





High Level Panel

Agriculture research and innovation needs in light of climate challenge

The African Union - European Union Agriculture Ministers Conference 21 June 2019, FAO HQ, Rome, Italy

CONCEPT NOTE

Context

Climate change is one of the biggest challenges of the 21st century. The understanding of the processes driving climate changes at local, regional and global levels and its impact on agriculture production is of paramount importance. To understand those processes we need not only new models and partnerships but also a new system thinking and new educational models that will fit to global challenges that future researchers need to tackle.

Deepening collaborative research is crucial for joint understanding of climate change its complexity and impact on agricultural production. This joint understanding can help us in developing new measures to tackle climate change and its consequences appropriately at local, regional and continent level. Without complex system thinking we cannot address climate change with a long term horizon that will create right conditions for sustainable growth in agriculture and creation of jobs for this sector.

The EU Africa Rural Africa Task Force in its report has called for boosting research, education and innovation systems. Innovation requires an efficient agricultural research, moving from linear top-down technology transfer models to collaboration based on combining scientific and farmers' knowledge. It also notes that improved innovation systems need to combine teaching (incl. vocation training), research and extension through a systemic collaboration between all institutions involved.

The EU-AU High Level Policy Dialogue (HLPD) on science, technology and innovation has been working with African and European experts and policy makers to respond to challenges of today and develop research for joint action. Currently three priority topics are being implemented: 1) the Partnership on Food and Nutrition Security & Sustainable Agriculture (FNSSA); 2) Climate change & sustainable energy; 3) Innovation.

In 2016 the FNSSA with its four pillars was adopted: 1) Sustainable intensification; 2) Agriculture and food systems for nutrition; 3) Expansion and improvement of agricultural markets and trade; 4) Cross cutting issues. Thus far, we have jointly invested more than 160ME under the Horizon 2020 funding (including countries contribution to co-funding actions) of the EU, the African Union Research Grants.

In a complementary way, the EUR270 million EU-led DeSIRA initiative intends to enhance cooperation between the EU and its Member States with African partners on climate-resilient and development-smart innovation in agriculture for sustainable rural transformation, with a specific attention to strengthening national and regional agricultural research and innovation capacities, and promoting multi-stakeholder partnerships for enhanced and long-term impact.

The session *Agriculture research and innovation needs in light of climate change* will be built around the four pillars of the FNSSA partnership, will consider the climate change services developed under the second priority topic and will tackle issues of education that is important to secure future employees and entrepreneurs in terms of knowledge gathering and sharing; and researcher's curricula.

Objective and outcomes

The main objective of the session will be to explore how climate change issues can be further integrated in the development of the FNSSA and DeSIRA and how we can invest better into future education at University level.

The keynote speakers and panellist will discuss the issue of climate change and its impact on agriculture from the perspective of two continents. Later we will have reflection on how best invest in education for future generation and future challenges. The panellist will be coming from both academia and practice including farmer's organisations and women representatives. The European Commission representative will give example of one of the new initiatives in support of the Africa-Europe cooperation: Pan Africa Network on Agri-Food Policies analysis (PANAP). The session will be closed with signature ceremony between the European Commission and AWARD & the AGROPOLIS foundation ('One Planet Fellowships' programme); IFAD (continental, regional research and extension organisations in support ot CAADP) and the FAO (Support to Tropical Agriculture Platform).

The discussion should help in **expanding the number of countries** involved in the R&I Partnership on Food and Nutrition Security and Sustainable Agriculture. The discussion should also reflect on how best tackle climate change adaptation and mitigation in the agriculture sector, what type of contribution science can make so that the generated research is translated into practice. How young farmers and women can be part of the solution from early stages of research developments; and how best to **support the long-term development** of research capacity of agricultural research centres and universities across the African continent as well as national innovation systems.

The discussants will ponder on how to **support the next generation of scientists in Africa** by actively involving them in collaborative research and innovation activities between the EU and Africa, including through professional development such as the One Planet Fellowships and mobility opportunities such as Marie-Skłodowska-Curie Actions and ERASMUS + and other types of Horizon 2020 projects. Joining and pulling resource from different organisations and philanthropic organisations is important as we can achieve more by joining forces and resources.

The outcome of the Ministerial Conference will be reported to the next AU-EU Summit and provide important input to related processes at various UN fora, and will guide the next steps in the research and innovation collaboration between the European Commission and the African Union Commission in this area. The outcome of this session will also be reported to the senior officials of the EU-AU that will meet in Addis Ababa on 6-8 November 2019 to discuss the overall research and innovation cooperation including progress of the FNSSA implementation.

Guiding questions for discussion

- The role of research and innovation approaches in providing solutions for global challenges, like the climate change and loss of biodiversity and related impact on agricultural production.
- How to support the next generation of agricultural scientists in developing their capacity?
- The future of agricultural research centres and universities in terms of its research capacity and reducing number of senior research staff.
- The role of farmer advisory services in 21st century?