



# Tunis Declaration

(From left to right)

**Ing. Fethi Thabet**

President of the Scientific Committee EFS Africa 2019

**Mr. Samir Ettaieb**

Tunisia Minister of Agriculture, Water Resources and Fishing

**Prof. Elyes Hamza**

President, Institution of Research and Higher Education in Agriculture, Tunisia

**Prof. Dr Gong Ke**

President-elect, WFEO

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Dean, Order of Tunisian Engineers



Photo of the signature ceremony  
25 June 2019

International Conference :  
Engineering and Food Security in Africa  
24-25 June 2019

2

## Tunis Declaration

We, engineers, researchers, members of civil society organizations, decision-makers from 40 countries gathered in Tunis on 24 and 25 June 2019, at the invitation of the Order of Tunisian Engineers and the World Federation of Engineering Organizations and under the high patronage of the Presidency of the Tunisian Government and of UNESCO, for the International Conference on **Engineering and Food Security in Africa**; as part of the contribution to the achievement of the Sustainable Development Goals SDG2 and SDG12:

### Whereas

- Food security is a major challenge for the world's population;
- Africa is the youngest continent with the highest population growth;
- Africa faces the most important challenges to ensuring its food security (health and climate change);
- Africa is the continent with one of the largest areas of potential agricultural land;



- Engineers have a central role to play in ensuring food security;
- The engineer rate in Africa is low compared to other continents;
- There are only a few engineering organizations in Africa, and only 23 are members of the World Federation of Engineering Organizations;

3

### We declare that:

- To face these multiple challenges, a transition to a sustainable African food system is essential;
- Innovative technologies are needed to improve food security and preserve natural resources and rural development in the context of climate change.

Under these conditions, we recommend the following actions:

### 1. Implement proactive food and agricultural policies by:

- The adoption of a territorial approach in line with the social and solidarity economy.
- The development of agricultural production systems adapted to the African context and that preserve natural resources.
- The valorization of ancestral know-how through scientific analysis and dissemination.

- Capacity building to systematically and operationally use space technologies in the monitoring and management of natural resources, agricultural territories and production for agricultural policy development.
- The adoption of an innovative organization for better coordination between stakeholders.

4

## 2. Intensify and pool the Research and Development effort between African countries and international organizations:

- Pooling work, efforts and results through platforms that are free and accessible to all.
- Encourage the use of advanced technologies such as robotics and the Internet of Things to support agricultural production.
- Intensify the exchange of information and experience to promote the widespread use of new practices that have demonstrated their resilience to climate challenges.

## 3. Set up efficient sectors (economic, environmental and social) within the framework of the territories

Adopt the systemic approach within a territorial framework to address climate change and food insecurity for sector development.

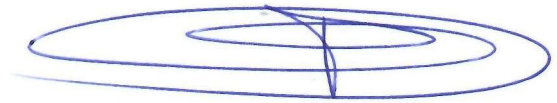
#### 4. Develop human resources in engineering, and strengthen institutional capacities:

- Strengthen engineering capacities, the associative network and increase the number of engineers in Africa;
- Train engineers with communication skills at the territorial and community level;
- Adapt engineering education to the challenges of food insecurity, sustainable development and climate change;
- Improve the labour conditions and environment of African engineers to limit their emigration.

5

Tunis, 25 June 2019

*Marlene Kanga*



**Dr. Marlene Kanga AM**  
President, World Federation of  
Engineering Organizations

**Eng. Oussama Kheriji**  
Dean, Order of Tunisian  
Engineers