RWANDA

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National Commitments and Targets

The ***National Commitments*** pathway aims to show what will happen if national commitments are met. This requires translating policy commitments into quantitative targets that can be modelled in the FABLE Calculator. Teams have reviewed key policy documents to set up these targets for the food and land use system (agricultural production and trade, climate, biodiversity, food security and dietary recommendations).

In some cases, policy commitments lack clear quantification. **FABLE teams have proposed quantitative targets that are derived or inspired from these national commitments. These are in the yellow column.**

Please provide your feedback regarding these quantitative targets using our **public consultation form.**

CODE	Policy area	Policy ambition	FABLE team's proposed quantitative national targets	Justification and references
1	**FOOD**			
1a	Food	Undernourishment	Reduction from 33% in 2020 to 19% by 2024.	Challenges in the food systems result in poor nutritional, livelihood, and environmental outcomes – high levels of undernourishment, leading to negative health outcomes such as stunting (33% of children under-five) – (DHS-2019-20). While the rates of wasting and stunting among children under five years has steadily decreased since the early 2000s, undernourishment in the general population has risen from 22.2% in 2012 to 35.6% in 2020. In its National Strategy for Transformation (NST1), Rwanda has set the goal of eradicating malnutrition through enhanced prevention and management of all forms of malnutrition, including stunting reduction from 33% in 2020 to 19% by 2024. *Pathways for Rwanda's Food Systems Transformation in Support of the SDGs 2030 Agenda* *Rwanda's Prime Minister Office. 7 Years Government Programme: National Strategy for Transformation (NST1)*
1b	Food	Overweight / obesity	Reduce overweight and obesity in adults to below 17% by 2024.	Even though obesity rates in Rwanda are ~20% lower than average global and Africa rates, obesity in adults and children has been rising steadily by ~1-2% annually.

				Rwanda's Ministry of Health. *Fourth Health Sector Strategic Plan* *(June 2018 – June* 2024) *Diagnostic and Landscaping Analysis by the Food System Transformative Integrated Policy (FS-TIP) Initiative.* *Accelerating Rwanda's Food Systems Transformation*
1c	Food	Diet-related disease	No national targets available for index but regional Malabo declarations on food safety health index target 50% reduction in food borne diseases incidence by 2024.	*Diagnostic and Landscaping Analysis by the Food System Transformative Integrated Policy (FS-TIP) Initiative.* *Accelerating Rwanda's Food Systems Transformation*
1d	Food	Other food related targets	-	
2	**CLIMATE MITIGATION**			
2a	Climate mitigation	Total GHG emissions reduction (by Gas or in CO2e - if in CO2e indicate what is the global warming potential factor used to convert non-CO2 emissions into CO2-)	Reducing greenhouse gas emissions by 38% by 2030 compared to business as usual, equivalent to an estimated mitigation of up to 4.6 million tonnes of carbon dioxide equivalent (tCO2e).	In Rwanda's climate action plan, its total emissions are forecasted to more than double over 2015-2030 period rising from 5.3 million tGgCO2eq in the base year to 12 million tGgCO2eq in 2030 under business-as-usual projection and it aims to reduce these emissions by 16%. However, subject to technical and financial support, it could reduce its total emissions by 4.6 million tonnes of CO2. Recently, Rwanda has submitted its revised NDC, in which the country has committed a GHG emissions reduction target of 38 % from the BAU levels projected from 2015. In this BUR, the BAU emissions were updated based on the latest GHG inventory and the projections were conducted from 2019 through 2030, taking 2018 as a base year. Reducing these emissions by 38% will come through improvements in energy production and use, industrial processes and product use, waste management, transport, and agriculture as well as new nature-based conservation initiatives. *Republic of Rwanda (2021).* *Rwanda's First Biennial Update under the United Nations Framework Convention on Climate Change*
2b	Climate mitigation	Agriculture GHG emissions reduction	Agriculture is expected to account for 49% of the total reduction potential of 4.6 M tCO2e by 2030.	In 2015, agriculture (excluding forestry) contributed 55% of GHG emissions, followed by energy (31%), waste (12%) and industrial processes/products (2%). The targeted emissions reduction (which implies ~466-688 Kg CO2e per capita in 2030) is challenging to attain without tradeoffs on other goals e.g., fertilizer use, livestock

				production, processing. Impacts and tradeoffs will need to be addressed across programs to ensure sustainable healthy dies for all. *Rwanda's Updated Nationally Determined Contribution.* *Diagnostic and Landscaping Analysis by the Food System Transformative Integrated Policy (FS-TIP) Initiative. Accelerating Rwanda's Food Systems Transformation*
2c	Climate mitigation	Land use and land use change GHG emissions reduction	Sustainable intensification of agriculture: 100% of the households involved in agriculture production will be implementing agroforestry sustainable food production by 2030.	Mainstreaming agroecology techniques using spatial plant stacking as in agroforestry, kitchen gardens, nutrient recycling, and water conservation to maximize sustainable food production. In addition, Rwanda intends to mainstream agroecology technologies in its current agriculture intensification program and other natural resource-based livelihood programs. 100% of the households involved in agriculture production will be implementing agroforestry sustainable food production by 2030. *REMA (2021), Rwanda State of Environment and Outlook Report 2021, Kigali, Rwanda.*
2d	Climate mitigation	Reduce or halt deforestation	No quantitative national target	The Government of Rwanda set a target of increasing the national forest cover from the present 10 per cent to 30 per cent of the national territory by 2020. To reach this target, there is a need to combine efforts to increase the number of existing protected forests and increase the new tree plantations. *Rwanda Environment Management Authority (REMA)*
2e	Climate mitigation	Other climate mitigation related targets	Target a total area of 200,000 ha for agroforestry	Agroforestry trees planting is expected to sequester around 1.8 million tonnes of CO eq. annually at an average of 9 tonnes/ha/year50 for the target total area of 200,000 ha. *Ministry of Lands and Forestry. Water and Forestry Authority. Forest investment program for Rwanda. (2017): Forest Investment Program for Rwanda*
3	**BIODIVERSITY**			
3a	Biodiversity	Reduce or halt loss of natural ecosystems	There is no current quantitative target. Rwanda had committed to safeguard at least 50 percent of natural ecosystems, and significantly reduce their degradation and fragmentation by 2020.	Natural ecosystems and their biodiversity constitute our natural capital. Thus, Rwandan economic prosperity will depend on how we maintain and enhance our assets, including natural capital. *Rwanda's National Biodiversity Strategy and Action Plan*

RWANDA

3b	Biodiversity	Promote afforestation	Rwanda's target is to achieve an overall 30% sustained forest cover of the total national land surface by 2030, from 28.8% in 2013.	Rwanda intends to use mixed-species approaches which contribute greatly to the achievement of both mitigation objectives and adaptation benefits of ecosystem resilience and biodiversity. *Republic of Rwanda (2017): Forest Investment Program for Rwanda.*
3c	Biodiversity	Expand protected areas or 'Other effective area-based conservation measures' (OECMs)	37.7 % of Rwanda's surface has to be set aside for conservation purposes.	Rwanda has nine Protected Areas covering a land area of 232,000 ha, about 9.11 % of the country (UNEP-WCMC 2021). The land use balance sheet 2050, in the proposed National Land Use and Development Master Plan 2020-2050, has set 37.7 % of the country's surface to be set aside for conservation purposes. This is expected to meet the global set targets of 27 percent as stipulated by the SDGs (RoR, 2020a). *REMA (2021), Rwanda State of Environment and Outlook Report 2021, Kigali, Rwanda.*
3d	Biodiversity	Expand cropland area under agroecological practices	-	
3e	Biodiversity	Reduce or halt use of agrochemicals and other agricultural practices that harm biodiversity	-	-
3f	Biodiversity	Other biodiversity related targets	-	-
4	**NITROGEN & PHOSPHOROUS**			
4a	Fertilizer use	Limit N use	N/A	N/A
4b	Fertilizer use	Limit P use	N/A	N/A
4c	Fertilizer use	Other N and P related targets	"Enhance farmers' access to improved seeds, from 52% (2016) on consolidated sites to 75% by 2024 and fertilizers application	Rwanda's fertilizer consumption reached nearly 60,000 tonnes of fertilizer in 2015 from just above 4,000 tonnes in 1998. In addition, the expected market for all fertilizers is forecast to increase from the current 32,200 metric tons per year to approximately 48,000 metric tons per year by 2019. Furthermore, the Government of Rwanda's

			(kg/ha/annum) from 32 kg/Ha (2016/17) to 75kg/ha by 2024"	interventions have resulted in a significant increase in nationwide fertilizer usage, from a meager 6,000 metric tons in 2006 to 32,200 metric tons in 2012. This growth represents an annual increase of 32% and a market valued at $31 million in 2012. During this same period, penetration rates among farmers increased from 14 to 29%. Farmers have learned to understand and use a variety of fertilizers in this time — DAP, NPK (17-17-17), and Urea for staple crops and NPK (25-5-5) and NPK (20-10-10), for cash crops. Most importantly, the increased use of fertilizer has significantly improved crop yields. *The Business Case for Investing in the Import and Distribution of Fertilizer in Rwanda. Document prepared by Monitor Group for the Rwanda Ministry of Agriculture and Livestock under the auspices of the USAID's Feed the Future (FtF) program.* *National Strategy for Transformation*
5	**WATER**			
5a	Water	Limit water use	"Rwanda does not have a quantitative target to reduce the consumption of water"	Despite the constraints of unequal distribution which influence the availability and use of water in the nine catchments, the country is endowed with reserves that could provide enough water for Rwanda (MINIRENA-RNRA, 2015). However, only less than ten percent of the available water resources are used (RWB, 2021a). The two main water users in Rwanda are the agriculture and domestic sectors. In general, the demand for water resources and competition for water uses between various economic sectors are increasing. In 2012 the water use and availability ratio were less than five percent and it increased to nine percent in 2019. Water withdrawal in 2019 was 608,2 million m3/year (RWB, 2021a). During this period, the estimated water uses and availability ratio for the Muvumba catchment was 33.7 percent followed by Akagera Upper catchment with a ratio of 16.3 percent (RWB, 2021a). These ratios are attributed to the presence of large-scale irrigation in these catchments. Irrigation was the leading consumptive water use, followed by domestic water use. *REMA (2021), Rwanda State of Environment and Outlook Report 2021, Kigali, Rwanda.*
5b	Water	Other water related targets	N/A	
6	**ECONOMY**			

RWANDA

6a	Economy	Self-sufficiency	Rwanda remains committed and indeed works towards ending hunger, one of the UN Sustainable Development Goals by 2030, all the efforts being invested in agriculture seem to converge towards this zero-hunger goal.	The National Strategic Reserve had 10,000 metric tonnes of maize and 5,000 tonnes of beans in 2017. That is projected to increase to 49,500 metric tonnes of maize and 18,600 tonnes of beans by 2024, according to the country's fourth Strategic Plan for Agriculture Transformation (PSTA4). Rwanda has seen a significant improvement in its food security status, with statistics from the 2018 Comprehensive Food Security and Vulnerability Analysis (CFSVA) showing that 81.3 per cent of its population is food secure. The findings showed that 18.7 per cent of the country's households, approximately 467,000 households, were found to be food insecure. *United Nations - Rwanda's commitment to food security*
6b	Economy	Farmers' income	Percentage increase in agricultural production measured by production volumes and fixed prices in 2014, with a target increase of 10% in 2024.	At the household level, on average, the Tropical Agriculture Platform (TAP) had a positive impact on coffee farmers' household assets and incomes sourced from coffee. Farmers' coffee income increased by 32 per cent, whereas total crop income increased by 28 per cent. The increased income was reflected in an 11 per cent increase in overall assets, consisting of livestock assets (20 per cent increase), durable assets (17 per cent increase) and a housing asset index (3 per cent increase). In addition, farmers' horticulture income increased by 93 per cent for those whose business ideas were selected by NAEB, and by 540 per cent for those who received performance-based grants. *Rwanda Project for Rural Income through Exports (PRICE)*
6c	Economy	Agricultural exports	An export growth of 28% per year	With 22% of annual growth rate in export crops as a subsector of agricultural GDP, additional annual growth rate in agricultural GDP and total GDP is 0.71 and 0.57 percentage points respectively. Considering its small share in GDP, the growth impact of the export crop is impressive particularly for the overall economic growth. From its initial size of only 1.3 percent GDP and after tripling the growth rate of export agriculture. *Rwanda's 2nd Economic Development and Poverty Reduction Strategy (EDPRS-2, 2013-18)*
6d	Economy	Timber exports	Not found	Not found

RWANDA

6e	Economy	Employment in agricultural sector	Agriculture's share of total employment will continue to fall (given structural transformation). However, there are still projected to be around 60 – 80,000 new entrants each year into agriculture	To this end, the share of agriculture in employment has decreased from 88.6 per cent in 2001 to 68 per cent by 2014. Most of the labor force in agriculture is composed of independent farmers (65 per cent), while hired wage farmers represent 35 per cent. Women constitute 66 per cent of the agricultural work force. *Rwanda's Strategic Plan for Agriculture Transformation (PSTA) (2018-2024)*