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Policy Innovation for Transforming Africa's Food System with Digital Technologies

Institutional innovations, policy and programmatic innovations and implementation modalities of the country case studies.

Country	Institutional innovation	Policy and programmatic innovation	Implementation modalities
Côte d'Ivoire	<ul style="list-style-type: none"> ■ Creation of the Universal Service National Agency in 2012, to ensure universal access to ICTs. ■ Development of an eAdministration system. 	<ul style="list-style-type: none"> ■ Development of a comprehensive national e-agriculture strategy. ■ Exemption of VAT and reduction in custom duties for ICT sector between 2015–2018. 	<ul style="list-style-type: none"> ■ Creation of a free zone for biotechnology and ICT development. ■ Initiation of 'One Citizen, One Computer, One Internet Connection' to improve access to high quality ICT services.
Ghana	<ul style="list-style-type: none"> ■ Creation of the National Information Technology Agency in 2008 for continued R&D in partnership with the private sector. ■ Creation of the National Communications Authority to oversee competition, equipment standards and quality of service, consumer protection. 	<ul style="list-style-type: none"> ■ Implementation of the ICT for Accelerated Development Policy in 2003 to modernize the ICT sector, improve efficiency and productivity, and develop an agro-business industry using ICTs. ■ Design and implementation of the National Agricultural Investment Plan (METASIP II), including radio, TV, and communication vans for knowledge dissemination. ■ Enforcement of the Data Protection Act 2012. 	<ul style="list-style-type: none"> ■ Provision of quality meteorological data and forecasts in support of weather-sensitive sectors. ■ Implementation of an e-governance system in collaboration with the ICT Unit of the Ministry of Food and Agriculture. ■ Provision of District Agricultural Advisory Services using ICT. ■ Creation of Regional Community Information Centers to bring government e-services to rural areas. ■ Creation of the Esoko data collection tool.
Kenya	<ul style="list-style-type: none"> ■ Integration of ICT in all pillars of Vision 2030. ■ Establishment of Kenya National Innovation Agency (KENIA) in 2013 to institutionalize links between universities, research institutions, private sector, and the government. ■ Creation of an ICT Authority to promote e-government services. 	<ul style="list-style-type: none"> ■ Liberalization of telecommunications sector for more competitive services. Cooperation with financial sector to unlock financial services for smallholder farmers through mobile phone. ■ Design of Kenya's Agricultural Sector Transformation and Growth Strategy 2019–2029: <ul style="list-style-type: none"> ■ e-voucher system for farmers. ■ Digitize extension services. ■ Design of Kenya's Youth Agribusiness Strategy 2017–2021: capacity building for youth through knowledge and information hubs, resource centers, tech-labs, ICT centers and mobile apps. 	<ul style="list-style-type: none"> ■ Creation of the Kenya Open Data Portal for access to key government data (including agricultural databases). ■ Innovation by vibrant private sector. ■ Launch of 14 mobile apps by KALRO to lower prices for consumers, contribute to smart agriculture. ■ Initiation of the Kenya Livestock Insurance Program. ■ Development and commercialization of the Ujuzi Kilimo soil kit through KENIA.
Morocco	<ul style="list-style-type: none"> ■ Creation of the Agency of Digital Development to promote the use of and investments in ICTs. 	<ul style="list-style-type: none"> ■ Liberalization and privatization of ICT sector. ■ Removal of all tariff barriers on ICT products. ■ Development of the <i>Note d'Orientation Generale</i> to expand universal access to broadband and high-speed broadband. ■ Design of the Digital Morocco Plan to encourage investments in broadband and high-speed broadband infrastructure, and to strengthen digital literacy. 	<ul style="list-style-type: none"> ■ Creation of a virtual network for best practice advice for farmers (ARDNA). ■ Creation of a soil fertility map for 8.8 million hectares. ■ Creation of a national system for animal identification and traceability using electronic technology. ■ Launch of two satellites with applications to monitor agricultural activities and environmental trends.

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Nigeria	<ul style="list-style-type: none"> ■ Creation of the Federal Ministry of Communications Technology in 2011. ■ Promotion of local manufacture, capacity development by the National Information Technology Development Agency. ■ Delivery of rural telephone and satellite broadband services by the Universal Access Division. ■ Creation of an e-Government Department to implement various e-Government projects, including e-agriculture. ■ Development of a national E-Agriculture Portal. 	<ul style="list-style-type: none"> ■ Design of a national ICT policy to create a conducive environment for rapid uptake of digital solutions in the agricultural sector. ■ Development of Guidelines for Nigerian Content Development in Information and Communications Technology. 	<ul style="list-style-type: none"> ■ Design of an eWallet program to manage delivery of fertilizer and seeds subsidies. ■ Entrepreneurship by private sector, e.g. Farmcrowdy, Hello Tractor, AFEX and Zenus. ■ Active and impactful public-private partnerships.
Rwanda	<ul style="list-style-type: none"> ■ Creation of the Rwanda Utilities Regulatory Authority in 2001 to regulate telecommunications, broadcasting, information technology and any other audio-visual ICTs. ■ Operation of four units dedicated to innovation, including one on digital transformation within the Ministry of ICT and Innovation. 	<ul style="list-style-type: none"> ■ Design of the National Information Communications Infrastructure policy in 2000 to achieve full digitization. ■ Implementation of new ICT law from 2016. ■ Inclusion of ICTs in National Agriculture Investment Plan 2018-2024. ■ Design of the National ICT Rwanda Agriculture (ICT4Rag) Strategic Plan (2016–2020) providing information to enhance productivity, and ICT-based agricultural commercialization. 	<ul style="list-style-type: none"> ■ Creation of 92 ICT centers to provide farmers with relevant information. ■ Construction of the Kigali Innovation City. ■ Development of several applications and platforms led by MINAGRI, and in partnership with FAO, MTN and World Bank.
Senegal	<ul style="list-style-type: none"> ■ Promotion of ICTs in all sectors of the economy through the Directorate of Information and Communication Technologies within the Ministry of Digital Economy and Telecommunications. ■ Creation of the <i>Agence De l'Informatique de l'État</i> (Government Digital Agency) in 2004 to increase use of ICTs within the Administration. ■ Creation of the Commission for the Protection of Personal Data in 2008. 	<ul style="list-style-type: none"> ■ Design of the Digital Senegal 2025 strategy in 2016 for easier access to information on prices, soil quality, weather and new farming techniques via mobile and internet. ■ Application of a universal service law in the telecommunication code, to finance and subsidize selected ICT services for the most marginalized and poor. 	<ul style="list-style-type: none"> ■ Creation of the Universal Telecommunication Service Development Fund (FDSUT) in 2007 to fund ICT service provisions by public agencies. ■ Active private sector and agtech startup participation.