical role in promoting the dissemination, adoption and use of biotechnologies;
- responding to climate change requires not only a proactive and integrated approach but also the rapid development of technological responses. Case studies showed that a range of biotechnologies are being used to enhance adaptation and resilience to climate change in the region. Biotechnologies with potential for increasing adaptation and resilience to climate change need to be assessed for their feasibility, affordability, safety and sustainability.

#### **IV. Key messages and recommendations**

7. The participants underscored the following key messages:
  - agricultural biotechnologies can help not only to meet the rapidly growing demand for food and the challenges of climate change, but also to benefit small-scale farmers and ensure food and nutrition security. However, agricultural biotechnologies on their own are not sufficient. A more holistic approach, including agro-ecological practices, is needed alongside use of biotechnologies to make agriculture sustainable and climate-smart;
  - agricultural biotechnologies are much more than GMOs, encompassing a full range of low- to high-tech biotechnologies. Many concerns about GMOs arise from a lack of information, science-based evidence and experimental data;
  - many applications of biotechnologies benefit producers, including small-scale farmers in the region, and it is critical that adequate support and investments are continuously mobilized. South-South Cooperation, public-private-partnerships, networking and other mechanisms to increase investment and strengthen science and innovation cooperation between various stakeholders from developed and developing countries should be explored;
  - the cost of applying biotechnologies can be a potential burden for least developed countries, but a single country may not need to deploy the full spectrum of tools in the biotechnology toolbox;
  - national and regional dialogues are critical to manage the challenges and reap the benefits of agricultural biotechnologies.

8. The action points recommended by the meeting for follow-up include:
- 1) **Creation of a knowledge platform on agricultural biotechnologies.** It is suggested that a platform involving stakeholders, especially those who are in the forefront of technology application, be created for improved communication and networking, increased knowledge exchange and strengthened partnerships regarding agricultural biotechnologies.
  - 2) **Promotion of public-private partnerships and South-South Cooperation for agricultural biotechnologies.** One of the key constraints in the development and application of agricultural biotechnologies is inadequate investment. Limited public investments in agriculture, and private sector investments tied up in only a few staple biotechnology products, do not provide much incentive to using agricultural biotechnologies on farms, and may even constrain their use. Fostering and strengthening public-private partnerships and South-South Cooperation to be more synergistic, and to fill investment gaps where necessary, is an innovative approach that would help developing countries to move a step closer to exploiting the benefits of agricultural biotechnologies for their needs.
  - 3) **Promotion of technology transfer to and/or among Pacific countries.** Although agricultural biotechnologies can benefit farmers in Pacific countries, the geographical isolation and limited market size of those countries make the benefits hard to realize in practice. As some Asian and Pacific countries have strong capacities and extensive experience in developing and applying agricultural biotechnologies, it is important for Pacific countries to learn from others through South-South Cooperation and partnerships rather than developing similar technologies to those existing in other countries. For this, international development agencies, such as FAO, have a role to play in knowledge sharing and experience exchange across subregions and countries.