TURQUOISE NEXUS INITIATIVE

BACKGROUND

1. Food, water, climate

According to the 2025 State of Food Security and Nutrition in the World report, jointly published by FAO, the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), and the World Health Organization (WHO), approximately 673 million people experienced hunger in 2024, a figure that remains above pre-pandemic levels and falls short of SDG 2 targets. The report notably highlights that global food insecurity stands 683 million above the level recorded in 2015, when the Sustainable Development Agenda was adopted.

The situation in the water dimension is equally alarming. The UN 2024 World Water Development Report, published by the United Nations Educational, Scientific and Cultural Organization (UNESCO), confirms that approximately half of the world's population experiences severe water scarcity for at least part of the year, with agriculture accounting for 70 percent of global freshwater withdrawals. The UN Statistics Division's SDG 2024 Report further documents that water stress increased by three percent globally between 2015 and 2021, with North Africa and Western Asia already above critical levels and recording an additional 12 percent increase.

Climate change is exacerbating these pressures. The contribution of Working Group II to the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report-Climate Change 2022: Impacts, Adaptation and Vulnerability, establishes with high confidence that human-induced warming has slowed agricultural productivity growth in middle and low latitudes over the past 50 years, and projects that under a 2°C global warming scenario, ten percent of current crop and livestock areas worldwide will become climatically unsuitable. The prospect of declining crop yields in the world's most vulnerable semi-arid regions, if left unaddressed through structural interventions, carries devastating implications for agricultural systems in which Türkiye holds direct technical expertise.

The resulting consequence is a widening policy gap manifesting as national food security strategies that fail to account for water constraints, NDCs that do not reflect food system vulnerabilities, and water management frameworks that are disconnected from agricultural production systems. This fragmentation is most acutely felt in semi-arid and water-stressed regions across the Middle East and North Africa (MENA), Sub-Saharan Africa, and Central Asia, the very areas where Türkiye's regional experience and technical expertise are most directly applicable.

TNI will address this fragmentation by providing a space for practitioners to link policy coherence, technical exchange and investment readiness. Early expressions of interest received following the Initiative's presentation indicate strong demand from countries, technical institutions, civil society organizations, research actors, and finance-facing partners to engage in policy coherence, knowledge exchange, implementation support and investment alignment.

2. The NDC/NAP implementation gap

Despite WWDR 2024 confirming that 70 percent of global freshwater withdrawals go to agriculture, the food-water-climate nexus remains structurally underrepresented in national climate commitments. The 2025 NDC Synthesis Report, published by the United Nations Framework Convention on Climate Change (UNFCCC) secretariat in October 2025, reveals that while countries are developing legal and policy instruments covering agriculture, water, and food security, adaptation components, even though present in 73 percent of new NDCs, are rarely supported by cross-sectoral, coordinated commitments. This represents a significant missed opportunity, as agricultural water management is simultaneously a key driver of climate vulnerability and a critical lever for adaptation and food systems resilience.

There is a structural need for technical assistance, peer learning, and policy coalitions to enable developing countries to embed integrated food-water-climate approaches into their national contributions and implementation of commitments.

This need is consistent with the interest expressed by potential TNI stakeholders in supporting NDC and NAP integration, policy development, implementation support, data and monitoring, and the alignment of national priorities with finance opportunities.

3. Türkiye's model

Türkiye has developed one of the most comprehensive national frameworks for water-centred agricultural transformation in the developing world. The core elements of this model include:

- Large-scale irrigation modernization
- A national drought management and early warning system
- Drought-resistant and water-efficient crop development programmes
- Integration of water management into national food policy

These approaches have been validated through national implementation and carry value for water-stressed countries in the Middle East and North Africa (MENA), Sub-Saharan Africa, and Central Asia regions. TNI is the proposed institutional vehicle to structure this knowledge transfer, embed it within multilateral frameworks, and scale it through country-owned action plans.

4. FAO Food and Agriculture for Sustainable Transformation (FAST) Partnership

The FAO FAST Partnership provides a suitable home for TNI. The FAST Partnership was established to accelerate food systems transformation by mobilizing coalitions of willing actors around specific enabling conditions, policy coherence, investment alignment, and multi-stakeholder engagement.

The FAST Partnership aims to enhance the quantity and quality of climate finance to support the transformation of agriculture and food systems, strengthening adaptation, maintaining the 1.5°C pathway, and ensuring food and economic security for the most vulnerable. It is structured around three pillars: improving access to finance, strengthening knowledge and capacity, and advancing policy support and dialogue. These pillars are closely aligned with those of TNI.

OBJECTIVE

The Turquoise Nexus Initiative (TNI) is a proposed country-led, multi-stakeholder initiative that will operate as a flagship programme under FAO's Food and Agriculture for Sustainable Transformation (FAST) Partnership. Drawing on Türkiye's experience as a reference framework for water-centred agricultural production models, TNI will build a global convergence mechanism that integrates food

systems transformation, sustainable water management, and climate adaptation, and translate this integration into national policy commitments and aligned investment flows for implementation.

TNI aims to address a critical institutional gap arising from the misalignment between global food systems governance, national water resource management, and climate commitments embedded in climate strategy documents such as nationally determined contributions (NDCs) and national adaptation plans (NAPs). By positioning water management as a foundational pillar of food security and building a country-owned network for knowledge exchange and policy alignment, TNI seeks to catalyse a transformative shift in how countries experiencing food insecurity and water stress design and implement their agricultural development strategies.

INITIATIVE OUTLINE

1. Implementation pillars

Three pillars will be implemented through the establishment of TNI as a new flagship programme under the FAST Partnership with support from FAST Partnership Members and institutional partners.

Pillar 1	**Policy Coherence and Implementation Support** Support countries in the assessment and implementation of their NDCs and NAPs to explicitly address the food-water-climate nexus.
Pillar 2	**Knowledge Generation and Technical Exchange** Starting in 2027, produce case studies in countries affected by water scarcity, and establish a global knowledge exchange network linking national research, extension, and policy institutions.
Pillar 3	**Investment Readiness and Finance Alignment** By 2030, develop a pipeline of bankable projects connecting water-centred agriculture and food systems transformation priorities with climate finance opportunities.

2. Delivery

Policy coherence and implementation support
By supporting participating countries in assessing and strengthening the integration of the food-water-climate nexus within the implementation of nationally determined contributions and national adaptation plans, TNI will help promote greater policy coherence across agriculture, water, and climate institutions. This will enable countries to define more integrated and actionable national pathways for water-centred agriculture and food resilience.

Knowledge generation and technical exchange
By generating practical knowledge products, including country case studies, peer-to-peer learning opportunities, and a global knowledge exchange network, TNI will strengthen countries' technical and technological capacity to design and implement context-specific solutions to water scarcity and climate risks in agriculture and food systems. Peer learning and institutional collaboration will accelerate the dissemination and uptake of tested approaches.

Investment readiness and finance alignment
By translating policy priorities and technical solutions into investment-ready programmes, TNI will support participating countries in identifying and structuring bankable opportunities for water-centred agriculture and food systems transformation. Through engagement with climate finance actors and development finance partners, the Initiative will help align country priorities with financing opportunities, enabling implementation at scale.

GOVERNANCE STRUCTURE AND PARTNERS

TNI will be led by the Ministry of Agriculture and Forestry of the Republic of Türkiye under the coordination of the COP31 Presidency. FAO, through the FAST Partnership Task Force, will support the operational coordination of the Initiative and ensure that participation in the Turquoise Nexus Initiative is appropriately reflected within the FAST Partnership engagement and application processes.

Informed by ongoing consultation and exchange with stakeholders engaged in *Axis 3: Transforming Agriculture & Food Systems* of the Global Climate Action Agenda, the TNI will support efforts to advance the Global Climate Action Agenda's objectives.

PARTICIPATION

TNI will bring together governments, international organizations, research institutions, civil society, and the private sector around a common agenda for climate-resilient, water-centred agriculture and food systems. As a flagship programme under the FAST Partnership, the Turquoise Nexus Initiative will operate within the existing institutional framework of the FAST Partnership.

All FAST Partnership Members, Observers, and Technical Partners, including both countries and organizations, are encouraged to engage in the Initiative according to their areas of interest and expertise, sharing knowledge, expertise, technical support and advocacy support. Countries and organizations interested in participating in the Turquoise Nexus Initiative that are not yet part of the FAST Partnership will be invited to engage through the existing FAST Partnership participation modalities, including as Members, Observers, or Technical Partners, as appropriate.

All interested Parties and organisations are encouraged to complete the online expression of interest form on the FAO at COP31 website: https://forms.gle/27kGfnQ4LMVktiMg8.

For further information, please contact the addresses listed below.

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