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Analysis of Priority Actions for Food Systems Transformation-Dominican Republic

Introduction

There is a global consensus that most food systems are unsustainable: they generate food insecurity and hunger, malnutrition (from stunting, wasting, micronutrient deficiencies to obesity), environmental degradations (natural resources depletion, climate change, and biodiversity loss), and inequalities and vulnerabilities among territories and food stakeholders. A transformation toward more sustainable, inclusive and resilient food systems is urgently needed, and the identification of ad hoc levers to implement this transformation strategic.

On the one hand, the <u>National Pathways</u> to sustainable food systems are one of the outcomes generated by the UN Food Systems Summit (UNFSS). They have been informed by national dialogues organized during the preparation of the Summit. It should not be assumed that these pathway documents are final or endorsed by the respective government as <u>most countries</u> approach their pathway as 'living documents', but they still give a picture of the priorities.

On the other hand, under a partnership between the European Union, FAO, and CIRAD, and in cooperation with national and food systems stakeholders, country level <u>Food Systems Assessments</u> are being conducted, at different level of completion, in more than 50 developing countries.

Both National Pathways (NP) and Food Systems Assessments (FSA) profiles have identified country specific priority actions for the transformation of food systems.

The ambition of this synthesis report is to provide the comprehensive list of these priority actions in a condensed format that helps to gain an overview of the main results of both approaches and allows to some extent a comparison.

Methodological Approach

This synthesis report is developed using a three steps approach:

- First, screening NP and FSA reports and extraction of the priority actions. In the National Pathways, the priority actions are called "game changers" and grouped around five "actions tracks" (i.e. thematic areas) defined in the frame of the UNFSS. In the FSA, the priority actions are called "systemic levers" and are grouped around four thematic areas. Notwithstanding these differences, it remains possible to extract from these documents "priority actions" and group them around the five "actions tracks";
- > Second, reformulation, simplification and grouping of NP and FSA priority actions and classification according to the UNFSS five action tracks (Tables 2 and 3). These tables are displayed below to keep trace in a systematic and transparent way of the modifications performed during this step;

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➤ Third, overview in a single table of the NP and FSA priority actions per action track (Table 1).

Table 1: Summary of Priority Actions for Food Systems Transformation in Dominican Republic

UNFSS	FSA	ority Actions for Food Systems Transformati UNFSS – National Pathway –	Food Systems Assessment –
ONFSS	PJA	Priority Actions	Priority Actions
AT1 Ensure safe and nutritious food for all	Food security, nutrition and health	 Agricultural production planning. Strengthen extension services (improved storage, good agricultural practices). Improve access to agricultural inputs (including planting materials, seeds). Promote homegrown food (facilitating inputs, technical assistance and training), including in urban settings (vertical garden, balconies, roofs, etc.). Strengthen food safety (agricultural quarantine, surveillance of pest and disease). 	 Improve access to extension services. Invest in productive and social infrastructure in rural areas (e.g. hydraulic infrastructure).
AT2 Shift to sustainable consumption patterns	Food security, nutrition and health	 Strengthen education on nutrition (schools, universities). Awareness campaigns on healthy diets (including on food labelling). Regulation and taxation of unhealthy foods. Adopt food labelling regulation (detailed information on nutritional value in Spanish). Promote food fortification. Strengthen school feeding programme. Develop healthy food production in schools. 	 Promote consumption of local and nutritious food. Strengthen the implementation of the legal framework related to food promotion and standards. Strengthen the capacity of regulatory bodies for food standards.
AT3 Boost nature positive production	Sustainable natural resource use and environment	 Promote organic and regenerative agriculture. Promote sustainable agriculture (Good Agricultural Practices; Good Manufacturing Practices; Integrated Pest Management and Integrated Crop Management). Promote sustainable livestock farming (silvopastoralism) and disincentivize livestock farming in water catchment areas. Promote beekeeping. Eliminate slash-and-burn agriculture and prohibit the burning of agricultural residues. Introduce payments for ecosystem services. Raise public awareness on natural resources conservation. 	 Implement an agroecological risk zoning. Develop and promote the use of Good Agricultural Practices. Promote the adoption of sustainable technologies and production systems (crop diversification, efficient irrigation systems, integrated pest management, organic fertilisers). Support agroforestry and silvopastoralism, especially in mountainous areas Regulations for agro-industries: use of resources and energy, waste management, harmful emissions. Promote ecotourism.
AT4 Advance equitable livelihoods	Inclusive economic growth, jobs and livelihoods; Territorial development	 Set-up collection, storage, packaging centres for food products. Improve access to finance and markets, especially for small and medium size farmers, women and youth. Capacity building on plant health, animal health, safety and hygiene for export markets. Support short-marketing circuits. Give priority to agricultural SMEs and smallholder farmers in public food purchase (school feeding programmes, poverty relief). 	 Support short marketing circuits. Improve access to credit for smallholder farmers. Secure land tenure rights for smallholder farmers. Support farmer associations / cooperatives.

	AT5 Build resilience to vulnerabilities, shocks, and stresses
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- Strengthen agricultural information system (census, survey, statistics), including on climate change impact, and develop market intelligence.
- Capacity building of meteorological stations in data collection (coverage, quality, digitalisation of data).
- Strengthen early warning systems for drought and floods.
- Establishment of prevention and response plans to extreme weather events.
- Develop climate-smart agriculture: adapt type of crops and crops calendar, improve efficiency of irrigation systems (e.g. lining of canals), raising awareness on water use efficiency, capacity building, alternative feeding, soil conservation practices.
- Strengthen research on climate change and agriculture (e.g. adaptation capacity of breeds and plants, low-emission livestock farming).
- Develop climate risk insurance for smallholder farmers.
- Approval of Land Use Planning Law.
- Develop crop suitability maps.
- Promote the use of renewable energies in the agricultural sector.
- Improve water legal and institutional framework (adoption of water law, implementation of the National Hydrological Plan, introduction of water fees).
- Improve water availability (improved maintenance of existing dams, rivers and streams, construction of new water storage infrastructure, planting of bamboo).
- Invest in water sanitation.
- Invest in recreational infrastructure to promote physical activities (healthy life style).

• Improve food systems governance (involve smallholder farmers).

Source: KC-FNS, 2023

Table 2: Priority Actions - Food Systems Assessment (FSA)

Thematic Areas		FSA - Priority Actions (Systemic levers)		FSA - Reformulation Priority Actions	Link to AT	Comment
Addressing the double burden of malnutrition: high prevalence of chronic malnutrition in children and obesity in adults	1	Promote the demand for national products with a high nutritional content (involving farmer associations). This seeks to have a positive impact on consumption habits based on local production, promoting local (short) marketing circuits.	1.1	Promote consumption of local and nutritious food.	2	
	``		1.2	Support short marketing circuits.	4	
		Improve the implementation of existing legal framework related to food promotion and consumer information, particularly with regard to processed products. It is also important to improve the conditions and scope of regulatory bodies for standards and consumer defence.	2.1	Strengthen the implementation of the legal framework related to food promotion and standards.	2	
Addre malnutrit malnutri	7		2.2	Strengthen the capacity of regulatory bodies for food standards.	2	
					4	
g				Improve access to credit for smallholder farmers.	4	
farmin	3	Improve access to credit, access to extension services, secure land tenure rights for smallholder farmers. Involve smallholder farmers and their organisations in decision-making.	3.2	Secure land tenure rights for smallholder farmers.	4	
amily			3.3	Improve access to extension services.	1	
Supporting family farming			3.4	Improve food systems governance (involve smallholder farmers).	5	
Supp	4	Strengthen the bargaining power of small-scale family farmers by promoting organizations of producers (improved access to market and means of production).		Support farmer associations / cooperatives.	4	
					5	
Addressing territorial imbalances	5	Make sustained and equitable investments in productive and social infrastructure in lagging rural areas (involving local actors in prioritisation).		Invest in productive and social infrastructure in rural areas (e.g. hydraulic infrastructure).	1	5, 6.4 grouped
					1	
ontext		Improve sustainable management of water and soil resources: - establishing a zoning of crops based on environmental risks; - developing and promoting the use of Good Agricultural Practices (BPA); - supporting agroforestry and silvopastoralism, especially in	6.1	Implement an agroecological risk zoning.	3	
on in a c			6.2	Develop and promote the use of Good Agricultural Practices.	3	
gradatio			6.3	Support agroforestry and silvopastoralism, especially in mountainous areas.	3	
/ater) de hange		mountainous areas; - building or rehabilitating hydraulic infrastructure.	6.4	Build or rehabilitate hydraulic infrastructure.		grouped with 5
Addressing natural resources (soil, water) degradation in a context of climate change	Promote the adoption of technologies and sustainable production systems: - for smallholder farmers: promote crop diversification, soil conversation measures, small-scale irrigation systems;	7.1	Promote the adoption of sustainable technologies and production systems (crop diversification, efficient irrigation systems, integrated pest management, organic fertilisers).	3		
	7	ecotourism; - for medium to large-scale producers: promote integrated pest management, climate-smart agriculture (semi-automated irrigation systems), organic fertilisers; - for agro-industrial companies: increase efficiency in the use of resources and energy, improve waste management, reduce emissions.	7.2	Regulations for agro-industries: use of resources and energy, waste management, harmful emissions.	3	
Addressir			2.3	Promote ecotourism.	3	
					6	
Т	otal	7			16	

Source: KC-FNS, 2023

Table 3: Priority Actions - UNFSS National Pathway

nematic Areas		National Pathway - Priority Actions (Game changers)	Na	ational Pathway - Reformulation Priority Actions	Link to AT	Comment
	П	Identify production needs, with the proper registration and/or scheduling of planting and harvesting to satisfy the demand for food and for exports.		Agricultural production planning.	1	1, 5 grouped
	2	Carry out the agricultural census.		Strengthen agricultural information system (census, survey, statistics), including on climate change impact, and develop market intelligence.	5	2, 6.3, 15 54 grouped
	8	Set-up collection and storage centres for food products and train producers on improved storage.	3.1	Set-up collection, storage, packaging centres for food products.	4	3.1, 14 grouped
			3.2	Strengthen extension services (improved storage, good agricultural practices).	1	3.2, 4.2 grouped
		Strengthen plant breeding and diffuse good practices	4.1	Improve access to agricultural inputs (including planting materials, seeds).	1	4.1, 6.1 grouped
	4	for the use of seeds and technologies to improve quality.	4.2	Train producers on good practices.		grouped with 3.2
	5	Planning and organization of food production according to the capacity of the local and regional market.				grouped with 1
		Supporting primary production: access to inputs, access to finance, especially for smallholder farmers, women and youth. Carry out a survey to quantify needs and to prioritize actions to guarantee greater production of food items.	6.1	Improve access to agricultural inputs.		grouped with 4.1
or all	9		6.2	Improve access to finance and markets, especially for small and medium size farmers, women and youth.	4	6.2, 13, 1 grouped
food fo			6.3	Carry out agricultural survey.		grouped with 2
Ensure access to healthy and nutritious food for all	7	Create strategic alliances between small, medium and large processors to add value to perishable products.				Not selected Not specific
healthy an	8	Work on food production, including (among others) guidelines aimed at strengthening family farming.				Not selected Not specific
e access to	6	Strengthen professional capacities for export markets: plant health, animal health, safety and hygiene of food.		Capacity building on plant health, animal health, safety and hygiene for export markets.	4	эрсене
Ensure	10	Provide guidance to producers in terms of marketing to guarantees better prices and the reduction of intermediaries.		Support short-marketing circuits.	4	
	11	Continue strengthening activities related to agricultural quarantine and ensure surveillance of pests and diseases.		Strengthen food safety (agricultural quarantine, surveillance of pest and disease).	1	
	12	Develop actions aiming at increasing production efficiency, quality, supply and national food security.				Not selected Not specific
	13	Provide access to land, finance and markets to producers.				grouped with 6.2
	14	Construction of post-harvest facilities (collection, washing and packaging centres).				grouped with 3.1
	15	Strengthening production and consumption statistics) and developed market intelligence.				grouped with 2
	16	Give priority to agricultural SMEs in State purchases and contracts (poverty relief and school feeding programmes).		Give priority to agricultural SMEs and smallholder farmers in public food purchase (school feeding programmes, poverty relief).	4	16, 30 grouped
	17	Provide soft financing (credits), with due technical support, to small and medium producers of crops with high potential for growth.				grouped with 6.2
	18	Prepare a climate risk financing strategy and protect smallholder producers with insurance.		Develop climate risk insurance for smallholder farmers.	5	

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	19	Promote home-grown food (facilitating inputs, technical assistance and training).		Promote home-grown food (facilitating inputs, technical assistance and training), including in urban settings (vertical garden, balconies, roofs, etc.).	1	19, 46 grouped
					12	
	20	Reinforce food education from the primary or basic level.		Strengthen education on nutrition (schools, universities).	2	20, 23.1 grouped
	21	Awareness of food suppliers on diet related issues.		Awareness campaigns on healthy diets (including on food labelling).	2	21, 22.2, 23.3, 26.1, 27.2 grouped
		Implement public policies to ensure that the entire population has a good base of information before choosing and consuming food, and work on policies related to those foods that contain little nutritional value, so that the quantity or some of their ingredients are regulated, especially those that negatively affect people's health (sugar, salt, additives, among others).	22.1	Regulation and taxation of unhealthy foods.	2	22.1, 26.2 grouped
nent	22		22.2	Awareness raising on nutrition.		grouped with 21
developi		Design and implement public policies to control the adequate use of foods rich in carbohydrates, saturated	23.1	Strengthen education on nutrition.		grouped with 20
l social c	23	fats and proteins. Nutritional education at home, schools and universities. Carry out awareness	23.2	Regulation of unhealthy foods.		grouped with 22.1
man anc		campaigns in all available media on the importance of consuming a healthy diet.	23.3	Awareness campaigns on healthy diets.		grouped with 21
llar in hui	24	The fortification of food (e.g. rice) is an initiative that contributes to reducing the levels of malnutrition in the country.		Promote food fortification.	2	
and nutrition of the population as a key pillar in human and social development	25	The provision of suitable public recreational spaces to promote physical activities and fight sedentary behaviour.		Invest in recreational infrastructure to promote physical activities (healthy life style)	5	
ulation	26	Educate the population about the information on the labelling of products and implement other measures to influence the choice of healthy food (e.g. placing taxes on products that are not nutritious).	26.1	Awareness campaigns on food labelling.		grouped with 21
the pop			26.2	Taxation of unhealthy food.		grouped with 22.1
rition of		Adoption of a National Plan for food labelling (detailed information on nutritional value in Spanish), together with a nutritional education plan for the population.	27.1	Adopt food labelling regulation (detailed information on nutritional value in Spanish).	2	
and nut			27.2	Educate the population on food labelling.		grouped with 21
Diet	28	Design and implement the necessary actions for food security and nutrition, strengthening cooperation between public and private organisations.				Not selected - Not specific
	29	A nutritious and balanced school meal is key to instilling healthy habits from an early age. Reinforce	29.1	Strengthen school feeding programme.	2	
	7	school feeding programs to modify eating habits, and develop orchards in schools.	29.5	Develop healthy food production in schools.	2	
	30	Encourage public purchase of school meals from local producers to improve the nutritional quality of school meals and to promote short marketing circuits and offer a stable market access to smallholder producers, thus strengthening their livelihoods.		Support public purchase of school meals from local producers.		Grouped with 16
					8	
act on n	1	Better coordination between public institutions that work on climate change, establishment of prevention and response plans to extreme hydro-meteorological events, strengthening of early warning systems for drought and floods.	31.1	Establishment of prevention and response plans to extreme weather events.	5	
nd its imp productio	31		31.2	Strengthen early warning systems for drought and floods.	5	31.2, 33 grouped
Climate change and its impact on agricultural production	32	Increase the capacity of meteorological stations in data collection (coverage, quality, digitalisation of data).		Capacity building of meteorological stations in data collection (coverage, quality, digitalisation of data).	5	32, 34 grouped
Clim	33	Improve early warning systems and climatic systems.		Improve early warning systems.		grouped with 31.2

34	Establish a digital bank of climate information to improve analytical expertise.				grouped with 32
35	Approval of the Water Law / Adopt measures related to water management to protect hydrographic basins.		Improve water legal and institutional framework (adoption of water law, implementation of the National Hydrological Plan, introduction of water fees).	5	35, 36.2, 38.2, 39 grouped
36	Maintenance and cleaning of dams to improve water storage, planting of bamboo to contribute to water retention, and introducing water fees to incentivize a		Improve water availability (improved maintenance of existing dams, rivers and streams, construction of new water storage infrastructure, planting of bamboo).	5	36.1, 37.1, 40.1 grouped
	better use.	36.2	Introduction of water fees.		grouped with 35
	Create measures aimed at increasing the supply or availability of water through the construction of new hydraulic infrastructure such as wells, dikes and dams; Implement measures aimed at reducing or managing	37.1	Invest in new water storage infrastructure.		grouped with 36.1
37	the demand for water, including measures to change crops and crops calendar, as well as measures of a structural nature such as the lining of canals; Implement measures aimed at achieving improvements in the legal and institutional framework. Emphasis was placed on improving the efficiency of irrigation systems.	37.2	Develop climate-smart agriculture: adapt type of crops and crops calendar, improve efficiency of irrigation systems (e.g. lining of canals), raising awareness on water use efficiency, capacity building, alternative feeding, soil conservation practices.	5	37.2, 38.1, 40.2, 51 grouped
		38.1	Raising awareness on water use efficiency and reduce the use of water in farming.		grouped with 37.2
38	Improve water sanitation; Raising awareness on water use efficiency; Reduce the use of water in farming; Implement the National Hydrological Plan.	38.2	Implement the National Hydrological Plan.		grouped with 35
	The second of th	38.3	Invest in water sanitation.	5	
39	Sustainably manage surface and groundwater (quality, availability, access, community management systems, governance, management of water stress indices, among others).				grouped with 35
40	Implement a system of adaptation and mitigation with lagoons, cleaning rivers, streams that serve as	40.1	Clean rivers and streams.		grouped with 36.1
4	sources of water for agriculture. Regulate rice cropping.	40.2	Regulate rice cropping.		grouped with 37.2
41	Approval of Land Use Planning Law.		Approval of Land Use Planning Law.	5	
42	Promotion of organic and regenerative agriculture to contribute to climate change mitigation; Develop crop suitability maps.		Promote organic and regenerative agriculture.	3	
4			Develop crop suitability maps.	5	42.2, 49.1 grouped
		43.1	Promote sustainable livestock farming (silvopastoralism) and disincentivize livestock farming in water catchment areas.	3	
43	Promote silvopastoralism, eliminate slash-and-burn agriculture, promote beekeeping.	43.2	Eliminate slash-and-burn agriculture and prohibit the burning of agricultural residues.	3	43.2, 50 grouped
		43.3	Promote beekeeping.	3	
44	Disincentivize livestock farming in mountainous areas (watersheds basins) and provide the necessary technologies and inputs for smallholder farmers in lower areas.				grouped with 43.1
45	Promote payment systems to producers for ecosystem services, and raise public awareness on land degradation, conservation and sustainable use of	45.1	Introduce payments for ecosystem services.	3	445.1, 53.2 grouped
4	protected areas, protection of natural ecosystems, restoration of degraded ecosystems.	45.2	Raise public awareness on natural resources conservation.	3	
46	Promote urban agriculture (vertical gardens, balconies, roofs).				grouped with 19

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	47	Implement the Global Action Plan against Climate Change, which includes measures for promoting the use of renewable energies in the agricultural sector.		Promote the use of renewable energies in the agricultural sector.	5	
	48	Promote Good Agricultural Practices (GAP); Good Manufacturing Practices (BPM); Integrated Pest Management (IPM) and Integrated Crop Management (MIC), in order to provide a framework for sustainable agriculture.		Promote sustainable agriculture (Good Agricultural Practices; Good Manufacturing Practices; Integrated Pest Management and Integrated Crop Management).	3	48, 49.2 grouped
	49	Reduce the impact of climate change through the following actions: crop suitability mapping, train	49.1	Develop crop suitability maps.		grouped with 42.2
	4	farmers to reduce the use of agrochemicals (e.g. glyphosate).	49.2	Train farmers for the reduction of agrochemicals.		grouped with 48
	50	Prohibit the burning of agricultural residues.				grouped with 43.2
	51	Capacity building in climate-smart agriculture, plants resistant to pests and diseases; Implement soil conservation techniques, alternative feeding for livestock.		Develop climate-smart agriculture (training, alternative feeding, adapted varieties, soil conservation practices).		grouped with 37.2
	25	Avoid indiscriminate deforestation, prevent and mitigate forest fires.		Fight deforestation and prevent forest fires.		grouped with 53.1
	_	Provide the Ministry of the Environment with an efficient agroforestry service. Capacity building of	53.1	Capacity building of Ministry of the Environment on forest management and agroforestry.		53.1, 52 grouped
	53	forestry agents; Remuneration for environmental services.	53.2	Introduce payments for ecosystem services.		grouped with 45.1
	54	Incorporate in National Statistics, statistics related to climate change (impact and adaptation).				grouped with 2
	55	Strengthen agricultural research and development on climate change and agriculture: pests, diseases and weeds; plant and animal genetic diversity and potential for adaptation; regeneration of hydrographic basins; techniques to reduce emissions from livestock farming and rice production.		Strengthen research on climate change and agriculture (e.g. adaptation capacity of breeds and plants, low-emission livestock farming).	5	
	95	Monitoring and updating of the instruments related to mitigating and adapting to climate change: i) National Plan for Adaptation to Climate Change in the Dominican Republic 2015-2030; ii) National Strategy for Adaptation to Climate Change in the Agricultural Sector of the Dominican Republic 2014-2020; iii) Plan for Prevention, Mitigation and Response to Drought in the Agricultural Sector of the Republic Dominican 2014-2020; iv) National Plan to Combat Desertification and Drought of the Ministry of the Environment.				Not selected - Not specific
					18	
Total		56			38	

Source: KC-FNS, 2023