Leveraging Innovation and Digitalization for Inclusive Agriculture and Food Systems Transformation in Africa

28 October 2020

Regional Office for Africa

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Source: 2020 Africa Regional Overview FSN –Forthcoming
Nutrition Challenges Increasing (Pre COVID-19)
Almost three quarters of Africa’s population cannot afford a healthy diet

<table>
<thead>
<tr>
<th>Region</th>
<th>Energy sufficient diet</th>
<th>Nutrient adequate diet</th>
<th>Healthy diet</th>
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<td>WORLD</td>
<td>4.6% 185.5</td>
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<td>AFRICA</td>
<td>11.3% 148.6</td>
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<td>1.4% 2.9</td>
<td>29.2% 84.3</td>
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<td>Sub-Saharan Africa</td>
<td>12.5% 145.8</td>
<td>53.4% 596.3</td>
<td>76.9% 828.8</td>
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<tr>
<td>Eastern Africa</td>
<td>9.4% 28.9</td>
<td>53.9% 224.2</td>
<td>75.3% 325.1</td>
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<tr>
<td>Central Africa</td>
<td>18.5% 27.9</td>
<td>59.8% 112.5</td>
<td>78.5% 142.4</td>
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<tr>
<td>Southern Africa</td>
<td>10.0% 11.1</td>
<td>41.7% 33.8</td>
<td>64.3% 40.3</td>
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<tr>
<td>Western Africa</td>
<td>13.1% 77.9</td>
<td>53.5% 225.8</td>
<td>81.6% 320.9</td>
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<td>African low-income countries</td>
<td>13.7% 46.5</td>
<td>64.4% 336.9</td>
<td>88.6% 472.5</td>
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<td>African lower-middle countries</td>
<td>10.9% 91.3</td>
<td>45.5% 310.3</td>
<td>68.4% 441.9</td>
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<tr>
<td>African upper-middle countries</td>
<td>4.4% 10.9</td>
<td>18.8% 33.5</td>
<td>36.9% 50.4</td>
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Sustainable Food Systems

A sustainable food system (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not
- **Policy**
  - 2030 Agenda for Sustainable Development
  - Malabo Declaration
  - AfCFTA market of 1.2 billion people

- **Demographics**
  - 800% increase in rural-urban food flow since 1970s
  - 60% of young people under 25
  - Urban food demand projected to average 47% in 2030 and 58% by 2050

- **Climate and Natural resources**
  - 26m in 20 countries affected by climate shocks
  - 34% fish stocks overfished; 60% at max sustainable limit
  - Soil degradation increasing, over 20% of land already degraded, affecting 65% of population

- **Shocks and disruptions**
  - Increasing incidence of pests and diseases
  - Trade, tourism and remittances losses from COVID-19 to cause -1 % GDP alone; overall between -2.1% to -5.1% 2020.
A SYSTEMS APPROACH

Scope for game-changing solutions exists but....

• Alignment of action is critical

• Trade-offs need to be understood and managed
FAO defines agricultural innovation as the process whereby individuals or organisations bring new or existing products, processes or ways of organisation into use for the first time in a specific context in order to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability and thereby contribute to food security and nutrition, economic development or sustainable natural resource management (FAO, 2018)
Examples of FAO Support on Innovation

- Documentation and dissemination of good practices and innovations through FAO-hosted platforms like TECA
- Development of guidelines for the assessment of agricultural innovation systems (AIS) and extension and advisory services (EAS).
- Facilitation of participatory dialogue among agri-food system stakeholders
- Scale-up of innovative practices and associated technologies (e.g. mechanization services, digital technologies)
- Enabling inclusive access to innovations for small-scale family farmers and processors and producer organizations through use of digital technologies
The Role of ICTs in Agriculture and Food Sectors

Examples of new technology applications

Internet of things: Checking soil health, introducing the traceability of products

Big data analytics: Customized weather and agriculture advisory services, e-agriculture marketplace information, disaster alerts

Blockchain: Smart contracts, improved supply chain monitoring, food safety, insurance

Drone and GIS based applications: Land use mapping, crop monitoring, productivity estimation, weather advisory services

Artificial intelligence: Plant disease detection, weather prediction, climate change analytics

Source: FAO, ITU, 2019 Blockchain for Agriculture Opportunities and Challenges
Growing number of examples of Blockchain pilots in the region – such as the Cocoa Value Chain in Ghana and Coffee in Ethiopia.

Not a panacea for all problems – requires the right ecosystem and stakeholders with capacities to sustain solutions and progress.
Examples of FAO’s support to Food Systems Transformation

Programmatic work across sectors, disciplines, with multifunctional objectives

National Food Systems Assessments

FAO Covid-19 Response and Recovery Programme

UN Food Systems Summit
شكرًا
Gracias
Merci
Obrigado
Thank you