Food and Agriculture Organization of the United Nations

How FAO supports developing countries on their nationally determined contributions

Nationally determined contributions

Nationally determined contributions (NDCs) are the main policy framework for countries to communicate their planned efforts to address climate change under the Paris Agreement (PA). The PA sets three collective goals to: (i) limit the rise in global temperature to well below 2 °C and pursue efforts to limit warming to below 1.5 °C above pre-industrial levels; (ii) enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change: and (iii) make financial flows consistent with low-emissions and climate-resilient development. NDCs are submitted every five years as part of the PA's in-built ambition-raising mechanism, and a review of collective progress – known as the Global Stocktake – occurs every five years. The next round of NDC updates (NDC 3.0) is scheduled for 2025.

FAO plays a central role in supporting climate action in agrifood systems (crops, livestock, forestry, fisheries and aquaculture and interconnected value chains, livelihood systems and supporting ecosystems and biodiversity) and guiding governments on enhancing the agrifood dimension of NDCs. With its mandate to eradicate hunger, achieve food security, and promote sustainable agriculture, FAO offers technical expertise, policy guidance and capacity-development assistance. Guided by its Strategy on Climate Change (2021–2031) and the Action Plan (2022–2025), and in alignment with National Adaptation Plans (NAPs) and the Sendai Framework for Disaster Risk Reduction (SFDRR), FAO supports developing countries in the formulation, implementation and tracking of NDCs to facilitate inclusive, climate-resilient and low-emissions agrifood system transformation.

10%

Around 10% of agricultural production areas will be climatically unsuitable by 2050 under high emissions.

80 million

With 2 °C warming, climate change is projected to put up to 80 million people at risk of hunger by mid-century.

31%

Agrifood systems were responsible for 31% of total anthropogenic greenhouse gas emissions in 2020.

94%

Almost all NDCs include climate action in agrifood systems.

FAO also contributes to raising the profile of agrifood climate solutions within the global climate change agenda under the United Nations Framework Convention on Climate Change (UNFCCC), significantly influencing finance, capacity building and technology flows towards developing countries. This includes informing discussions on the Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security (SJWA), leading the Food and Agriculture for Sustainable Transformation (FAST) Partnership, and collaborating with key partners like the NDC Partnership, United Nations Development Programme (UNDP), and the NAP Global Network.

FAO's NDC support in numbers

118 countries

118 countries received support from FAO on the implementation, revision and monitoring processes of their NDCs in 2023.

USD 1.2 billion

The FAO–Green Climate Fund (GCF) partnership unlocked over USD 1.2 billion for climate projects as of 2023, with 20 approved proposals, 85 readiness projects, and 8 collaborative initiatives.

44 projects

As of 2024, at least 44 FAO projects have a strong NDC component, most addressing both mitigation and adaptation efforts.

FAO's NDC country support streams

FAO provides targeted support to developing countries on NDC processes across five interrelated workstreams designed to strengthen the capacity of government and non-state actors to implement climate action in agrifood systems at the speed and scale required to achieve the Paris Agreement's temperature, adaptation and climate finance goals.

1. Designing climate risk-informed adaptation visions and strategies

Incremental adaptation is failing to keep pace with increasing climate risks in agrifood systems. FAO supports developing countries in accelerating adaptation planning and action for more resilient agrifood systems and livelihoods. This entails enhancing the institutional and technical capacities of governments and non-state actors to carry out climate risk and vulnerability assessments, set long-term adaptation visions and goals, and appraise and prioritize evidence-based adaptation options. FAO support includes strengthening climate information systems and services for climate-risk informed decision-making based on the latest climatic, geographic and socioeconomic data, as well as ensuring cross-sectoral coordination and policy coherence to promote adaptation and disaster risk reduction at various scales. FAO supports the integration and alignment of NDCs with other relevant policy agendas, such as NAPs, National Biodiversity Strategies and Action Plans (NBSAPs) and Disaster Risk Reduction (DRR) strategies.

TOOLBOX

- Climate Risk Toolbox
- Climate and Agriculture Risk Visualization and Assessment (CAVA)
- Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP)
- Climate Action Review (CAR) tool
- Climate change adaptation in the livestock sector
- Adaptation Toolbox for Fisheries and Aquaculture
- Guidance on climate adaptive fisheries management
- Forest & Landscape Water Ecosystem Services (FL-WES) Tool
- Forest-based adaptation: transformational adaptation through forests and trees

2. Setting greenhouse gas emission targets and 1.5 °C consistent mitigation pathways

Achieving the global temperature goals of the Paris Agreement is not possible without rapid and deep greenhouse gas (GHG) emission reductions across agrifood systems. FAO supports developing countries in building their institutional and technical capacities to set sectoral GHG emission reduction targets in the near to medium term, define longer-term net zero strategies, and design mitigation policies and actions in their NDCs. This includes estimating the GHG emission reduction and carbon sequestration potential of mitigation options in the agriculture, forestry and other land use (AFOLU) sector in line with Intergovernmental Panel on Climate Change (IPCC) methodologies. Additionally, FAO helps in mainstreaming agrifood NDC priorities into national and sectoral policies, plans, and budgets to optimize resources and outcomes, including Long-Term Low Emission Development Strategies (LT-LEDS).

TOOLBOX

- Nationally Determined Contributions Expert Tool (NEXT)
- Adaptation, Biodiversity and Carbon Mapping Tool (ABC-Map)
- Global Livestock Environmental Assessment Model (GLEAM)
- The Energizing Agriculture Assessment Tool (EAAT)
- Quantifying and mitigating GHG emissions from aquaculture
- Climate-smart livestock production: e-learning course
- Open Foris: Free open-source solutions for forest and land monitoring, including Earth Map, Collect Earth, and System for Earth Observation Data Access, Processing and Analysis for Land Monitoring (SEPAL)

3. Ensuring just and gender equitable transitions

Climate change impacts on people are highly unequal due to differential vulnerabilities and adaptive capacities, especially for women, youth, poor households, small-scale producers, Indigenous Peoples and minority groups. FAO recognizes that climate action is effective and sustainable only if inclusive, system-oriented solutions that address inequalities and that differentiate responses based on climate risk and cut across agrifood systems are adopted. To ensure NDCs are rooted in whole-of-society planning processes and incentivize just transitions, FAO builds local capacities and facilitates multi-stakeholder engagement for the formulation of inclusive and equitable climate solutions. This includes embedding risk transfer mechanisms, gender transformative approaches and social protection into NDCs to enable people-centered climate action and avoid maladaptive outcomes. FAO also supports governments on loss and damage assessments in agrifood systems.

TOOLBOX

- Training guide: Gender in adaptation planning for the agriculture sectors
- Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness
- Managing climate risks through social protection e-learning
- FAO's damage and loss assessment methodology
- Guidance on human rights-based approach to addressing climate change in small-scale fisheries (SSF)

4. Establishing transparent tracking and reporting systems

The architecture of the Paris Agreement includes an Enhanced Transparency Framework (ETF) to track NDC implementation and collective progress towards mitigation goals and the Global Goal on Adaptation. FAO provides tailored assistance to developing countries on establishing national systems and processes for tracking agrifood systems in NDCs and reporting on progress to the UNFCCC through Biennial Transparency Reports (BTRs). This includes building the capacity of designated ministries, departments and agencies to establish robust and sustainable monitoring and evaluation (M&E) systems to track adaptation, as well as measurement, reporting and verification (MRV) systems to track mitigation in the AFOLU sector.

TOOLBOX

- Biennial Transparency Report Guidance and Roadmap Tool
- The Nationally Determined Contributions Tracking (NEXT) Tool
- The greenhouse gas data management (GHG-DM) tool
- Strengthening M&E for adaptation planning in the agriculture sector
- Using metrics to assess progress towards the Paris Agreement's Global Goal on Adaptation
- Archiving guidance for a national greenhouse gas inventory
- Greenhouse gas e-learning curriculum

5. Unlocking climate finance and private sector investments

Agrifood systems received just 4.3 percent of total project-level climate finance tracked in 2019/2020, with only about **1.7 percent** reaching small-scale agriculture. The amount of climate finance flowing towards agrifood systems is not only strikingly low but, according to FAO analysis, also diminishing over time. FAO recognizes that closing the widening agrifood system climate finance gap will require enabling policies and de-risking public and private investments. FAO supports countries to access climate finance to implement their NDCs through a number of mechanisms, including the FAST Partnership; the FAO partnership with the Green Climate Fund (GCF), which has unlocked over USD 1.2 billion in financing for climate projects as of 2023; the FAO-Global Environment Facility (GEF) portfolio; bilateral and multilateral partnerships, including the Partnership Action Fund (PAF) of the NDC Partnership; and the FAO private sector engagement strategy.

TOOLBOX

- Food and Agriculture for Sustainable Transformation (FAST) partnership
- Climate-related development finance to agrifood systems
- Fisheries and aquaculture adaptation finance gap analysis
- Private sector mapping, outreach, and engagement in climate-responsive agrifood systems

FAO in action

Costa Rica (SCALA programme)

The Scaling up Climate Ambition in Land Use and Agriculture through NDCs and NAPs (SCALA) programme, jointly led by FAO and the United Nations Development Programme, supports 12 countries in translating their NDCs and NAPs into transformative climate actions. In Costa Rica, SCALA brings multiple stakeholders together to accelerate the implementation of resilient, low-carbon climate solutions for sustainable land management in the livestock and coffee sectors through initiatives such as the pilot certification of deforestation-free beef on 15 farms and the first application of the Recarbonization of Soil (RECSOIL) protocols on 45 farms. A national gender study was conducted to identify market-based opportunities to support gender-responsive livelihood development in the sector.


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Côte d'Ivoire (FAO-GCF)

The FAO-GCF Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire (PROMIRE) project teaches cocoa farmers agroforestry practices in place of the traditional, full-sun cocoa cultivation that often involves tree felling. PROMIRE aims to build climate resilience and reduce greenhouse gas emissions in Côte d'Ivoire's cocoa value chain, while enhancing traceability and supporting fair trade. The project has directly benefited 1 743 people, while some 317 hectares of forest have been restored or maintained along with nearly 1 400 hectares of conventional cocoa plots converted to agroforestry or agro-ecosystems.

Bangladesh (FAO-GEF)

Through the GEF's Capacity-building Initiative for Transparency (CBIT), FAO supports 27 countries to access financing to improve their capacities to meet reporting requirements of the PA. In Bangladesh, FAO has assisted the national government in developing an integrated climate change measurement, reporting and verification platform. The platform supports the preparation of Bangladesh's GHG inventory, national communication and BTR through a structured archiving system and a database for GHG emission, adaptation, mitigation and finance information.


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Zambia (FACE-NDC)

The FAO-led Facility for Action for Climate Empowerment to achieve Nationally Determined Contributions (FACE-NDC) project aims to support several countries in reducing greenhouse gas emissions, enhancing biodiversity, and fostering social justice. In Zambia, FACE-NDC is leveraging funding from the International Climate Initiative (IKI) and expertise from academia and development agencies to empower the country to tailor climate change education materials, support capacity building and strengthen non-formal education to help achieve the country's NDC. A geographic information system (GIS) based monitoring component is being developed in Zambia to generate a strong evidence base for a behavioural science approach that can be replicated in other countries.

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https://www.fao.org/climate-change/projects-and-programmes/en