



Food and Agriculture Organization
of the United Nations

SUSTAINABLE AGRICULTURE

Technical assistance for measuring and
monitoring progress towards select sustainable
development goal: sustainable agriculture
(SDG indicator 2.4.1)
(April 2021-December 2022)



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2 ZERO HUNGER



Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

TARGET 2.4

By 2030, ensure **sustainable** food production systems and implement **resilient** agricultural practices that increase **productivity** and **production**, that help maintain **ecosystems**, that strengthen **capacity for adaptation** to **climate change, extreme weather, drought, flooding** and other disasters and that progressively improve **land and soil** quality

SDG INDICATOR 2.4.1 (TIER II) :

Proportion of agriculture area under productive and sustainable agriculture

SDG Indicator 2.4.1 is defined as:

"Proportion of agricultural area under productive and sustainable agriculture"

which is expressed by the following formula:

SDG 2.4.1 = Area Under Productive and sustainable agriculture

Agricultural land area

- The **denominator** "Agricultural land area" corresponds to Land Use Classes-land under-temporary crops, temporary meadow & pastures, temporary fallow, permanent crops and permanent meadow & pastures
- The **numerator** is measured through 11 sub-indicators, each with its own set of criteria that determine whether a farm is "sustainable /desirable", "acceptable", or "unsustainable"
- It reflects the multiple dimensions of sustainability

Scope of the SDG Indicator 2.4.1

Using the **agricultural holding (farm)** as a unit helps to define the scope of the indicator in terms of **activities**.



Fisheries and **agroforestry** are also considered to the extent that they are part of the production systems, and provided they are not the main economic activity of the holding.

Included within the scope are all types of agricultural production systems, including:



























SDG 2.4.1 Framework

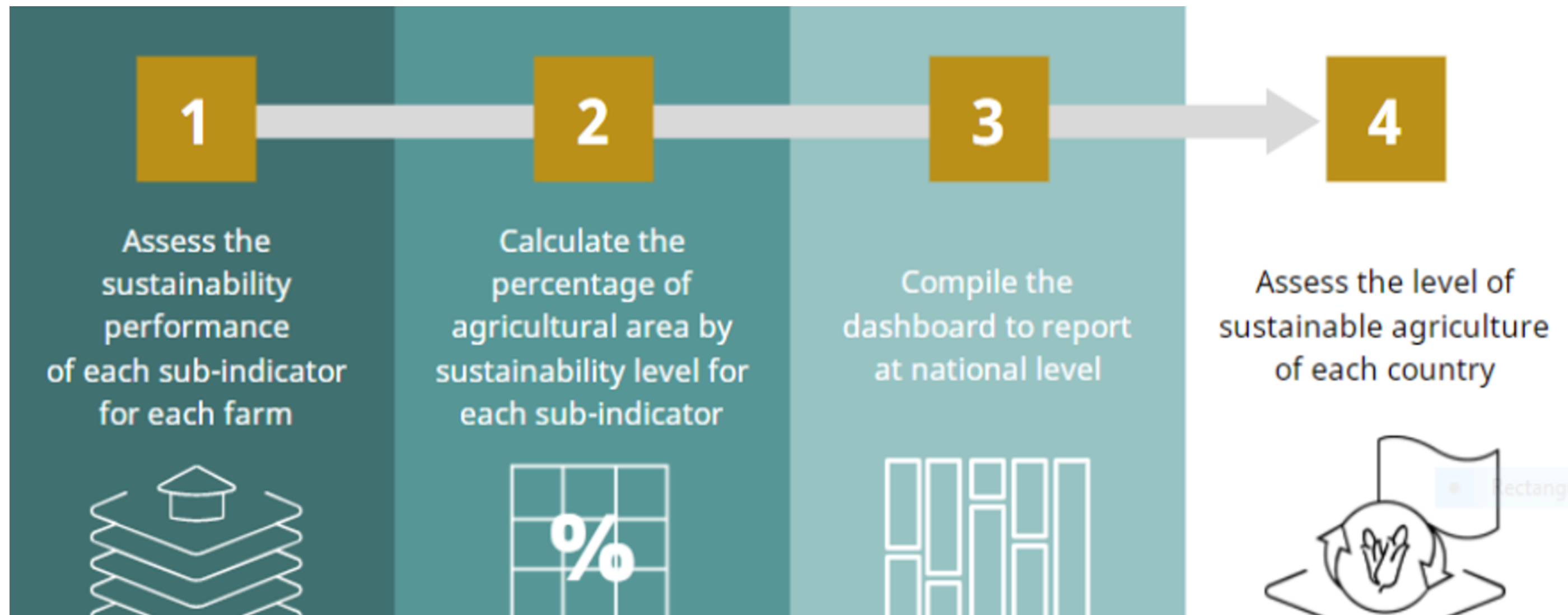
Dimension	Theme	Sub-indicator	Farm type	Reference period
Economic	1. Land productivity	Farm output value per hectare	All types	Last calendar yr.
	2. Profitability	Net farm income	All types	Last 3 calendar yrs.
	3. Resilience	Risk mitigation mechanisms	All types	Last calendar yr.
Environmental	4. Soil health	Prevalence of soil degradation	All types	Last 3 calendar yrs.
	5. Water use	Variation in water availability	All types	Last 3 calendar yrs.
	6. Fertilizer risk	Management of fertilizers	All types	Last calendar yr.
	7. Pesticide risk	Management of pesticides	All types	Last calendar yr.
	8. Biodiversity	Use of agro-biodiversity supportive practices	All types	Last calendar yr.
Social	9. Decent employment	Wage rate in agriculture	Farms hiring unskilled labour	Last calendar yr.
	10. Food security	Food Insecurity Experience Scale (FIES)	Household farms	Last 12 months
	11. Land tenure	Secure tenure rights to land	All types	Last calendar yr.

SDG Indicator 2.4.1 - 3 dimension - 11 themes - 11 sub-indicators

Economic	Environmental		Social
<p>1 - Land productivity </p> <p> Farm output value per hectare</p>	<p>4 - Soil health </p> <p> Prevalence of soil degradation</p>	<p>5 - Water use </p> <p> Variation in water availability</p>	<p>9 - Decent employment </p> <p> Wage rate in agriculture</p>
<p>2 - Profitability </p> <p> Net farm income</p>	<p>6 - Fertilizer pollution risk </p> <p> Management of fertilizers</p>	<p>7 - Pesticide risk </p> <p> Management of pesticides</p>	<p>10 - Food security </p> <p> Food Insecurity Experience Scale (FIES)</p>
<p>3 - Resilience </p> <p> Risk mitigation mechanisms</p>	<p>8 - Biodiversity </p> <p> Use of agro-biodiversity-supportive practices</p>		<p>11 - Land tenure </p> <p> Secure tenure rights to land</p>

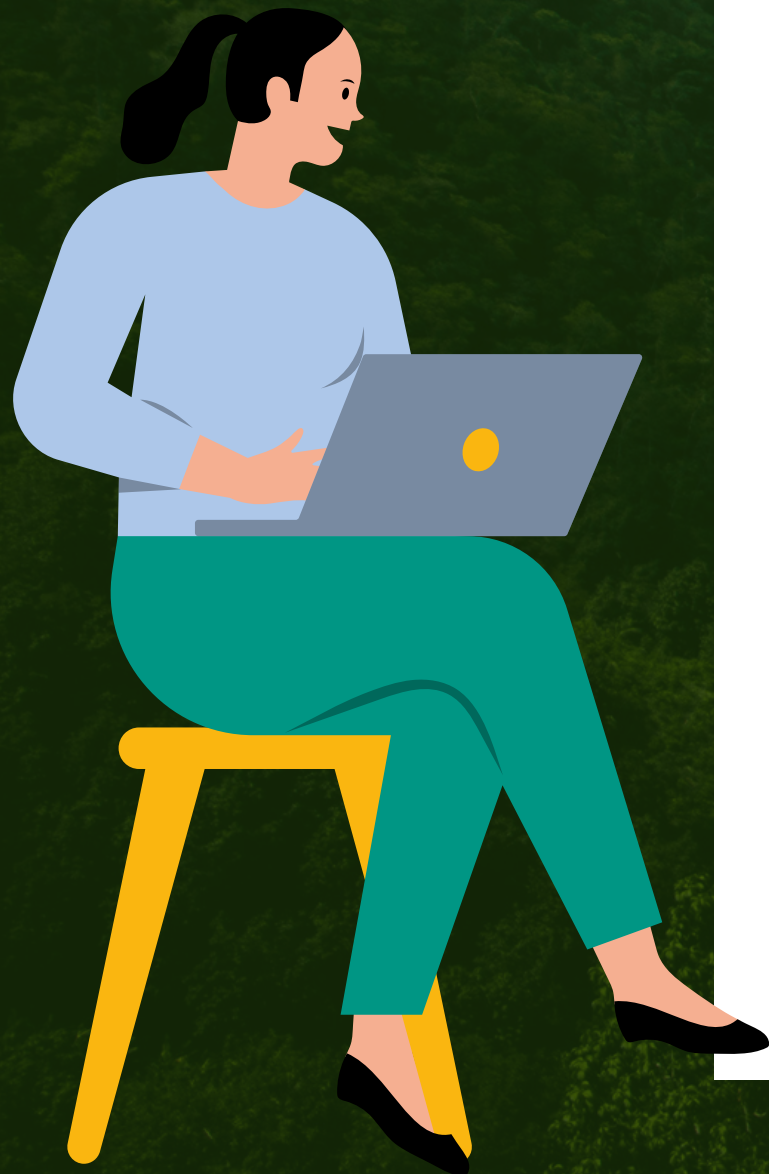
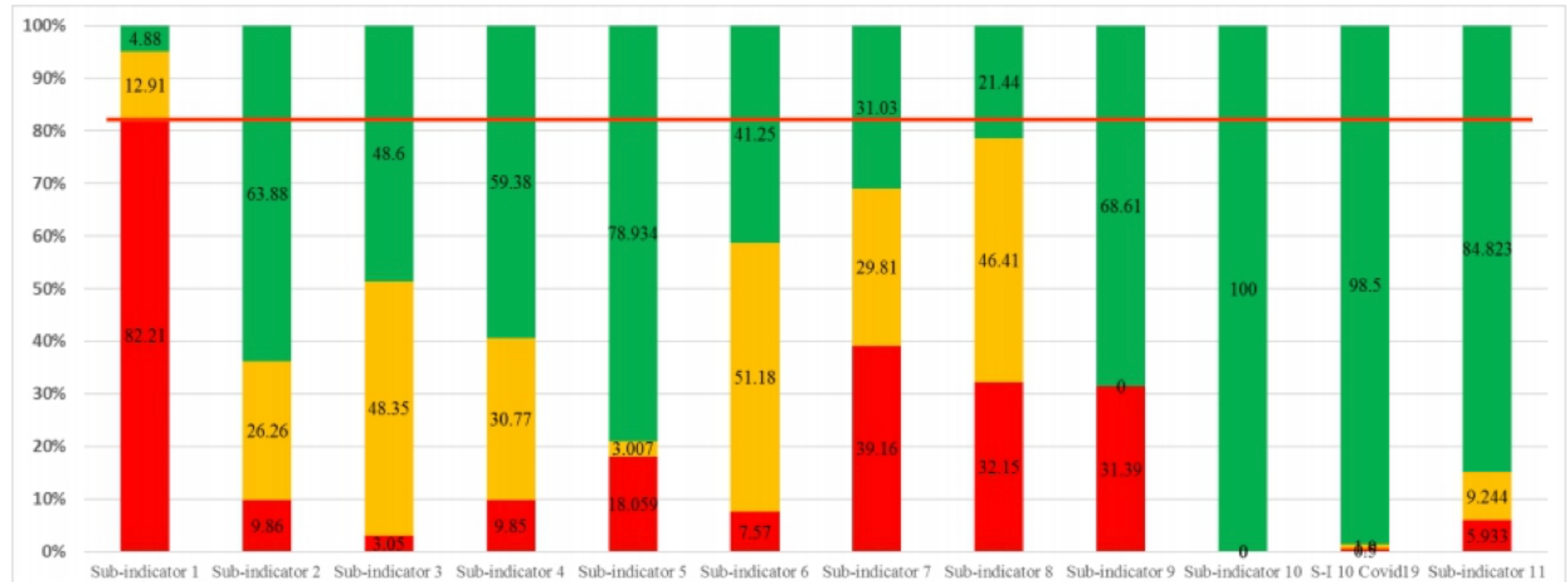


Steps to assess the country's agricultural area under sustainable agriculture



SDG 2.4.1 Dashboard

Sustainability status of the holding	Area associated with											
	Farm output value per hectare	Net farm income	Risk mitigation mechanisms	Prevalence of soil degradation	Variation in water availability	Management of fertilizers	Management of pesticides	Use of biodiversity-supportive practices	Wage rate in agriculture	FIES	FIES (COVID-19)	Secure tenure rights to land
Desirable	4.88	63.88	48.60	59.38	78.93	41.25	31.03	21.44	68.61	100	98.53	84.82
Acceptable	12.91	26.26	48.35	30.77	3.01	51.18	29.81	46.41	0.00	0	1.01	9.24
Unsustainable	82.21	9.86	3.05	9.85	18.06	7.57	39.16	32.15	31.39	0	0.46	5.93



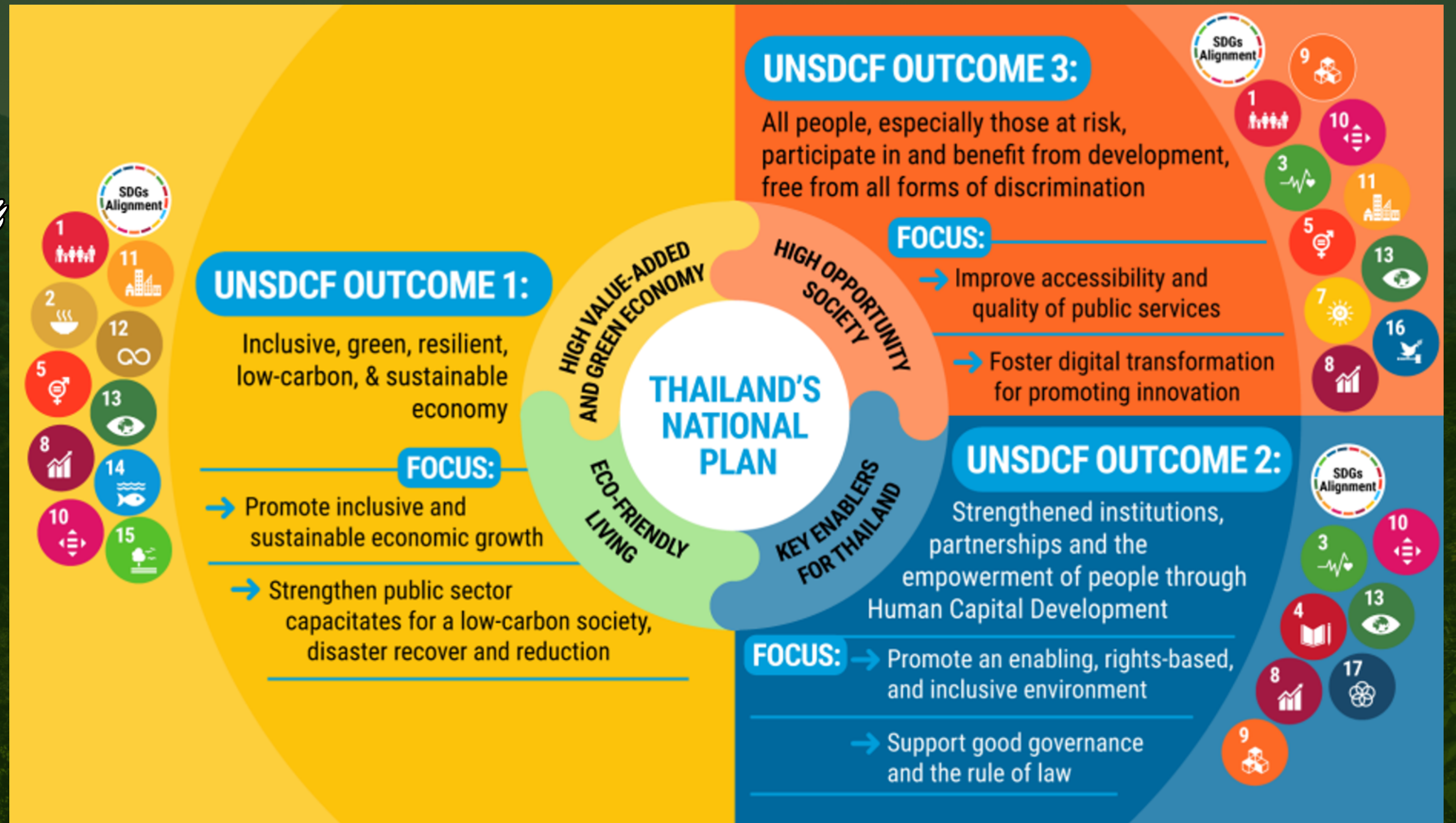
FAO regional training on SDG Indicator 2.4.1 29- 30 June and – 1 July 2021 (3 half days)

Thailand-Virtual Technical Training: SDG Indicator 2.4.1 (8-10 November 2021)



Sub-indicators	Organizers/Agencies
1. Farm output value per hectare	OAE
2. Net farm income	OAE
3. Risk mitigation mechanisms	
4. Prevalence of soil degradation	LDD
5. Variation in water availability	RID
6. Management of fertilizers	
7. Management of pesticides	DOA
8. Use of agro-biodiversity supportive practices	
9. Wage rate in agriculture	OAE
10. Food Insecurity Experience Scale (FIES)	
11. Secure tenure rights to land	DOAE

UN Sustainable Development Cooperation Framework



Results Framework

3 Outcomes

6 Focus Areas

30 Indicators

ANNEX 1: RESULTS FRAMEWORK

Outcome	Focus Area	Indicator	Baseline Value	Target ^(a) Value	Data Source	Data Availability
Outcome 1: Thailand's transformation into an inclusive economy based on a green, resilient, low-carbon, sustainable development is accelerated	Focus Area 1: Support inclusive and sustainable economic growth premised on Thailand's bio-circular-green model	Indicator 1: Annual growth rate of real GDP per employed person (SDG 8.2.1)	Avg. 2010-2019=3.3%/year	2027=2.5%/year	NESDC, World Bank	Annually
		Indicator 2: CO2e emission per unit of value added (SDG 9.A.1)	2019=0.2 CO2e kg per 2017 PPP \$ of GDP	2027=0.18 CO2e kg per 2017 PPP \$ of GDP	NSTDA, MOE	Annually
		Indicator 3: Number and percentage of public companies listed under SET's Thailand Sustainability Enhancement	2020=124 companies 2020=19.2% (24,646 companies)	2027=25%	SET	Annually Annually
		Indicator 4: Number of registered GAP farmers (Priority for SDG 2.4.1-Sustainable agriculture)	2020=201,000 farms (plant 170,000 farms, livestock 20,000 farms) 11,000	2027=250,000 farms	MDAC	Annually
		Indicator 5: Number of financial institutions adopting UN sustainable finance principles	2020=3	2027=6	UNEP Finance Initiative; Principle for Responsible Investment	Annually
	UN Focus Area 2: Enable and strengthen capacities for low carbon society, resilience, post COVID-19 and disaster recovery with capability to adapt and reduce the risks of disasters	Indicator 6: Renewable energy consumption as % of total final energy consumption (SDG 7.2.1)	2020=15.13%	2027=22.51% ^(b)	Min. of Energy	Annually
		Indicator 7: Environment Performance Index (covering air, soil, water, ocean quality, waste management, biodiversity, noise protection)	2020=45.4, Rank 78th out of 180 countries (10 year change of 4.1)	2027=55 2027=EPI Score of 55	The Yale Centre for Environmental Law & Policy and the Centre for International Earth Science Information Network at Columbia University's Earth Institute MCRIE	Annually
		Indicator 8: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies (SDG 11.b.1)	2020=52.2%	2027=80%	MOI	Annually
Outcome 2: Human capital needed for social and inclusive	UN Focus Area 3: Improving accessibility, responsiveness, and quality of public services as	Indicator 9: Proportion of total government spending on essential services (education, health) as a percentage of GDP (SDG 1.a.2)	2019=8.93%	2027=8%	MOF, BOT, NSO	Annually
		Indicator 10: Proportion of children and young people (i) in grades 2/3, (ii) at the end of primary, and (c) at	2019=51%	2027=60%	MOEP ^(c)	Every year/

Indicators aligned with the SDGs and specific, measurable, achievable, relevant and time-bound **(SMART)**

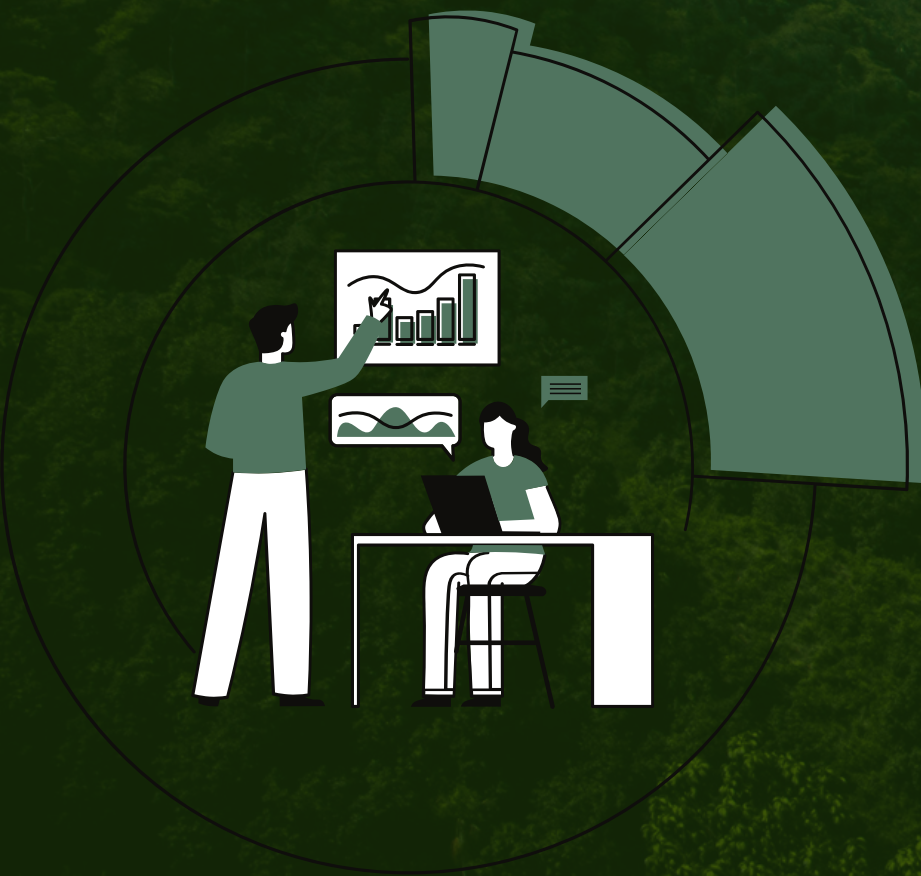
Baselines drawn from Government sources

Annex 1 Results Framework

OUTCOME 1 Thailand's transformation into an inclusive economy based on a green, resilient, low-carbon, sustainable development is accelerated.

FOCUS AREA 1 Support inclusive and sustainable economic growth premised on Thailand's bio-circular-green model.

Indicator	Baseline Value	Target ⁹⁴ Value	Data Source	Data Availability
Indicator 1: Annual growth rate of real GDP per employed person (SDG 8.2.1)	Avg. 2010-2019=3.3%/year	2027=2.5%/year ⁹⁵	NESDC/World Bank	Annually
Indicator 2: CO ₂ e emission per unit of value added (SDG 9.4.1)	2018=0.2 CO ₂ e kg per 2017 PPP \$ of GDP	2027=0.18 CO ₂ e Kg per 2017 PPP \$ of GDP	NSTDA/M. of Energy	Annually
Indicator 3: Domestic Material Consumption (DMC) per GDP (SDG 8.4.2/12.2.2)	2018 = 1.81 kg per GDP	2027 = 1.5 kg per GDP	NSTDA/ONEP	Annually
Indicator 4: Number and percentage of public companies listed under SET's Thailand Sustainability Investment	2020=124 companies 2020=19.2% (124/646 companies)	2027=25%	SET	Annually Annually
Indicator 5: Number of registered GAP farms (Proxy for SDG 2.4.1-Sustainable agriculture)	2020=201,000 farms (plant 170,000 farms, livestock 20,000 fisheries 11,000)	2027=250,000 farms	MOAC	Annually
Indicator 6: Number of financial institutions adopting UN responsible finance principles	2020=3	2027=6	UNEP Finance Initiative; Principle for Responsible Investment	Annually



Annex 1 Results Framework

OUTCOME 2 Human capital needed for social and inclusive development is improved through strengthening of institutions, partnerships, and the empowerment of people.

FOCUS AREA 4 Enable digital transformation, digital inclusion, and innovation for human capital optimization.

Indicator	Baseline Value	Target Value	Data Source	Data Availability
Indicator 17: Proportion of rural individuals and/or elderly using the Internet related to (SDG 4.4.1)	2020=73.2% (non-municipality area) 2020=49.7% (50+ Yrs. old)	2027=80% (non-municipality area) 2020=55% (50+ Yrs. old)	NSO	Annually
Indicator 18: Global innovation Index (covering institution, human capital & research, infrastructure, market sophistication, business sophistication, knowledge & technology output, and creative output)	2020=36.68 Rank=44 th	2027 in the top 40	Cornell University, INSEAD, & World Intellectual Property Org (https://www.globalinnovationindex.org/home)	Annually
Indicator 19: Number and percentage of smart farmers (% of total farmers)	2017=7.7% (981,649 smart farmers out of 12,710,000 farmers (farm labour based on NSO's labour Force Survey)	2027=15%	MOAC, NSO	Annually





UN Food Systems Summit 2021

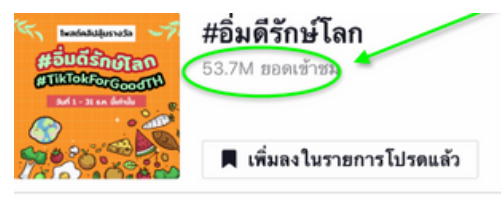
National Pathway toward Sustainable Food Systems



Government

National FAO & related foreign agriculture affair committee

International



ยอดการชม (View) ตั้งแต่วันที่ 1 - 31 ธ.ค.
จำนวน 53.7M. ยอดเข้าชม



Partnerships for Transformation

Civil Societies



Institutes



Food System in Asia:
Dialogue Series

Businesss



Network Thailand

International Seminar on Post-COVID-19 Sustainable Food System in Southeast Asia: Policy Evidences and Call for Action

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