



NATIONAL ECOLOGICAL TRANSITION STRATEGY





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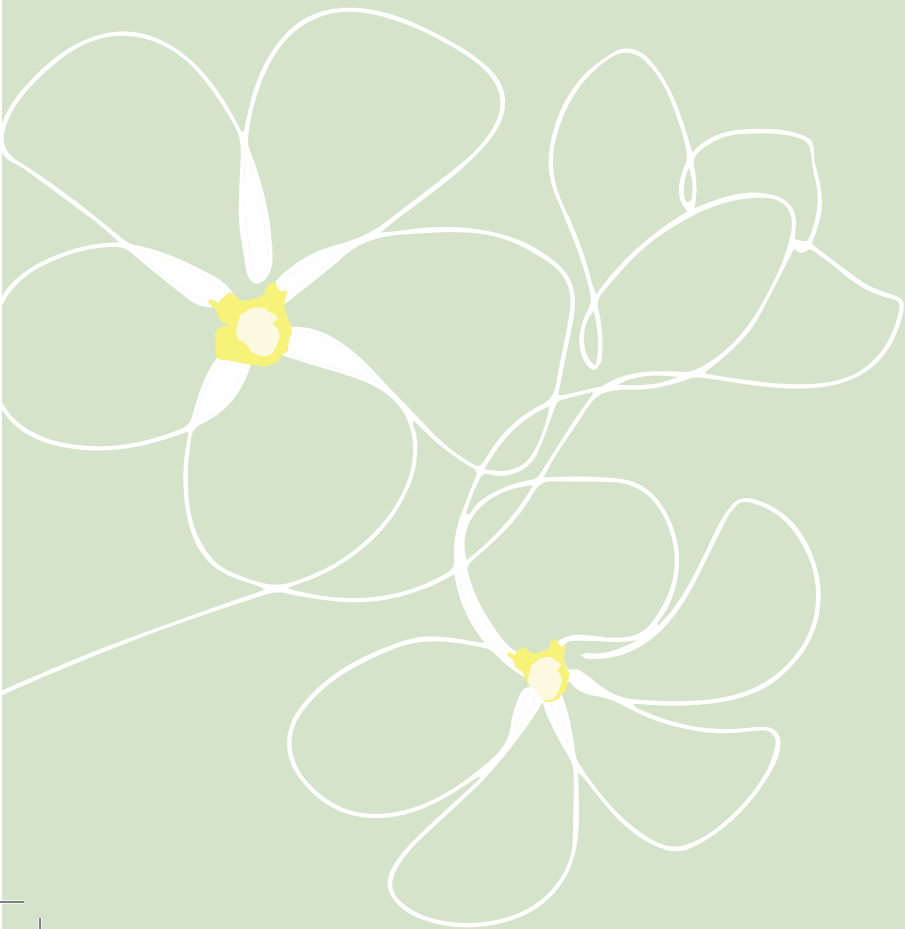
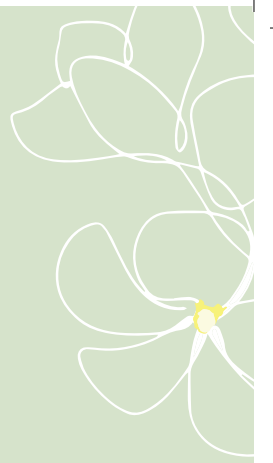


الاستراتيجية الوطنية للانتقال البيولوجي



NATIONAL ECOLOGICAL TRANSITION STRATEGY

Stratégie Nationale de Transition Ecologique



WORD OF THE CHIEF OF GOVERNMENT



The protection of the environment and the right to a clean environment are a national priority, in accordance with the provisions of the preamble to the Constitution of July 25th, 2022, according to which: “We will work with constancy and sincerity so that economic and social development will continue without pitfalls and without recession in a clean environment which increases the splendor of our beautiful Tunisia called green and so that sustainable development takes place in a healthy environment free from pollution.

In this regard, the realization of the rights guaranteed by the Constitution is part of a strong political will involving all stakeholders, ensuring synergy between all strategies, and reinforcing the mobilization of actors and necessary means to achieve sustainable development goals. This is guided by the principle that we do not inherit the land from our ancestors but borrow it from our children.

In this context, Ms. Nejla BOUDEN-ROMDHANE, President of the Government, invited the Ministry of the Environment at the beginning of 2022 to develop a National Strategy for Ecological Transition (NSET). This strategy is based on a participatory approach involving all stakeholders and sectors to address anthropogenic and natural pressures threatening living conditions and the well-being of populations and ecosystems, which have become increasingly vulnerable. Developed with the support of the United Nations Development Program (UNDP) and validated by the Council of Ministers in early 2023 as a political orientation of the Government, the strategy aims to embed the concepts of environmental protection, sustainable development, adaptation, and resilience to the effects of climate change in all sectors of economic and social development.

The process continued on June 26, 2023, with the first National Conference on Ecological Transition. This event was organized at the International Center for Environmental Technologies in Tunis (CITET) under the high patronage of the Presidency of the Government and with the participation and mobilization of six members of the Government

Considering the Government’s priorities, we emphasize the unifying and cross-cutting nature of the SNTE, including its vision, five areas of intervention, and 53 measures. We affirm the importance of the identified objectives and priorities to drive action in favor of the sustainable development of our country and ensure its influence.

The Ministry of the Environment is urged to disseminate this Strategy, whose vision involves a transformation of both individual and collective behavior. This transformation is achieved through an evolution of production and consumption modes towards greater sustainability and circularity.

All actors and sectors are called upon to promote the policies, strategies, and actions for implementing this strategy (NSET), which holds promise in terms of aspirations and is mobilizing for action at all levels and in all regions of the country.

The Presidency of the Government supports the implementation of planned institutional, legal, and structural reforms. It intends to mobilize all necessary means to ensure the success of our country’s ecological transition.

Together we can succeed

Ahmed Hachani
President of Government



WORD OF THE MINISTRY OF THE ENVIRONMENT



Ecological issues, both on a global and national scale, are currently more concerning than ever, with socio-economic and health repercussions escalating. This is underscored by recent scientific studies, notably the Synthesis Report for the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, 2023), the Global Assessment Report on Biodiversity and Ecosystem Services (IPBES, 2022), and regular publications from the United Nations Environmental Program (UNEP) and the World Health Organization (WHO).

These sources emphasize the inseparable link between health and the environment.

Climate change, land degradation, ecosystem destruction, biodiversity loss, overexploitation of natural resources, and the rise in health and environmental risks, coupled with natural disasters, present significant challenges for all countries worldwide. Tunisia, according to these reports, is identified as one of the most vulnerable countries to the impacts of climate change and is grappling with these challenges head-on.

The 2030 Global Agenda for Sustainable Development, to which Tunisia committed fully in 2015, necessitates a deeper integration of the four dimensions of sustainable development (economic, socio-cultural, and institutional governance) into public policies, both at the macroeconomic and sectoral levels.

In response to this imperative, and following the recommendation of the Presidency of the Government, the Ministry of the Environment has initiated the development of the National Strategy for an Ecological Transition (NSET). This strategy aims to integrate and consolidate existing public policies, fostering improved synergy among various actors and sectors.

The primary objective of the NSET is to align Tunisia with global changes and leverage opportunities provided by multilateral and bilateral financing, as well as technical support mechanisms. It addresses the challenges posed by the effects of climate change, as well as the preservation and restoration of natural resources and ecosystems, which are crucial for the current economic models and social cohesion.

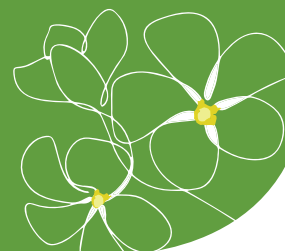
To achieve this objective, the NSET incorporates, in particular, the goals outlined in the National Sustainable Development Strategy (SNDD 2014-2020), the National Development Plan 2023-2025, and Vision Tunisia 2035. Vision Tunisia 2035, with its four pillars, places special emphasis on preserving resources and adapting to climate change to secure the rights of future generations. This reflects national aspirations for sustainable development through an alternative model. This model is built on a fresh approach to the socio-economic system, blending efficiency with transparent public policies and the judicious use of natural capital and national resources. This aligns with the promotion of the green, blue, and circular economy.

The primary aim of the National Strategy for an Ecological Transition is to fortify various sectoral strategies and encourage their convergence towards shared ideal and common objectives for all actors and socio-economic sectors, to ensure :

The material and intangible well-being of current and future generations, within the framework of a fair and inclusive economic and social development model, low in natural resources and energy, ecologically neutral, adapted to climate change and resilient to crises and disasters

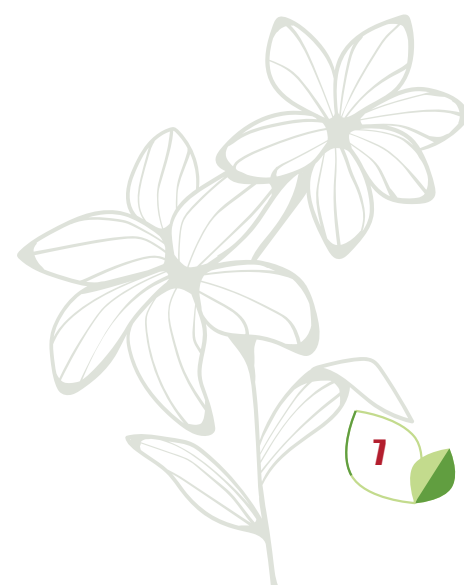
Leïla CHIKHAOUI-MAHDAOUI
Minister of the Environment

LIST OF MAIN ABBREVIATIONS



ANGED	National Agency for Waste Management
ANPE	National Agency for Environmental Protection
ANTE	National Baselines for the Ecological Transition
APAL	Coastal Protection and Development Agency
ARP	Assembly of People's Representatives
ARPA	Regional Agency for Environmental Protection (Sicily)
GAP	Good agricultural practices
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
WB	World Bank
OMW	Oued Medjerda watershed
CC	Climate Change(s)
UNFCCC	United Nations Framework Convention on Climate Change
ESEC	Economic, Social and Environmental Council
CITET	Tunis International Center for Environmental Technologies
SC	Steering Committee
NDC	Nationally Determined Contribution
CRDA	Regional Commissioner(s) for Agricultural Development
DCW	Demolition and construction waste
GEF	Global Environment Facility
FFEM	French Fund for the Global Environment
EDF	European Development Fund
FDCT	Tourism Competitiveness Development Fund
FOCTEE	Common fund for ecological and energy transition
FODECAP	Competitiveness development fund in the agriculture and fishing sector
FODEP	Depollution fund
FPEE	Fund for the Protection of Environmental Aesthetics
FPZT	Tourist Area Protection Fund
FTE	Energy Transition Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
HAET	High authority for ecological transition
ENI	European Neighborhood Instrument
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau (German Cooperation Bank)
LISP	Coastline without plastic
ONAS	National Sanitation Office

NGO	Non-governmental organization(s)
ONPC	National Office of Civil Protection
OTEDD	Tunisian Observatory of the Environment and Sustainable Development
PAN-LCD	National action plan to combat desertification
PAN-CPD	National action plan for sustainable consumption and production
PG	Presidency of the Government
PNMUD	National Sustainable Urban Mobility Plan (PNMUD)
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
PPLT	Tunisian Coastal Protection Program
PTF	Technical and financial partners
CS	Civil society
SNDNC-RCC	National Carbon Neutral Development Strategy – Resilient to Climate Change
SNGC-GSD	National strategy for global and sectoral circular waste management
SNGID-DMA	National strategy for integrated and sustainable management of household and similar waste
NSET	National Strategy for an Ecological Transition
NSDRR	National Strategy for Disaster Risk Reduction
UGPO	Unit(s) of management by objectives
UTICA	Tunisian Union of Industry, Commerce and Crafts



METHODOLOGY

The elaboration of the National Strategy for an Ecological Transition (NSET), has been carried out in cooperation with the United Nations Development Program (UNDP), according to a participatory multidisciplinary process combining documentary analysis and the review of existing strategies, projects, programs and studies. The process was completed by consultations with ministries, public organizations and other stakeholders along numerous participatory workshops including representatives of the public and private sector, experts and components of civil society.

Throughout this process, the elements of the NSET were enriched, reviewed and corrected, so that they reflect a consensus around the vision, objectives, axes of intervention and measures to be considered for a simple, immediate and lasting implementation.

The main stages of designing, adopting and monitoring the NSET can be summarized as follows:

- **July 1st, 2022:** start of the UNDP support mission.
- **September 9th, 2022:** scoping meeting organized by the Ministry of the Environment in the presence of the various stakeholders.
- **September 27th, 2022:** consultation workshop with different stakeholders for the presentation of the National Sustainable Development Strategy (SNDD 2014-2020) and the validation of the future vision.
- **September to December 2022:** development of the National Strategy for an Ecological Transition for 2035/50, as part of iterative work between the Ministry of the Environment, experts and the various concerned departments.
- **December 6th, 2022:** Workshop of multidisciplinary experts for discussion and enrichment of the elements of the Strategy by the contribution of national experts specialized and/or involved in the implementation of the various transversal and sectoral strategies in all other areas (health, transport, tourism, agriculture, etc.), with the aim of making the NSET coherent with these other strategies. It was an opportunity to enumerate the difficulties of their implementation and to propose the appropriate measures to be integrated within the framework of the NSET.
- **December 22nd, 2022:** Consultation workshop on the implementation of the Ecological Transition Strategy in the field of waste: presentation of the circular economy as a sustainable alternative.
- **December 27th, 2022:** development of a policy Note for decision-makers.
- **February 3rd, 2023:** validation of the vision, objectives and 53 measures of the National Strategy for an Ecological Transition by the Government during the Ministerial Council chaired by the President of Government. The Ministerial Council highlighted both, the national importance and transversal nature of the Strategy. In particular, it recommended perfecting ministerial coordination for immediate and concerted implementation. The Presidency of the Government also recommended the organization of a conference bringing together the various stakeholders, entitled “the National Baselines to enhance Ecological Transition (NBET)”.
- **June 26, 2023:** holding of the first National Conference on Ecological Transition (NBET).



Thus, the process of elaboration of the National Strategy for an Ecological Transition made it possible to conduct a critical analysis and in-depth reflection to establish a long-term vision (2023/35-2050) of the ecological transition in Tunisia, aiming to transform the current economic and social model, based on linear development, into a circular economy model tending towards green growth resilient to climate change and risks and crises, preserving the country's natural capital and its ecosystems, reducing inequalities social and territorial disparities and contributing to reduce poverty through the creation of short value chains and jobs, while strengthening the capacities of present and future generations to adapt to a changing world.





INTRODUCTION

In the current state of the planet, the ecological transition, defined as the evolution towards a new economic and social model, stands as a comprehensive and sustainable solution to the significant environmental, economic, and social challenges of our century. It addresses the threats to our planet and our survival, aiming to establish a resilient, sustainable, socially just, and inclusive development model. This transformative model seeks to reshape consumption and production methods, redefine work and communal living, all while considering spatial, temporal, and intergenerational factors.

Recognizing the global imperative for change, Tunisia has embraced an ambitious National Strategy for an Ecological Transition (NSET). This strategy aligns with the challenges and opportunities inherent in such an approach, and its relevance is evident today.

Historically, Tunisia's development model relied heavily on the intensive exploitation of natural resources, including soil, water, forests, coastline, and mining resources. However, the strategic natural capital of the country is now under threat, exacerbated by the scarcity and vulnerability of natural resources and ecosystems, which are, severely, impacted by the effects of climate change.

Moreover, the country's environmental management reveals several shortcomings, particularly of an institutional nature. These challenges are tied to governance modes, economic and territorial planning, allocation of budgetary resources, and the choice of production models and technologies. This is especially evident in the utilization of natural resources for food production and the management of solid and liquid waste. The adoption of the NSET reflects Tunisia's commitment to addressing these issues and advancing towards a more sustainable and resilient future.

In addition to confronting endogenous challenges, Tunisia is confronted with global exogenous threats, including global warming and its consequences, loss of biodiversity and species extinction, marine pollution, especially in the Mediterranean, with a particular concern for plastic pollution and the increasing production of waste.

In response to these challenges, the National Strategy for an Ecological Transition for the period 2035-2050 is grounded in the promotion of human well-being, encompassing both material and immaterial aspects. It aspires to achieve social equity and intra- and inter-generational justice while considering the environment in all its components. This holistic approach views the environment as a collection of integrated and complex systems, with the anthroposystem being a part of it. The strategy aims, in its initial phase, to align with the 2030 sustainable development goals, enhance the entirety of the national natural, cultural, and civilizational heritage, and engage all socio-economic stakeholders: the public sector, private sector, civil society, and citizens. The goal is to facilitate the continuous and progressive pursuit of sustainability in all its dimensions.

The NSET aims to ensure the sustainability of natural capital while improving resource efficiency in development activities. It is structured around five axes, comprising 53 measures. These measures are designed to interact with each other and align with existing national strategies, plans, and action programs, as well as those under development in various sectors. Additionally, the NSET is meant to harmonize with international environmental instruments that Tunisia has signed and ratified, particularly those related to sustainable development and climate change.

All of these elements will be the focus of intervention programs set to be launched immediately. These programs are intended to align with the 2023-2025 Development Plan, the Tunisia 2035 Vision, the structural reform program initiated by the Government, and other sectoral strategies such as those in energy, industry, transport, tourism, health, education, etc...

» The NSET is structured around five axes, each addressing specific aspects of ecological transition:

Axis 1 Establish systemic, cross-sectoral, and territorial institutional governance, and make appropriate and accessible financing systems available.

Axis 2 Strengthen the adaptation and resilience capacities of sectors, environments, and populations to climate change and its effects. Reduce carbon intensity to achieve neutrality by 2050 while minimizing disaster risks.

Axis 3 Ensure rational management of natural resources, preserving and restoring ecosystems, both terrestrial and marine.

Axis 4 Establish the foundations for a green, blue, and circular economy based on sustainable consumption and production patterns. Eventually, eradicate pollution hotspots, decontaminate, and rehabilitate polluted sites.

Axis 5 Develop environmental culture, science, knowledge, and the qualification of human resources in the fields of environmental protection, sustainable development, and the fight against the effects of climate change. Disseminate these values among various stakeholders.

This summary document provides an overview of the five axes of the NSET, listing their corresponding measures. It also details the 30 measures of great priority proposed to participants in the five NBET working groups on June 26, 2023, aiming to define relevant actions to be undertaken and implemented immediately.

GOVERNANCE AND FINANCING



AXIS 1 ➤ GOVERNANCE AND FINANCING

The first axis of the NSET focuses on institutional governance and financing for the environment and sustainable development, which have been established in Tunisia for over thirty years and now require rejuvenation. This necessitates a bold reform and reorganization of government institutions responsible for the environment, natural resources, and sustainable development. At the local level, integrated and sustainable governance of natural resources, based on responsible user participation, needs to be established. An 'ecological' financing model, ensuring consistent mobilization of national and international financial resources, must accompany effective governance.

In practical terms, this axis encompasses the reform of the institutional framework for governance, the establishment of units responsible for monitoring the ecological transition in all sectors, the harmonization and strengthening of statistical information and decision-making systems for the environment and sustainable development, integrated and harmonious environmental and land-use planning, the development of the legal framework and tools for public participation in environmental decision-making, the creation of appropriate financing mechanisms and economic instruments to support the ecological transition, and the promotion of bilateral and multilateral cooperation, including collaboration with countries in the Global South.

A series of twelve (12) measures has been identified to concretely implement Axis 1, namely:

- 1 Ensure regular analysis and monitoring of cross-cutting NSET indicators: establishing the current status and regular monitoring of the various cross-cutting NSET indicators are fundamental to the success of implementation actions, and to any necessary adjustments in the execution of the identified measures.
- 2 Create and install a High Authority for Ecological Transition (HAET) chaired by the Presidency of Government, for a regulatory and arbitration role between sectors.
- 3 Adopt the draft of the Environmental Code and its implementing regulations.
- 4 Restructure and strengthen specialized environmental institutions, either those under the Ministry of the Environment (ANPE, APAL, ANGED, ONAS, etc.) and those in other departments (e.g. Institute of arid regions, etc.).
- 5 Attach the Tunisian Observatory of Environment and sustainable development (TOESD) to the Presidency of Government and strengthen its human and material resources, as a tool for information and assistance in political decision-making and environmental forecasting.
- 6 Develop a national system of environmental and ecosystem accounting (satellite accounts), as an integral part of the national statistics system (source of inspiration: UNEP).

- 7** Draw up a new National Spatial Planning Master Plan (SDATN) for 2050, in collaboration with all relevant departments and stakeholders. (see with MEHAT)
- 8** Set up an Economic, Social and Environmental Council (ESEC) as a consultative and debating body on development issues, representative of all stakeholders in society.
- 9** Create an Ecological Transition Fund (FOTE): FODEP, the Energy Transition Fund (FTE) and the Environmental Protection Tax (TPE) would be restructured accordingly.
- 10** Create a bank specialized in green finance and a sovereign green investment fund.
- 11** Adopt measures to ensure that banking regulation serves the ecological transition, notably by introducing a new macroprudential framework.
- 12** Create a position of special advisor to the Head of State in charge of ecological transition and climate.

Among these twelve (12) measures, seven (7) were proposed for consideration by working group no. 1 at the conference dealing with National Baselines for the Ecological Transition (NBET) held on June 26, 2023 (measures no. 1, 2, 3, 4, 5, 8 and 9) and are detailed below.



Measures 1 and 5:

Ensure regular analysis and monitoring of cross-cutting NSET indicators, and attach the Tunisian Observatory for the Environment and Sustainable Development (TOESD) to the Presidency of Government.

	Objectives	stakeholders	Phasing	Activities: completed, in progress and planned
Principal	<p>Ensure regular analysis and monitoring of transversal indicators for the implementation of the NSET, given that monitoring of the state of the environment and sustainable development is currently carried out by the Tunisian Observatory of the Environment and Sustainable Development (TOESD), an entity without status or legal personality that has been attached to the Agence Nationale de Protection de l'Environnement since 1992.</p>	<p>Ministry of the Environment Presidency of the Government</p>	<p>2023/2024</p>	<p>The TOESD is to be attached to the Presidency of Government as a complementary body to the High Authority for Ecological Transition (HAET), which is also to be attached to the Presidency of Government.</p>
1	<p>Attach the OTEDD to the Presidency of Government for better political support, by adopting the draft Environmental Code.</p>			
2	<p>Adjust TOESD's missions to ensure that all ecological transition indicators are monitored, as a tool for information and assistance in political decision-making and environmental forecasting.</p>			<p>A draft text defining the missions and prerogatives of TOESD and placing it under the supervision of the Presidency of Government has been submitted.</p>
3	<p>Strengthen TOESD's human and material resources</p>			

Measure n° 2 :

Create and install a High Authority for Ecological Transition (HAET) chaired by the Presidency of Government

	Objectives	Stakeholders	Phasing	Activities: completed, in progress and planned
Principal	<p>Create a High Authority for Ecological Transition (HAET) chaired by the Presidency of Government, comprising the most ministers, representatives of the main national organizations, the ARP and civil society, with a regulatory and arbitration role.</p>	<p>Ministry of the Environment Presidency of the Government All Ministries</p>		<p>Planned activity: It is necessary to have an arbitration and guidance body at the highest decision-making level.</p> <p>The HAET will have a secretariat provided by the Ministry in charge of the environment, and an interministerial technical committee responsible for preparing the folders to be submitted for its consideration.</p> <p>HAET's opinions are to be published in the Official Journal of the Tunisian Republic and on its website no later than ten (10) days after they are issued. The HAET prepares an annual report and publishes a summary on its website.</p>
1	<p>Adopt the text establishing the HAET, which is included in the draft of the Environment Code (see measure 3), and install the HAET once its members have been appointed.</p>	<p>Assembly of People's Representatives National organizations (including UGTT, UTICA, etc.) Civil society</p>	2023/2024	<p>Planned activity: The HAET's role is to approve public environmental policies, as expressed in the following documents provided for in the draft environmental code:</p> <ul style="list-style-type: none"> - The National Environmental Protection Plan - National climate policies, designed and drawn up under the coordination and supervision of the ministry in charge of environment, according to a participatory approach involving all stakeholders, including components of civil society. - The National Strategy for Carbon-Neutral and Climate-Resilient Development (SNDNC-RCC) - Nationally Determined Contributions (NDCs) - National adaptation plans - National policy on prevention, protection and rational management of soil and subsoil, groundwater, biodiversity protection, combating desertification and rational urban management
2	<p>Hold regular HAET meetings (on a half-yearly or quarterly basis.)</p>			
3	<p>Disseminate and monitor the main environmental policy guidelines validated by the HAET.</p>			<p>Activité projetée : It is planned to set up ecological transition steering units in each ministry, operational units in each public company, regional and local commissions via units in charge of ecological transition in each commune and governorate. The creation of a post of ecological transition advisor in each public institution is also proposed (ministry, company, communes, governorates, private sector).</p>

Measure n° 3 :

Adopt the Environmental Code and its implementing regulations

	Objectives	stakeholders	Phasing	Activities: completed, in progress and planned
Principal	<p>Improving Harmonization and consistency of environmental law, by ensuring the readability and easy applicability of the law applicable to the environmental sector within the framework of a codified system accessible to all stakeholders: public administrations, companies, associations, judges, citizens...</p>			<p>Current activity: The aim is to strengthen existing environmental protection law, while harmonizing it, completing it and making it more accessible, readable and accepted by its addressees, by consecrating the fundamental principles of environmental law: environmental rights and duties, sustainable development, rational ecological management, polluter-pays; while introducing the new principles universally recognized: non-regression, progression, climate justice, just and equitable transition, due diligence, information, education, participation in decision-making and access to justice.</p>
1	<p>Establish appropriate and evolving institutional governance of the sector as part of a global and concerted dynamic</p>	<p>All Ministries PG ARP</p>	<p>2023/2024</p>	<p>Current activity: The draft code proposes to raise the level of environmental decision-making by establishing a High Authority for Ecological Transition (HAET) under the aegis of the Presidency of the Government, made up of representatives of all ministries, the main national organizations and Parliament, reinforced by the Tunisian Observatory for Environment and Sustainable Development (TOESD). A unified legal basis has been given to the various institutions under the authority of the Ministry in charge of the environment, and the initial aim is to maintain existing structures, but with the possibility of evolution as the relevant texts are revised, in order to bring them into line with the new vision supported by the NSET and public environmental policies aimed at all stakeholders: public institutions, the private sector and civil society (see measure no. 4 below).</p>
2	<p>Create coordinated, transparent and secure control systems and mechanisms</p>			<p>In terms of environmental control, the draft Environmental Code proposes a transparent and operational approach, which consists in grouping the interventions of the various ministerial departments, which are currently scattered and even conflicting, within the framework of a digitalized and unified National Environmental Control Plan.</p>



3	<p>Emphasize upstream risk prevention, downstream nuisance reduction and mainly in-kind compensation.</p>		<p>The draft environmental code proposes an environmental and social impact assessment (ESIA) that takes up the requirements of the current environmental impact assessment (EIA), but provides for climate change to be taken into account and the possibility of carrying it out at the same time as work begins on major projects of national interest financed in part by international aid, or those whose execution exceeds the thresholds for amounts subject to sectoral procurement commissions.</p>
4	<p>Accelerate the transition to circularity in all sectors (agriculture, industry, tourism....) in synergy with the National Strategy for an Ecological Transition.</p>		<p>Environmental, economic and social aspects are inextricably linked, and the draft of the Environment Code proposes to reflect this interdependence in the strategies and plans to be drawn up in conjunction with other ministerial departments, in order to contribute to the dissemination of a transversal and horizontal environmental policy, in line with the Economic and Social Development Plan 2023-2025, the Tunisia 2035 vision and the various national strategies (SNTE, SDNC-RCC 2050, SGGGSD).</p>
5	<p>Support change drivers, both through green financing mechanisms and instruments, and by strengthening accountability (sanctions).</p>		<p>The draft proposes a new approach to environmental liability in the broadest sense, bringing together in a single title the principles of civil, administrative and criminal liability. It also proposes the use of alternative penalties for environmental offences, such as community service instead of imprisonment. Throwing garbage or abandoning objects outside the designated areas is also criminalized, and punishable by a fine and/or an obligation to perform one or more hours of community service.</p>

Measure n° 4:

Restructure and strengthen specialized environmental organizations

	Objectives	stakeholders	Phasing	Activities: completed, in progress and planned
Principal	<p>Restructuring and reinforcing specialized environmental bodies, particularly those currently under the Ministry in charge of the environment (ANPE, APAL, ANGED, ONAS, etc.), as well as the Ministry itself and its external services, to bring structures into line with the NSET</p>			<ol style="list-style-type: none"> Current activity: An analysis of the way in which institutions operate has been launched, so as to take account of the regional and local dimension and create a dynamic for integrated management of the sector by all the stakeholders involved: public bodies, private companies and civil society, since the ecological transition involves all sectors of development (economic, social, cultural and environmental). Planned activity: January 2024: launch of a study on the restructuring of the environmental sector in Tunisia, with a view to a detailed analysis of the missions and prerogatives of the Ministry and institutions involved in environmental protection, accompanied by a proposal for reorganization with a view to greater functionality and alignment with the 5 axes of the NSET. Planned activity: January 2025: drafting of texts relating to institutional reforms and implementation of new structures
1	<p>Achieve better coordination of activities between all stakeholders in the environmental protection sector and the implementation of the 5 axes of the NSET at national, regional and local level.</p>	<p>Ministry of the Environment</p>	<p>2023/2025</p>	<p>Current activity: The Ministry of the Environment intends to develop its presence throughout the country through a coherent restructuring of its central and regional services, by revising the relevant texts (Decree no. 2006-898 of March 27, 2006 on the organization of the Ministry of the Environment, amending and supplementing the Decree no. 94-1636 of August 1, 1994 on the Ministry's external services) to ensure that it is better anchored in the SNTE and public environmental policies.</p> <p>In particular, this involves revising the map of the Ministry of the Environment's regional representations to bring them closer to local authorities, strengthening the human and material resources of regional administrations and encouraging them to establish partnership agreements with local authorities and local stakeholders.</p>
2	<p>Reinforce ownership of the NSET by all stakeholders through consultation forums at different territorial levels, in favor of joint implementation of the 5 axes of ecological transition, with the support, coordination and guidance of relevant environmental structures.</p>			<p>Current activity: It is planned to strengthen all dialogue spaces, concertation and consultation with all stakeholders (public and private), or to create new ones, in order to make it easier to understand and implement the 5 priorities of the SNTE on the ground.</p>

Measure n° 8 :

Set up an Economic, Social and Environmental Council (ESEC)

	Objectives	stakeholders	Phasing	Activities: completed, in progress and planned
Principal	Set up an ESEC as a multi-stakeholder consultative and debating body on development issues, representative of all stakeholders in society.	All Ministries PG ARP National organizations Local authorities Private sector Civil society	2023/2025	<p>Planned activity: Proposal to integrate all stakeholders in the design and monitoring of transformative choices linked to the four pillars of sustainable development (social, ecological, economic and cultural).</p> <p>It is envisaged to strengthen the consultation process of all NSET stakeholders within the framework of a dynamic, participative and inclusive approach, hence the proposal to set up a multi-stakeholder dialogue space, namely a National Economic, Social and Environmental Council, in consultation with representatives of all ministries, local authorities, major national organizations, the private sector and civil society.</p>
1	Create a forum for multi-stakeholder dialogue on ecological transition issues			<p>Planned activity: January 2024: launch of the draft text for the creation of the ESEC, in consultation with ministries, local authorities, the private sector and civil society.</p>
2	Establish a synergy of players for greater effectiveness in the field			<p>Planned activity: January 2025: the ESEC is set up and begins operating as a complementary dialogue body to the HAET.</p>

Measure 9:

Create a joint ecological and energy transition fund (FOCTEE)

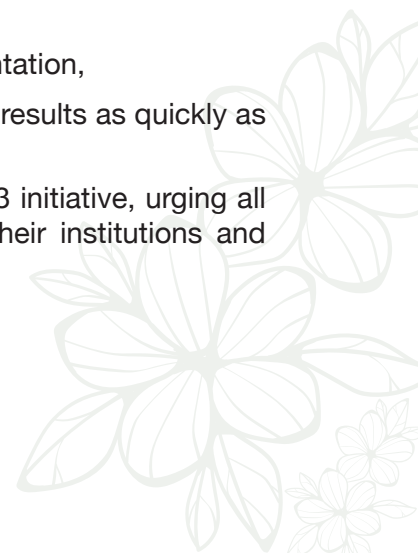
	Objectives	stakeholders	Phasing	Activities: completed, in progress and planned
Principal	<p>Create a joint ecological and energy transition fund (FOCTEE) by restructuring existing funds (FODEP, FPZT, FTE, FPEE, FODECAP, etc.).</p>			<p>Planned activity: Consolidation of several existing funds for NSET, and authorization entrusted to PG, based on HAET guidelines, while maintaining, where necessary for practical and administrative reasons, the competences of each authorizing officer in his own field.</p>
1	<p>Optimise ecological tax instruments: Environmental Protection Tax (EPT), carbon tax (to be created), etc.</p>	<p>Ministry of the Environment Ministry of Finance Other ministries with relevant treasury funds PG ARP PTF</p>	<p>2023/2025</p>	<p>Planned activity: It is planned to rethink the use of Tax for Environment to integrate the various areas of NSET. With the support of TFPs, it is proposed to take advantage of existing international mechanisms to strengthen and diversify sources of financing, while considering the possibility of designing new instruments, more adapted to climate emergencies and remediation costs in the event of extreme, recurring events of as yet uncertain predictability (storms, floods, fires) or sometimes lasting over time (drought), leading to serious losses and damage, the aim being to support and accompany the ecological transition process while leaving no one behind.</p>
2	<p>Extend the scope of the new fund to finance research and development into the ecological and energy transition and adaptation to the effects of climate change</p>			<p>Planned activity: It is proposed to align financial incentive tools to ensure greater relevance and effectiveness of intervention, and to contribute to the optimal financing of programs and actions to implement the five (5) axes of the SNSET throughout the country. The development and publication of a guide to access financing from the new Common Fund for Ecological and Energy Transition is also envisaged.</p>

On June 26, 2023, during the conference addressing National Baselines for the Ecological Transition (NBET), seven (7) measures (1, 2, 3, 4, 5, 8, and 9) were proposed for consideration by participants as priority actions to be immediately, undertaken for the implementation of Axis 1 of the NSET. These proposals sparked discussions within Working Group No. 1, chaired by Mrs. Leila CHIKHAOUI-MAHDAOUI, Minister of the Environment. The presentation was followed by a debate marked by strong support for the process. Participants emphasized the need to ensure the success of the implementation process and offered comments and suggestions to facilitate a genuine transition. The main recommendations were as follows:

- **The imperative of robust political backing for the NSET:** With a clear expression of political will at the government level, it is paramount to swiftly transition to implementation within public bodies. This ensures the actualization of the principle of the State's exemplariness,
- **Embedding the High Authority for Ecological Transition (HAET)** within the Presidency of the Government enhances its authority and legitimacy. This move should guarantee comprehensive support in terms of meeting frequency and activities,
- Leveraging comparative experiences in establishing the Ecological Transition Fund and restructuring environmental institutions is crucial.
- -Enhancing green financing: The establishment of a green bank could significantly aid the process. Additionally, incentivizing all banks to incorporate environmentally friendly practices in their products and financing is conceivable. This support would particularly benefit the private sector and households, promoting ecological transition initiatives and programs.
- -Ensure monitoring in accordance with international standards.
- -Provide support to local authorities, such as Kerkennah, to enhance the success of the transition at the local level. Recognize the vital role of local authorities in assisting citizens in changing their behavior and adapting consumption and production patterns. Select relevant monitoring/evaluation indicators for local assessment.
- -Streamline regulations and procedures for accessing funding and capacity-building mechanisms for municipalities with limited human and financial resources.
- -Develop a repository of best practices to be shared with all stakeholders for replication.
- -Encourage all ministries to establish dedicated units responsible for monitoring the ecological transition. Strengthen these units by allocating a dedicated budget for this purpose.
- -Recognize and reward institutions that distinguish themselves by their commitment to and implementation of the NSET through the presentation of prizes or rewards.
- -Expedite the procedures for establishing an Economic, Social, and Environmental Council (ESEC).
- -Encourage all Ministries and institutions under their authority to, fully, embrace this strategy,

specifically by:

- » Organizing awareness-raising meetings and monitoring implementation,
- » Allocating necessary budgets for achieving tangible, measurable results as quickly as possible,
- » Demonstrating increased commitment to the Clean-up Year 2023 initiative, urging all stakeholders to enhance the environmental conditions within their institutions and immediate surroundings.



CLIMATE CHANGE



AXIS 2 ➤ CLIMATE CHANGE

The second axis of the NSET focuses on addressing climate change by implementing the Nationally Determined Contributions (NDC) established in 2015, updated in 2021 up to the 2030 horizon. Additionally, it encompasses the National Strategy for Development Carbon-Neutral and Climate-Resilient (SDNC-RCC) by 2050 and the National Strategy for Disaster Risk Reduction (SNRRC 2018-2030). It is noteworthy that all three documents were developed using a collaborative and participatory approach, with the support and backing of international bodies, as well as technical and financial partners.

To achieve these goals, the country must capitalize on every opportunity to attain carbon neutrality by 2050, particularly through accessing international climate funds such as the Green Climate Fund, among others.

Recognizing that climate change poses a significant threat, especially to vulnerable populations and natural resources, it jeopardizes the sustainability of highly exposed economic activities like coastal tourism, fishing, agriculture, infrastructure, and human settlements, especially along the coast (blue economy). Despite Tunisia's relatively modest contribution (0.07% of global greenhouse gas emissions) to global warming, it is imperative to address the potential impacts on a local scale.

In this context, adaptation and resilience stand out as the fundamental principles guiding public policy to confront climate change. In alignment with the directives outlined in the two national "horizon" documents (CDN 2030 and SDNC-RCC 2050), the following actions have been recommended to address and mitigate the impacts of climate change:

- The conception, adoption, and implementation of measures to adapt the coastline in general, and island ecosystems in particular, to the impacts of climate change are crucial. This includes the ongoing fifth phase of the program for the Protection of the Tunisian Coastline (PPLT), which was initiated in 2013 and is scheduled to continue until 2028 (link to the PPLT). Notably, the Ministry of Equipment and Housing is currently conducting a study to develop a master plan for protecting the Tunisian coastline against marine erosion. This comprehensive effort involves an in-depth diagnosis of the current situation, an evaluation of past projects, and the establishment of a strategy and action plan for short, medium, and long-term protection against marine erosion by 2050.

Furthermore, APAL has conducted a risk assessment for potential loss of water resources due to an accelerated rise in sea levels by 2030, 2050, and 2100. Subsequently, an action plan has been devised to enhance the adaptation of aquifer management in response to these changing conditions.

- The establishment of a national climate early warning system is a crucial initiative, linked to international networks in this domain, as part of the execution of the National Strategy and Action Plan for the Sendai Framework for Disaster Risk Reduction (2015-2030).





Concretely, the second axis of the SNTE is structured around a series of seven (7) measures envisioned for its implementation:

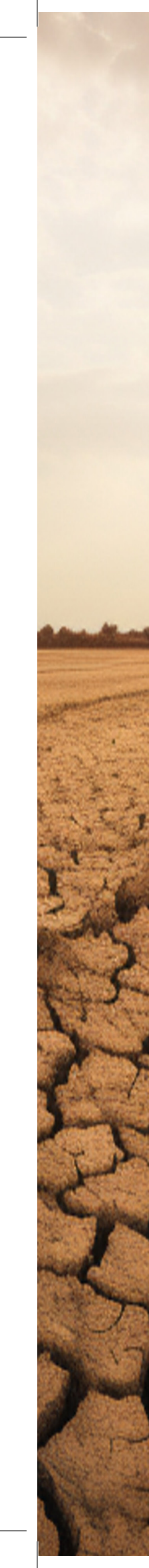
- 13** Implement the measures outlined in the NDC (2021-2030) and the SDNC-RCC, with the goal of achieving carbon neutrality by 2050.
- 14** Execute the measures delineated in the Energy Strategy up to 2035.
- 15** Implement sectoral strategies for adaptation and resilience to climate change in agriculture, health, and coastal areas.
- 16** Intensify reforestation efforts and enhance protection against forest fires. Commit to the Green Corridor Africa initiative, positioning Tunisia as the project's hub (leader).
- 17** Establish a national climate early warning system; connected to international networks specialized in this field.
- 18** Execute the measures outlined in the National Action Plan for the Sendai Framework for Disaster Risk Reduction (SNRRC 2015-2030).
- 19** Implement a model climate adaptation and resilience action: "Kerkennah": model island system for climate change adaptation and ecological transition." This project is envisioned as a successful flagship initiative for preserving island ecosystems, climate adaptation and resilience, and the conservation and enhancement of cultural heritage

Among these seven (7) measures, four (4) were proposed for consideration by working group no. 2 (measures no. 13, 15 [15-1 to 15-9], 17, 18 and 19) at the conference dealing with National Baselines for the Ecological Transition (NBET) held on June 26th, 2023, as detailed below.

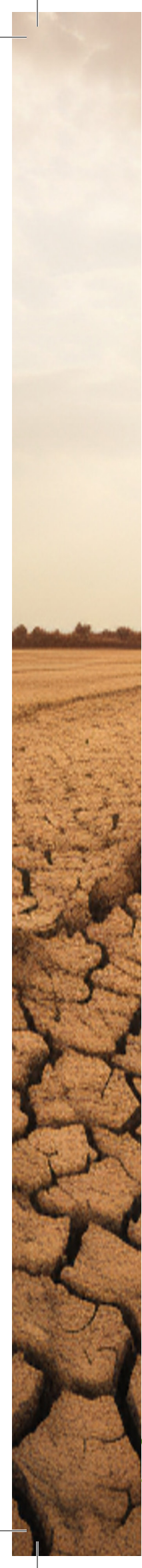
Measures n° 13 and 19 :

Implement the measures recommended in the NDC (2021-2030) and SDNC-RCC (2050) to achieve carbon neutrality by 2050 and implement a model action for adaptation and climate resilience: “Kerkennah model of ecological transition”.

Objectives	Stakeholders	Phasing	Activities: completed, in progress and planned
<p>Principal</p> <p>In 2050, Tunisia will be part of the economic, social and technological changes that will lead to a carbon-neutral society.</p>	<p>Government Presidency/ Ministry of the Environment/ public and private actors/ local stakeholders, NGOs</p>	<p>2023-2050</p> <p>4 key sectors : - energy; - industry; -agriculture and forestry; - solid / liquid waste</p>	<p>A complete break with the Business as Usual (BaU) scenario, leading to a 38% reduction in net emissions by 2030, a 77% reduction by 2040, and carbon neutrality by 2050.</p>
<p>1</p> <p>Laying the foundations for a sustainable energy transition</p>	<p>Ministry in charge of energy/ Private sector/ Communes/ NGOs</p>	<p>4 key programs :</p> <ul style="list-style-type: none"> - Energy efficiency - Renewable energies - Electrification of uses - Energy Sobriety 	<ol style="list-style-type: none"> 1. 3-fold reduction in primary energy intensity between 2020 and 2050 2. 2-fold reduction in primary energy consumption in 2050 compared to BaU 3. Electrification rate: 43% by 2050 4. Renewable Energy penetration: 40% of primary energy balance in 2050 5. Renewable Energy penetration: 80% of electricity production in 2050
<p>2</p> <p>Clean, sustainable and competitive industry</p>	<p>Ministry in charge of industry/ Private sector/ NGO</p>	<p>3 key sectors :</p> <ul style="list-style-type: none"> - building materials industry, - chemical industry - refrigeration industry 	<ol style="list-style-type: none"> 1. Virtual elimination of nitric acid emissions 2. Use of CCS in the cement sector from 2040, neutralizing process emissions by 2050 3. Full compliance with the Kigali Amendment for HFCs, leading to a 6-fold reduction in emissions in 2050 compared to BaU



<p style="text-align: center;">3</p>	<p style="text-align: center;">Improved food security and sustainable conservation of vulnerable and productive ecosystems</p>	<p style="text-align: center;">Ministry of Agriculture/ Private sector// NGO</p>	<p>5 key programs</p> <ol style="list-style-type: none"> 1. Restoration of agricultural soils through integrated actions to restore/preserve land and ecosystems, and optimize their use. 2. Livestock optimization 3. Improving cereal production through integrated actions. 4. Good agricultural practices (GAP) and conservation agriculture 5. Promotion of biological agriculture 6. Promotion of peasant agriculture which allows dynamic conservation of indigenous genetic resources among farmers, essential to guarantee the continuity of the adaptation of this germplasm to climate change 	<ol style="list-style-type: none"> 1. By 2050, cover 43% (4.3 million ha/10 million) of land used for agriculture (including rangelands) through integrated actions to restore/preserve land and ecosystems and optimize their use. 2. 100% coverage of cattle and sheep by 2050 through livestock optimization actions 3. 342,000 hectares covered by Good Agricultural Practices and conservation agriculture on cereal land in 2050 4. 660,000 hectares covered by biological agriculture in 2050
<p style="text-align: center;">4</p>	<p style="text-align: center;">Ministry in charge of the environment /NBG / private sector// NGO</p>	<p style="text-align: center;">Laying the foundations for circular waste management</p>	<ol style="list-style-type: none"> 1. 20% reduction in the quantity of household waste produced (kg/inhabitant/day) in 2050 in urban areas and 10% in rural areas, compared with 2020. 2. 36% material-recycling rate for household waste by 2050. 3. Systematic electrical recovery (100%) from landfills equipped with degassing/torching systems. 4. 70% organic (compost) and/or energy (RDF and electricity) recovery from waste by 2050 5. Generate 1 million tonnes of alternative fuels (RDF, etc.) from waste by 2050, to supply 60% of the cement sector's thermal energy needs. 	



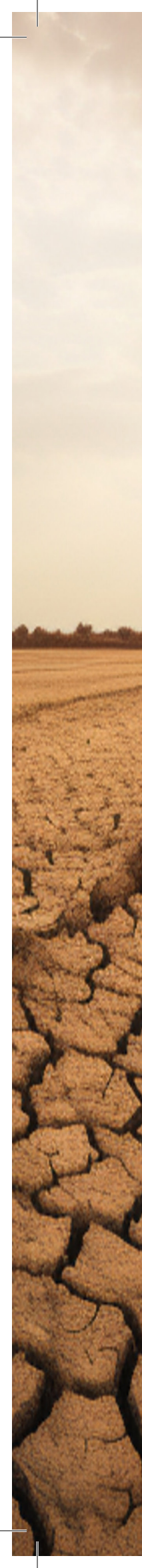
<p>5</p>	<p>Implementation of the strategy at local level, starting with the «Kerkennah ecological transition model» project</p>	<p>Ministry in charge of the environment/ Ministry of the Interior/ Ministry in charge of Energy/ Private sector/ NGOs</p>	<p>2024-2030</p>	<p>Kerkennah sustainable island project:</p> <ul style="list-style-type: none">- The island has already been awarded the «Sustainable Island label» by SMILO (Small Islands Organization), and economic and urban activities are based on the principle of ecological transition.- Soft mobility, with improved air links to the mainland in case of emergency (particularly health)- Restoration and rational management of ecosystems- Model waste management system (plastic-free, circularity, recycling, composting)- Use of solar and wind energy (end-of-life recovery systems)- Rehabilitation of charfyas and banning of plastic traps- Reuse of treated wastewater, rainwater collected and used, seawater desalinated and used, water generated from the air
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Measure n° 15:

Implement sectoral strategies for adaptation and resilience to climate change in agriculture, health and coastal areas

Objectives	Stakeholders	Phasing	Activities: completed, in progress and planned
<p>Principal</p> <p>Include Tunisia in the economic, social and technological changes that will lead to a carbon-neutral society</p>			
<p>1</p> <p>Strengthen the adaptive capacities of natural and human systems,</p>	<p>All Ministries Public sector Private sector Local authorities NGOS Technical and financial partners</p>	<p>A portfolio of 9 adaptation and mitigation projects was proposed for multinational and bilateral climate finance on May 25-26, 2023 at the Conference on Investment for the Implementation of Tunisia's NDC, in partnership with NDC-Partnership</p>	<p>9 concrete projects are proposed to contribute to the realization of measure 15:</p> <p>15.1 Mobilization of climate change actors, through the strengthening of the National Forum of Climate Change Actors (FNACC), composed of around 70 members from different sectors (NGOs, private sector, local actors, media and young negotiators) set up in 2021 with the support of GIZ and the backing of UNDP, with a view to engaging in ongoing dialogue and supporting initiatives by non-governmental actors for the implementation of national climate policies.</p> <p>15.2 Flood protection for the southern and western areas of Greater Tunis and the city of Béja, which have a population of around 1.2 million and are subject to intense and frequent stormwater runoff and sometimes severe flooding.</p> <p>15.3 Project to support sustainable urban mobility, as part of the implementation of the National Plan for Sustainable Urban Mobility (PNMUD) validated by the Restricted Ministerial Council (7.5.2020), with a view to helping reduce GHG emissions from urban passenger mobility by 12% by 2030, i.e. 340,000 tCO2 over 10 years.</p> <p>15.4 NEXUS Water, Energy and Food approach, as part of an integrated approach that takes into account social, ecological and economic aspects by exploiting the same resources that are considered scarce today, the aim being to ensure a transition towards agricultural production systems that are more resilient to the impacts of CC while improving the living conditions of local populations that use the resources.</p> <p>15.5 Support for local investment to implement NDC, with a view to providing local services that emit less greenhouse gas and are more respectful of the environment, particularly in the fields of energy and household and similar waste management. These investments will be implemented in 5 communes (Tunis, Kairouan, Sousse, Nabeul and Kébil).</p>
<p>2</p> <p>Making Tunisia resilient to CC, with an inclusive and sustainable development model</p>			

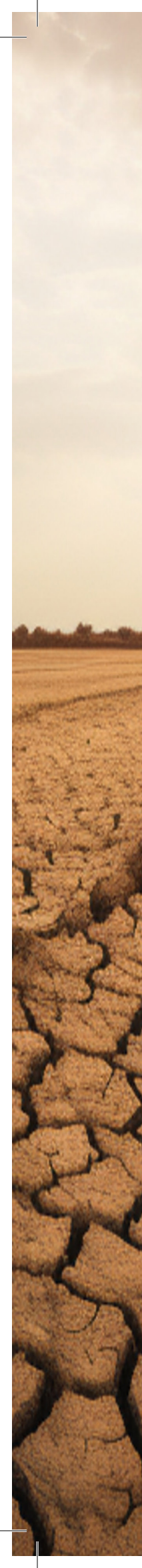


				<p>15.6 Transfer of excess water from the north, discharged into the sea, to central Tunisia, via the installation of infrastructure for the transfer of excess water to supply drinking water and recharge the water table in the center of the country (Kairouan region).</p> <p>15.7 Restoration of degraded cork oak and Aleppo pine forest ecosystems to re-establish their key ecological functions and processes, in order to participate in national and global efforts to sequester carbon and mitigate the effects of climate change: cumulative emissions reduction of around 10,000 gigatons of CO2 over a 20-year period at a rate of 500 gigatons of CO2/year.</p> <p>15.8 Strengthening coastal adaptation and resilience to CC by improving technologies and measures for monitoring and assessing coastal ecosystems, and by adapting the coastline to CC through flexible, nature-based solutions and the enhancement of coastal and marine ecosystem services (sites on the northwest coast of the Gulf of Tunis and the east coast of Djerba Island).</p> <p>15.9 Recovery of household and similar waste (Gabès and Bizerte governorates)</p>
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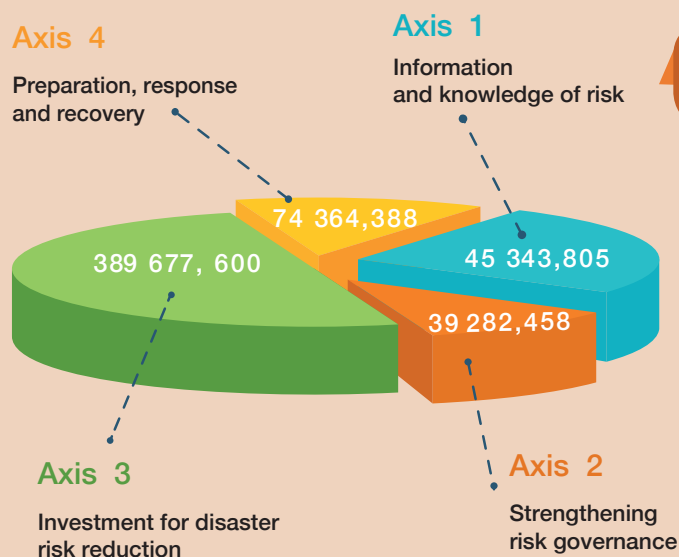
Measures n° 17 and 18:

Establish a national early warning system and implement the National Disaster Risk Reduction Strategy and its action plan for 2030

Objectives	Stakeholders	Phasing	Activities: completed, in progress and planned
<p>Principal</p> <p>Establish a national early warning system linked to specialised international networks as part of the implementation of the National Disaster Risk Reduction Strategy and its 2030 Action Plan.</p>	<p>Presidency of the Government Ministry of the Environment Ministry of the Interior National Institute of Meteorology (INM) 24 governorates 350 municipalities</p>	<p>2023-2030</p>	<p>Activities carried out: The National Disaster Risk Reduction Strategy (SNRRC) for 2030 has been developed and submitted to the UN authorities.</p> <p>It includes 18 Programs, 29 activities 89 actions which are intended to complement the existing national system of organization of relief based on the existence of a National Commission and sectoral commissions, as provided for by Law No. 91-39 of June 8, 1991, as modified and supplemented by subsequent texts.</p> <p>Five (5) Tunisian cities (Aïn Draham, Bou Salem, Tataouine, Gabès, Mateur) benefit from early warning programs developed within the framework of international cooperation and three (3) others are scheduled by 2025.</p> <p>The DESINVENTAR database intended for archiving disasters with assessment of losses and damage caused, software developed by the United Nations Office for Disaster Risk Reduction (UNDRR) and documented for the first time in 2013 in Tunisia (period 1982-2012), is being updated in 2023</p>
<p>1</p> <p>Strengthening disaster risk management</p>			<p>Current and planned activities: A Memorandum of Understanding was signed on June 20th, 2023 between the ministers in charge with environment and finance within the framework of Pillar IV of the PIRC-ResCat (2021-2027), the aim being the establishment of a National Platform for Disaster Risk Management (PN-GRC) placed at the highest level of Government, to be charged with coordination and monitoring DRR at the national level and a Permanent Resilience Structure (SPR) as secretariat of said platform.</p>
<p>2</p> <p>Improve information and knowledge of risks</p>			<p>Current activity:</p> <ul style="list-style-type: none"> - integration of resilience principles into new texts, particularly in the draft environmental code



<p style="text-align: center;">3</p> <p style="text-align: center;">Ensure continuity of services, strengthen infrastructure resilience and reduce social vulnerability</p>		<p>Activity carried out: organization in Tunis of the Arab-African Forum on Science and Technology under the theme: "Towards a resilient future: interconnection between public policies, the private sector, science and technology in the service of DRR" (2 -Oct 3, 2023)</p> <p>Planned activities:</p> <ul style="list-style-type: none"> - installation of a connected measurement unit, a command center and a network of experts, as well as a database of available equipment and their location for rapid mobilization. - Follow-up and implementation of the Arab-African Tunis Appeal on science and technology for disaster risk reduction - Supporting municipalities to engage in the global initiative "Making Cities Resilient 2030" (MCR 2030) aimed at making cities inclusive, safe, resilient and sustainable by 2030, thereby contributing to the achievement Sustainable Development Goal 11 and other global frameworks, including the Sendai Framework for Disaster Risk Reduction and the Paris Agreement.
<p style="text-align: center;">4</p> <p style="text-align: center;">Reduce the impacts and recurrence of disasters</p>		<p>Ongoing and planned activities:</p> <ul style="list-style-type: none"> - strengthening the resilience of new and existing critical infrastructure to ensure that it remains safe, efficient and operational during and after disasters to provide vital and essential services. - Strengthening financial protection through the definition, adoption and implementation of a financial strategy combining sovereign financial instruments with insurance solutions from the private sector (ongoing PIRC activity) <p>Planned activities:</p> <ul style="list-style-type: none"> - It is planned to develop preparedness, response and contingency plans, as well as protocols and procedural manuals and recovery plans at the national, regional and local levels. - It is planned to strengthen the coastal observatory placed at APAL with hardware and software resources to operationalize the climate change monitoring and surveillance network and to feed the submergence and erosion risk models. and flooding linked to the impacts of climate change with reliable data.



NSDRR ACTION PLAN

Indicative budget for the implementation of the DRR action plan

Total Indicative Budget (TD):
548 667,525

On June 26th, 2023, during the conference addressing National Baselines for the Ecological Transition (NBET), five (5) out of seven measures (13, 15 (15-1 to 15-9), 17, 18, and 19) were proposed for consideration by participants as priority actions. These measures are to be promptly undertaken with the aim of implementing Axis 2 of the NSET, leading to discussions in Working Group No. 2. The group was chaired by Mr. Samir SAIED, Minister of Economy and Planning, who inaugurated the discussions by underscoring the escalating threat of climate change in Tunisia. He emphasized that the effects of climate change could become irreversible without effective and urgent measures.

The Minister highlighted that climate change is significantly impacting all sectors and territories in Tunisia, with far-reaching repercussions on socio-economic development and the well-being of its citizens. He stressed that no sector, region, or individual in Tunisia is spared from the consequences of this phenomenon. In particular, he drew attention to the current manifestations and effects of climate change on water resources and food security.

Mr. SAIED concluded by emphasizing the urgent necessity of transitioning towards a sustainable development model that is environmentally friendly, emits fewer greenhouse gases, and contributes less to global warming. This includes expediting the implementation of the energy transition and laying the foundations for a circular economy, especially in the area of waste management.

Following this, a presentation of the main measures of the strategy (Axis 2) ensued, focusing on the following objectives:

- Achieving carbon neutrality by 2050, with a particular emphasis on key sectors: energy, agriculture and forestry, industry, and waste management.
- Enhancing the resilience of sectors directly impacted by the effects of climate change. This includes water resources, agriculture, vulnerable ecosystems (coastline, forests, wetlands, and oases), tourism, and health.
- Establishing mechanisms and instruments to facilitate implementation, especially in the realms of governance, technological innovation, territorial planning, and financing.
- After a presentation by Mr. ZMERLI from the Ministry of the Environment, participants engaged in discussions, sharing their perspectives on the conditions required for the successful implementation of the NSET.



Discussions centered on the following key points:

- **Acceleration of the Energy Transition:** There was a consensus on the imperative to expedite the pace of the energy transition, aiming to achieve a minimum of 35% renewable energies in the electricity mix by 2035. Participants acknowledged that creating favorable conditions for private investment is a crucial challenge to meet this objective.
- **Enhancing Water Security:** There was a notable emphasis on the urgent need to ensure greater water security. This involves implementing projects focused on tapping into non-conventional water resources, including seawater desalination. The widespread adoption of advanced technological processes (tertiary treatment) for wastewater was also highlighted. This approach aims to guarantee water quality, enabling safe agricultural and industrial uses.
- **Circular Economy in the Textile Industry:** Representatives from the private sector in the textile industry expressed strong interest in establishing the foundations of a circular economy within the sector. This involves reusing raw materials and industrial water. To make significant progress in this area, there was recognition of the necessity to reinforce the legal framework and application standards.

The successful integration of the NSET's guidelines into sectoral priorities poses a significant challenge for the strategy's effective implementation.

- **Applied Research and Technological Innovation:** There was recognition of the crucial role of applied research and technological innovation, especially in areas such as energy efficiency, renewable energy, clean industry, and the circular economy. It was emphasized that support and incentive mechanisms must be established to encourage innovation, fostering the creation of high-tech startups and companies with substantial potential for generating green jobs.
- **Commitment of All Stakeholders:** The effective implementation of the ecological transition necessitates the wholehearted commitment of all stakeholders, including ministries, public institutions, local entities, and the private sector. The proposed governance system should ensure the active participation of all actors, fostering ownership at the highest decision-making levels in Tunisia. Additionally, a robust framework for monitoring and evaluating achievements and gains is essential to gauge progress effectively.

The closing remarks by Mr. Samir SAIED, Minister of Economy and Planning, highlighted the following key points:

- **Improved Investment and Employment:** Given Tunisia's current context and priorities, there is a pressing need for enhanced investment and employment in the ecological transition. Achieving this transition will necessitate innovative financing mechanisms, emphasizing increased participation from the private sector through the establishment of public-private partnerships.
- **Focus on Social Sectors and Services:** Future government investments should shift towards prioritizing social sectors and services, including education, public health, basic infrastructure, and environmental services. Ensuring effective public-private partnerships will be crucial in securing investments for these sectors.
- **Promotion of High-Tech Businesses and Startups:** The ecological transition should actively foster the creation of new high-tech businesses and startups. These entities are envisioned to significantly contribute to the generation of economic wealth and employment opportunities.

SUSTAINABLE MANAGEMENT OF RESOURCES AND ECOSYSTEMS





AXIS 3 ➤

SUSTAINABLE MANAGEMENT OF RESOURCES AND ECOSYSTEMS

The third axis of the NSET (National Strategy for an Ecological Transition) concerns the sustainable management of natural resources and ecosystems, which, in their diversity, undeniably constitute the natural capital upon which development relies. Their preservation for the benefit of future generations, and even their restoration and regeneration, must now be part of the state's investment effort.

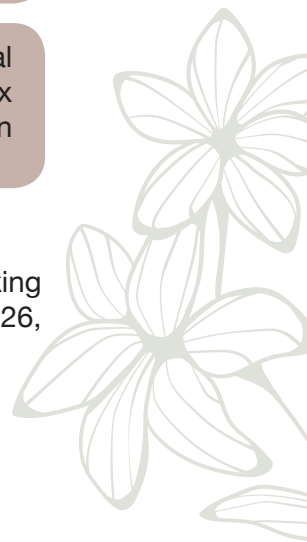
This area of intervention notably covers the development of a vision for sustainable and resilient agriculture: agroecology, which goes beyond organic farming and draws inspiration from agroforestry, in order to ensure both food security, social inclusion, and the sustainability of natural capital elements such as soils, water, forests, and ecosystems. Also emphasized are the protection, restoration, and regeneration of ecosystems (continental and marine) and biological diversity against all forms of nuisances and threats, including climate change, introduced and invasive species, and their valorization, such as the valorization of the blue crab in Sfax and Kerkennah (implementation of the Post-2020 Biodiversity Preservation Strategy until 2030), as well as the fight against desertification and soil degradation (implementation of the National Desertification Control Program 2018-2030).

Concretely, the implementation of this axis includes the following ten (10) measures:

- 20 Initiate a water-saving and loss-reduction program, including, among others: optimization of irrigation systems, domestic and institutional rainwater storage, and reuse of treated wastewater.
- 21 Valorization of treated wastewater; unconventional sources, marginal areas in agriculture, industry, and ecology; development of relevant standards.
- 22 Update the agricultural map by integrating sensitive areas to be protected and introducing agroecology and agroforestry.
- 23 Prepare an action plan for reducing the use of chemical pesticides in agriculture and for eliminating hazardous health-damaging products and expired pesticides, and accelerate activities to reduce persistent organic pollutants (POPs).

- 24** Implement the national biodiversity protection action plan 2018-2030, including measures for the conservation and reproduction of national genetic resources.
- 25** Adopt and implement the Blue Economy Strategy, with identified measures in various areas of action.
- 26** Launch a program to expand protected marine and coastal areas, inspired by the global and Mediterranean goal of 30% by 2030.
- 27** Develop and implement a program for rehabilitating degraded soils, within the framework of the updated National Desertification Control Action Plan (PAN-LCD).
- 28** Commit to land degradation neutrality.
- 29** Develop and implement a sustainable development action plan for traditional oases, drawing inspiration from the pilot project carried out in 2018/19 in six (6) oases, with the support of the World Bank (1 in Kébili, 1 in Gabès, 3 in Tozeur, and 1 in Gafsa).

Among these ten (10) measures, seven (7) were proposed for consideration by working group No. 3 during the National Environmental Transition Summit (ANTE) on June 26, 2023 (measures No. 20, 21, 23, 24, 26, 29) and are detailed below.



Measure n° 20 :

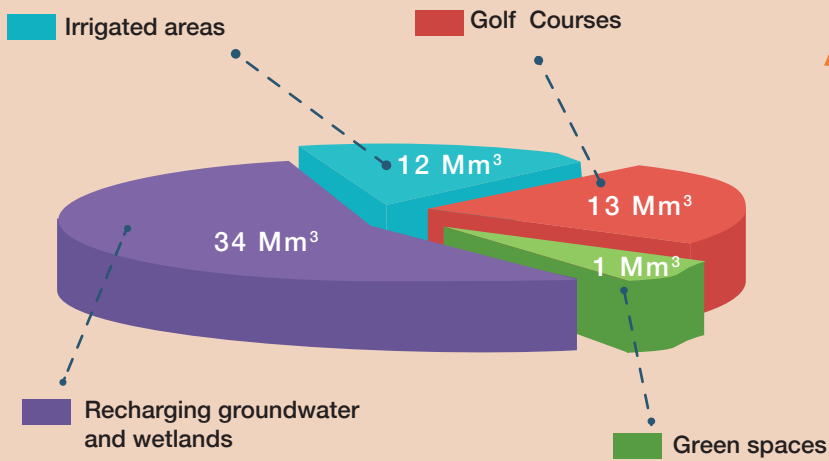
Initiate a water conservation and loss reduction program

Objectives		Stakeholders	Phase	Completed, ongoing, and planned activities
Principal	“Implement a water conservation and loss reduction program.	Ministry of Agriculture, Water Resources, and Fisheries Ministry of the environment (ONAS)	2023-2050	<p>The Switch from demand management to supply management is a necessity that entails a revision of water management approaches. It is important to expedite the enactment of the new Water Code, taking into consideration the measures and recommendations advocated in the Water 2050 study. This study led to the development of the Water 2050 Strategy and its Action Plan, finalized in 2023, which define the future directions to ensure water security by 2050. (Link to the Water 2050 Strategy - see Ministry of Agriculture)»</p>
	«Optimizing irrigation systems.»			
	Collect, store, and use rainwater (households and institutions)			
3	Reutilize treated wastewater by implementing widespread secondary and tertiary treatment.»			<p>The plan is to enhance the development of specific areas irrigated by treated wastewater, improve the quality, and transfer treated wastewater to areas in need. The revision of the NT 106.03 standard is also being considered.</p> <p>Out of the 130 existing wastewater treatment plants (WWTPs), 27 are equipped with tertiary treatment technologies and process approximately 25 million cubic meters per year. The ambition is to achieve tertiary treatment for all WWTPs by 2050 and complete reuse in various development sectors.</p>

Measure n° 21 :

Valorization of treated wastewater and unconventional hydraulic resources

Objectives	Stakeholders	Phase	Completed, ongoing, and planned activities
<p>Principal</p> <p>Utilize all unconventional water resources, including brackish water (for industrial, agricultural, and ecological purposes), and develop relevant standards."</p>		<p>2018-2026</p> <p>2020- 2027</p> <p>2018-2026</p>	<p>Mediterranean Pollution Control Sanitation Program (DEPOLMED): Governorates: Tunis, Ariana, Manouba, Ben Arous, Nabeul, Sousse, Kairouan, Mahdia, Monastir, Gabès, Médenine, Tataouine, and Tozeur.</p> <p>Rural Sanitation Program – Phase 4 (PAR 4): 36 rural localities (spread across 13 governorates) benefiting approximately 131,000 residents.</p> <p>Mediterranean Pollution Control Sanitation Program (DEPOLMED): Governorates: Tunis, Ariana, Manouba, Ben Arous, Nabeul, Sousse, Kairouan, Mahdia, Monastir, Gabès, Médenine, Tataouine, and Tozeur.</p> <p>Rural Sanitation Program – Phase 4 (PAR 4): 36 rural localities (spread across 13 governorates) benefiting approximately 131,000 residents.</p> <p>Water Sanitation Improvement Project in Cities across 10 Governorates (Bizerte, Zaghuan, Béja, Siliana, Kef, Jendouba, Kasserine, Sidi Bouzid, Sfax, and Kébili).</p>
<p>2</p> <p>Expand and upgrade sanitation infrastructure in supported cities and extend sanitation services to non-supported cities</p>	<p>Ministry of Environment ONAS</p>	<p>2019-2025</p> <p>2010-2025</p> <p>2010-2025</p> <p>2014-2026</p> <p>2018-2026</p>	<p>Sanitation Program for Small Municipalities with fewer than 10,000 inhabitants (33 municipalities): Construction of 24 new wastewater treatment plants and the establishment of associated networks and equipment.</p> <p>Sanitation Program for 10 Medium-Sized Cities: Tajerouine, Dahmani/El Ksour, Thala, Fériana, Redayef/Moulares, Souassi, Takelsa, and Souk Lahad.</p> <p>Extension and Rehabilitation Program for Wastewater Treatment Plants and Pumping Stations, including 13 wastewater treatment plants: Nabeul, Nefta, Kasserine, Sidi Bou Ali, El Jem Ouerdane, Sahline, Gafsa, Gromballia, Menzel Bouzeifa, Sidi Bouzid, Mahdia, and Mahres.</p> <p>Lake Bizerte Pollution Control Program - Upgrading of 3 Wastewater Treatment Plants: Bizerte, Menzel Bourguiba, and Mateur.</p> <p>Sanitation Program for Industrial Zones in Sfax, Oued El Bey, Moknine, Utique, Enficha, Medjez El Bab, Bir el Kassa, Bizerte, and Monastir.</p>
<p>3</p> <p>Promote the energy and material recovery of sludge from wastewater treatment plants on a widespread basis.»</p>		<p>2019-2024</p>	<p>Energy efficiency program through the optimization of energy consumption in wastewater treatment plants (WWTPs).»</p>



Areas of Reuse

Reuse percentage
20%

Total volume of Treated Used Water (TUW) reused

60 Mm³

Areas for valorizing treated water

Green spaces

1 Million of m³ (450 ha)



Golf courses

13 Millions of m³ (1050 ha)



Recharging groundwater and wetlands

34 Millions of m³



Irrigation perimeters

(7 590 ha) 12 Millions of m³



Measure n° 23 :

Prepare an action plan for the reduction of chemical pesticide use in agriculture

	Objectives	Stakeholders	Phase	Completed, ongoing, and planned activities
Principal	<p>“Prepare an action plan for the reduction of chemical pesticide use in the agricultural sector</p>			
1	<p>Eliminate hazardous products, including expired pesticide</p>			
2	<p>Cease the use of highly hazardous pesticides banned in developed countries</p>	<p>Ministry of Agriculture, Water Resources, and Fisheries Ministry of the environment Ministry of Health</p>	<p>2023-2030</p>	<p>To protect its population and maintain its international markets, Tunisia is urged to develop an action plan for the reduction and rationalization of the use of chemical pesticides, especially since Tunisia has ratified the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants.</p> <p>It is proposed to adhere to the FAO International Code of Conduct on the Distribution and Use of Pesticides (1987).”</p> <p>Planned activities: Substitution of chemical pesticides by natural pesticides derived from plants that respect the environment and are effective in the fight against pests, in particular evaluation of the interest of forest species with medicinal virtues (essential oils and extracts) for the defense of crops (BNG)</p>
3	<p>Accelerate activities to replace the use of Persistent Organic Pollutants (POPs) with less harmful alternatives.»</p>			

Measure n° 24 :

Implement the National Biodiversity Protection Strategy and Action Plan (SPAN-PB) 2018-2030 link to SPAN-PB

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal</p> <p>“Implement the National Strategy and its National Biodiversity Protection Action Plan 2018-2030, including measures for the conservation and reproduction of national genetic resources</p>	<p>Ministry of Agriculture, Water Resources, and Fisheries/ NBG Ministry of Health</p>	<p>2018-2030</p>	<p>« Tunisia, like other parties to the Convention on Biological Diversity (CBD), has developed a National Biodiversity Protection Action Plan (2018-2030) and submitted it to the Convention’s Secretariat. There are plans to continue establishing red lists of threatened species and habitats.</p>
<p>1</p> <p>Conserve ecosystems and biodiversity (habitats and species) and expand the area of marine and terrestrial protected areas</p>			<p>For the conservation of ecosystems</p> <ul style="list-style-type: none"> - 4 marine protected areas are in the process of official creation (decrees submitted for examination). - 42 sites are listed on the Ramsar List of Wetlands of International Importance, and their management plans are under development. - 26 terrestrial parks and nature reserves.



<p>Conserve genetic resources and promote them in national agriculture. Repatriate Tunisian accessions and integrate them into national agriculture (BNG)</p>		<p>Ongoing activities: Continuation of the free distribution by the National Gene Bank (BNG) of seeds of the Mahmoudi wheat variety, as well as other indigenous resistant varieties gradually, to farmers</p> <p>Current and planned activities: Installation of a gene bank in the Takelsa orchard.</p> <ul style="list-style-type: none"> -Conservation and valorization of the genetic resources of the olive tree in Tunisia. -Characterization and ex situ conservation of the Tunisian Maltese. Conservation and valorization of the genetic resources of the Tunisian caper tree -Conservation and valorization of Tunisian rosehip genetic resources -Conservation and valorization of Tunisian oregano genetic resources - Definition of ecologically sustainable cultivation techniques for indigenous plant species with high nutraceutical and medicinal value - Support for prospecting and collecting local Tunisian germplasm in order to enrich the collection kept at the BNG in situ, ex situ and among farmers - Upgrade of the conservation process within the BNG according to international gene bank standards. - Upgrade and inventory of existing genetic resources preserved at the BNG - Establishment of a monitoring and use program for genetic resources preserved at the BNG: control of their viability, possible regeneration, multiplication, characterization, evaluation, valorization, dissemination - Establish mechanisms for the exchange of genetic resources in order to legally and institutionally regulate the flow of local germplasm on a national and international scale - Consolidate the repatriation of Tunisian genetic resources stored in foreign gene banks. - Proposal for a revision of Law No. 99-42 relating to seeds and plants which constitutes a brake on the expansion of indigenous varieties in Tunisian agriculture and therefore contributes to the loss of local biodiversity. - Subdivision of the National Bank of Genes into community gene banks or by designating regional focal points (branches) throughout the Tunisian territory. (Focal point by CRDA or by Regional Directorate of the Ministry of the Environment) - Support and encouragement of initiatives to promote local genetic resources through labeling. - Involve the BNG in establishing red lists of threatened species and habitats - Develop and promote the agricultural, medicinal, cultural and social potential of indigenous genetic resources preserved at the BNG in partnership with the various local, regional and national stakeholders - Management and sustainable use of forest plant genetic resources through ecological cultivation techniques (BNG)
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Measure n° 26 :

Implement the National Plan to Combat Desertification (PAN-LCD) 2018-2030.”

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal</p> <p>Implement the National Plan to Combat Desertification (PAN-LCD)</p>			<p>Due to its geographical location, Tunisia is situated in an arid and semi-arid region, with approximately 10 thousand hectares annually subjected to desertification and land degradation due to natural and anthropogenic factors. More than three-quarters of the country are threatened by desertification, with the greatest threat observed in arid regions (southern and central Tunisia) and semi-arid regions (the ridge and parts of the northern Tell). These areas are respectively affected at rates of 77.6% and 16.4% of their total area.</p>
<p>1</p> <p>Restore and rehabilitate degraded soils.</p>	<p>Ministry of Agriculture, Water Resources, and Fisheries.</p>	<p>2018-2030</p>	<p>Throughout the national territory, 40.2% is highly sensitive to desertification, 31.7% is sensitive, and 5.5% is moderately sensitive. Tunisia has developed its National Action Plan to combat land degradation, aligning with the achievement of the Sustainable Development Goals (SDGs), particularly Goal 15 and its Target 15.3, which pertains to achieving Land Degradation Neutrality (LDN).”</p>
<p>2</p> <p>Halt the conversion of forests into agricultural land or other uses</p>	<p>Ministry of the Environment.”</p>		
<p>3</p> <p>Increase the carbon sequestration capacity of forests and soils</p>			<p>«National program for planting 12 million trees every year (approximately one tree per citizen), to be carried out under the auspices of the highest state authorities.»</p>

Measure n° 29 :

Implement the Sustainable Development Action Plan for Oases to realize the National Sustainable Development Strategy for Oases (2014-2030)."

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal</p> <p>Implement the National Strategy for the Sustainable Development of Oases through its operational action plan."</p>			<p>Oases in Tunisia cover an area of over 41,000 hectares and are home to approximately 10% of the total population. There are 126 traditional/historical oases, around which 141 new palm groves, known as 'modern oases,' are clustered in four governorates: Gabès, Gafsa, Kébili, and Tozeur. A pilot project for the protection and valorization of these oases was carried out in 2018/19, covering 6 oases: 1 in Kébili, 1 in Gabès, 3 in Tozeur, and 1 in Gafsa. The positive results led the donors (World Bank/GEF) to propose financing a project for all traditional oases in Gabès, Tozeur, Kébili, and Gafsa, following the same approach. This project is part of the implementation of the Action Plan for the Sustainable Development of Oases, which includes 181 activities distributed across 9 strategic intervention areas:</p> <ol style="list-style-type: none"> 1) Strengthen the institutional and legal framework for oasis management, build the capacity of stakeholders, and ensure effective and efficient participation of oasis communities in strategy implementation. 2) Preserve non-renewable water resources and establish the basis for integrated and participatory resource management, optimizing exploitation systems and water economy. 3) Preserve oases' faunal and floral biodiversity, including the conservation of local date varieties, fruit trees, and annual crops, and enhance the integration of family farming. 4) Protect oases from pollution, sand encroachment, and floods, and improve urban planning to ensure perfect harmony between the oasis and its urban environment. 5) Ensure better management of oasis lands and sustainable development of their urban environment. 6) Enhance the economic profitability of the oasis agroecosystem through the conservation of traditional farming techniques, the introduction of innovative agricultural practices (organic farming, biodynamics, agroforestry, etc.), improved marketing conditions for agricultural products, and better utilization of oasis by-products. 7) Promote the socio-economic development of oases, create new employment opportunities, and develop income-generating activities. 8) Develop and promote the cultural, civilizational, and touristic potential of oases. 9) Facilitate better adaptation to climate change and prevention against extreme weather events.
<p>1</p> <p>Establish the foundations for integrated development of oases at all levels (agricultural, cultural, socio-economic, tourism, etc.) by preserving their natural and socio-cultural characteristics as civilizational heritage.</p>	<p>Ministry of Agriculture, Water Resources, and Fisheries.</p> <p>Ministry of the Environment</p> <p>Ministry of Tourism</p> <p>Ministry of Commerce</p>	<p>2014-2030</p>	
<p>2</p> <p>Create an enabling environment for the participation of all stakeholders at the local, regional, and national levels.</p>			



On June 26, 2023, during the National Conference on Ecological Transition, seven (6) out of ten (20, 21, 23, 24, 26, and 29) measures were presented to participants as priority actions to be undertaken immediately for the implementation of Axis 3 of the National Sustainable Development Strategy (NSTE). These measures were discussed within Working Group No. 3, chaired by Mr. Mohamed Moez BELHASSINE, Minister of Tourism. In his opening remarks, he presented the key elements of the Tourism Strategy 2035 and emphasized the importance of ecological transition in the development of tourism, which is one of the main pillars of the national economy. He also highlighted two critical aspects related to ecological transition : waste management and coastal erosion, which pose challenges to Tunisia’s coastal tourism industry in the face of international competition. Natural resources, particularly ecosystems, are experiencing increased degradation due to the lack of appropriate socio-economic valorization.

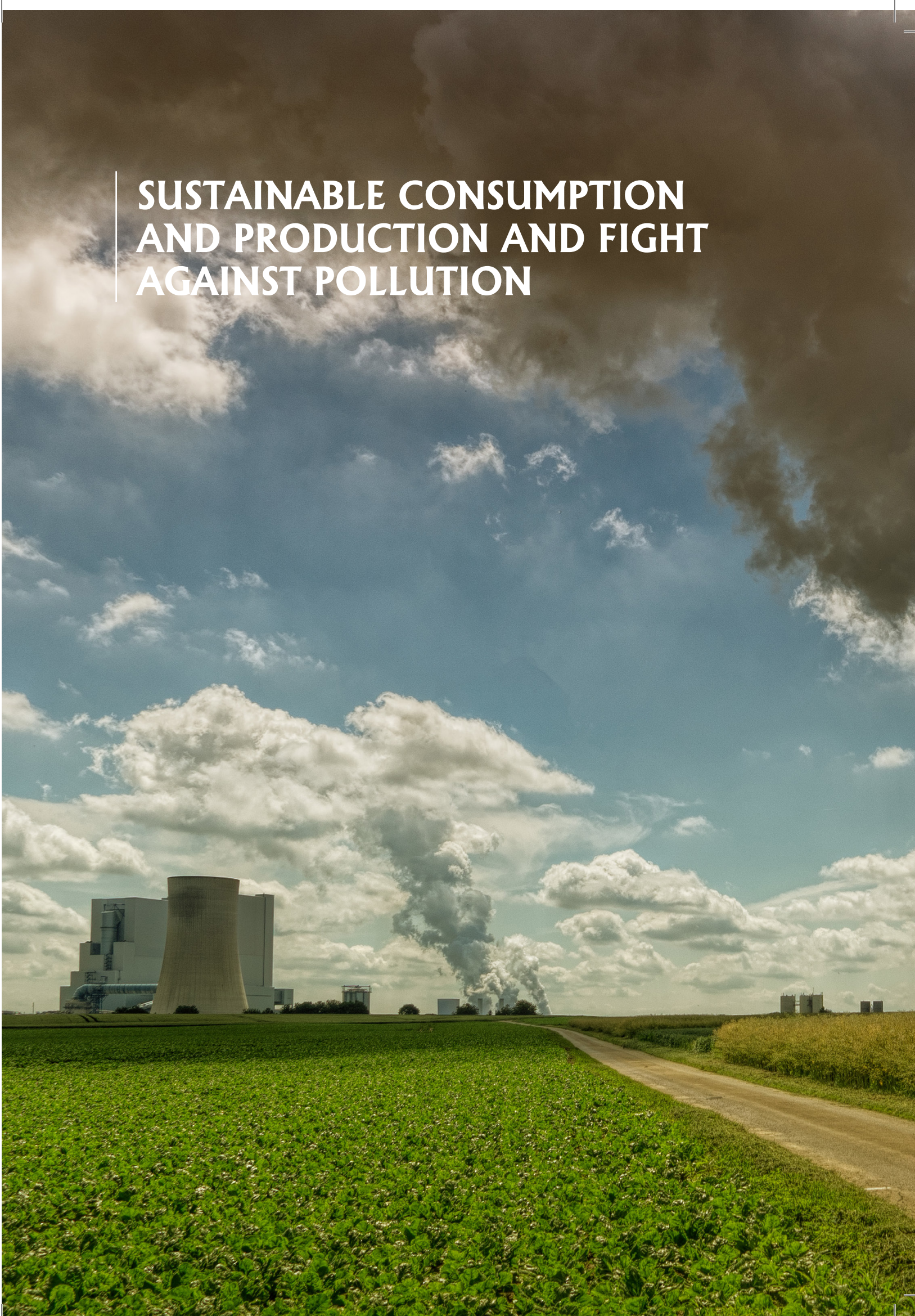
Following this introduction, a brief presentation of the priority measures related to sustainable natural resource management was given to open the discussion on each measure, their timelines, and the parties involved. It was also agreed to consider natural resources as a national security asset and give them the necessary importance.

As a result of this discussion, the following remarks and recommendations were made:

- » Link the subsidy granted to tourist municipalities by the Tourism Zones Protection Fund to environmental performance indicators.
- » Revise subsidy allocation procedures for hotels related to decarbonization and environmental management (eco-construction, waste management, water conservation, composting, etc.).
- » Ensure a balance between the protection and exploitation of protected areas.
- » Label products to ensure efficient management and promote domestic production (CITET is called upon to revive the labeling program).
- » Improve the productivity of national genes for their integration into agriculture.
- » Coordinate with the Ministry of Agriculture to implement the proposal to plant 12 million trees each year during the tree planting festival, opting for local species if possible, with economic value such as olive and bitter orange trees.
- » Emphasize the role of civil society in implementing the proposed measures and raising citizen awareness.
- » Stress the importance of capacity building for all stakeholders in an integrated manner.

In closing workshop, the Minister of Tourism emphasized the importance of coordination between various departments for the implementation of NSET. Its implementation is crucial for the implementation of other strategies, including the Tourism Strategy 2035, which relies on significant measures such as pollution control, the preservation of coastal assets, and ecosystem protection—essential elements for the development of sustainable ecotourism.

SUSTAINABLE CONSUMPTION AND PRODUCTION AND FIGHT AGAINST POLLUTION



AXIS 4 ➤

SUSTAINABLE CONSUMPTION AND PRODUCTION AND FIGHT AGAINST POLLUTION

The fourth axis of the National Strategy for Ecological Transition NSET focuses on sustainable production and consumption, as well as combatting all forms of pollution and nuisances. It forms the most significant aspect of the NSET and is divided into a series of sub-strategies, including the National Strategy for Comprehensive and Sectoral Circular Waste Management (SNGC-GSD) by 2023/2035/2050, which includes the National Strategy for Integrated and Sustainable Household and Similar Waste Management (SNGID-DMA) 2020-2035 (<http://www.collectiviteslocales.gov.tn/wp-content/uploads/2021/08/4.-2021-03-09-Strategie-Nationale-de-la-Gestion-des-Dechets-2020-2035.pdf>). This was initially presented on February 6th during a restricted ministerial council and later validated during a dedicated ministerial council on cleanliness held on May 16, 2023.

The objective is to establish modes and practices of production and consumption that limit resource overexploitation and environmental impacts while improving economic competitiveness and citizens' quality of life. This involves promoting a new economic paradigm based on the principles of green, blue, and circular economy.

Concretely, this axis includes the renovation and strengthening of mechanisms and instruments for pollution precaution and prevention, as proposed by the environmental code project (strategic environmental assessment - SEA, environmental and social impact study - ESIA, climate resilience study, mandatory and periodic environmental diagnosis - DEOP). It also involves modernizing and reinforcing environmental monitoring and pollution control mechanisms, progressively eliminating pollution hotspots and restoring contaminated sites, with a focus on the conversion of old, heavily polluting industries (e.g., a phosphate industry that is over 50 years old, the plastics industry).

This axis also includes the immediate implementation of the National Sustainable Production and Consumption Action Plan developed in 2016, the development of convenient, safe, and sustainable public transportation, and the promotion of electric and hybrid mobility within the framework of the Soft Mobility and Sustainable Transport Strategy by 2035 (http://www.tunisieindustrie.gov.tn/si2035/Livrable_7_Rapport_final.pdf). Furthermore, it encompasses the implementation of the Green and Resilient Industrial Strategy aimed at transforming production systems and resource efficiency (water, energy, and materials), the implementation of the Energy Transition Strategy by 2035 (https://procurement-notice.undp.org/view_file.cfm?doc_id=287291), the implementation of the Sustainable and Alternative Tourism Strategy by 2035 (Link to the Strategy - Ministry of Tourism), as part of the deployment of the Blue Economy Strategy.

Other aspects include the implementation of the 2020-2035 Strategy for Integrated and Sustainable Management of Household and Similar Waste, based on the circular economy, including the fight against plastic and chemical pollution. It also involves designing and implementing a national environmental health action program, including epidemiological surveys and health monitoring of populations, especially those most exposed to pollution.

A series of sixteen (16) measures has been identified to realize Axis 4 (numbers 30 to 45):

30. Implement the Energy Transition Strategy by 2035: energy efficiency and renewable energy. Collaboration between the National Energy Control Agency (ANME) and various sectoral departments is expected to contribute to reducing national energy intensity and ensuring a good coverage of primary energy demand by renewable energies.

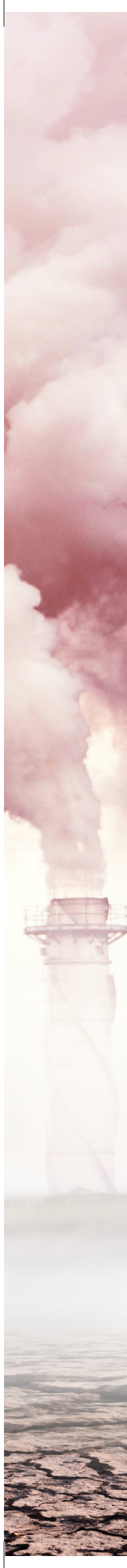
31. Officially adopt and implement the National Strategy for Integrated and Sustainable Household and Similar Waste Management (SNGID-DMA) by 2020-2035, based on the circular economy, including the fight against plastic and chemical pollution, as an integral part of the National Strategy for Comprehensive and Sectoral Circular Waste Management (SNGC-GSD) by 2035/50. In collaboration with the Ministry of the Interior, municipalities, and ANGED, this measure should enable the (re)organization of recycling chains, reduce landfilling (except for ultimate waste), and progressively rehabilitate old landfills.
32. Restore the special waste collection and treatment system and reactivate the Jradou center and related centers, and continue the program for the northern region (Bizerte).
33. Establish a support and guidance unit for investors in ecological transition, through the training of trainers and the development of guides for the three economic sectors (primary, secondary, tertiary), in collaboration with the Ministry of Vocational Training and Employment.
34. As part of the application of Law No. 2018-35 of June 11, 2018, on the social and environmental responsibility of businesses, establish a communication and support program for companies in terms of ecological and social commitment: integrated environmental audit and carbon footprint, in collaboration between ANPE, CITET, and professional organizations, aiming to deploy a communication program targeting an increase in the number of environmentally or socially responsible companies.
35. Modernize and strengthen mechanisms and instruments for pollution precaution and prevention, such as environmental and social impact assessment, climate resilience study, social impact assessment, in accordance with the proposals in the environmental code project presented in Axis 1.
36. Generalize tertiary and comprehensive wastewater treatment for all sewage treatment plants.
37. Modernize and strengthen environmental monitoring mechanisms and pollution control.
38. Implement the 2035 industrial strategy, including green and resilient economy measures and resource efficiency: water, energy, and materials.
39. Design and implement a support program for the integration of ecological transition within companies and public administrations and institutions (the state's exemplarity principle).
40. Update the National Environmental Health Action Program, including epidemiological surveys and health monitoring of populations, especially those most exposed to pollution.
41. Establish a sustainable consumption tax on all advertising media, with the obligation to display a message promoting ecological behavior on each advertising medium.
42. Prepare a roadmap for the remediation and conversion of all hotspots: Gabès, Gafsa, Kasserine, Sfax, Ben Arous, the Medjerda River Basin, etc.
43. Implement the National Sustainable Production and Consumption Action Plan developed in 2016.
44. Launch a national ecological building program.
45. Develop sustainable transportation: a plan for the development of clean, comfortable, secure, and accessible public transportation, with a strong emphasis on railways.

Among these sixteen (16) measures, seven (7) were proposed for consideration by working group number 4 during the National Ecological Transition Assembly (NETA) on June 26, 2023 (measures number 31, 32, 34, 39, 42, 43, and 44), and are detailed below.

Measure n° 31 :

Implement the National Strategy for Comprehensive and Sectoral Circular Waste Management (SNGC-GSD) by 2035/50.

	Objectives	Actors	Phase	Activités réalisées, en cours et projetées
Principal 1	Implement the National Strategy for Comprehensive and Sectoral Circular Waste Management of all types of waste (SNGC-GSD 2035/50) based on the circular economy and aiming for Zero Waste by 2050.	All ministries. Local authorities or municipalities Non-Governmental Organizations. Civil society. Citizen-consumers, The private sector	2023-2035-2050	Optimizing waste management systems for all types of waste is not only an environmental and health urgency but also an opportunity for material savings and valorization. Moving towards a circular economy and reducing negative impacts on the environment are top priorities.
2	Deploy the National Strategy for Integrated and Sustainable Management of Household and Similar Waste (SNGID-DMA) 2020-2035.	All Ministries. Local authorities or municipalities Non-Governmental Organizations. Civil society. Citizen-consumers, The private sector	2020-2035	launch of the establishment of waste treatment and valorization units, gradually replacing controlled landfills, whose rehabilitation is planned, and transitioning, in the 350 Tunisian municipalities, towards integrated and sustainable management of household and similar waste. This includes promoting source-separation, developing waste management processes, and integrating the informal sector.
3	Implement the Sectoral Plan for Reducing Plastic Pollution	All ministries. Local authorities or municipalities Non-Governmental Organizations. Civil society. Citizen-consumers, The private sector	2023-2035-2050	Revision of Decree No. 2020-32 regarding the prohibition of single-use plastic bags, with the aim of removing technical specifications. Implementation of the Plastic-Free Coastline Strategy (PFCS), in collaboration with the World Bank, as well as the TOUMALI project, based on the contribution of sustainable waste management systems in the tourism sector to protect marine ecosystems.



4	<p>Promote widespread composting and the reuse of treated wastewater.</p>	<p>All ministries. Local authorities or municipalities Non-Governmental Organizations Civil society Citizen-consumers The private sector</p>	<p>2023-2035-2050</p>	<p>Launch of the plan for the widespread implementation of composting, with the involvement of all government departments, particularly the Ministries of Interior, Tourism, and Agriculture (see http://www.anged.nat.tn/user_files/Des-sessions-de-sensibilisation-sur-le-compostage-photos.pdf, http://www.anged.nat.tn/user_files/Des-Visites-au-centre-de-tri-de-kalaa-Sghira.pdf),»</p>
5	<p>«Introduce rational and sustainable management of demolition and construction waste (DCW).»</p>	<p>All ministries. Local authorities or municipalities Non-Governmental Organizations Civil society Citizen-consumers The private sector</p>	<p>2023-2035-2050</p>	<p>Collection of demolition and construction waste (DCW), deposition, and transfer to dedicated sites (identified and proposed by municipalities or governorates) for future use as raw materials. Widespread dissemination of the results of the Re-Med project (2020-2023) and the distribution of the Operational Guide for the valorization of demolition and construction waste in road techniques (published in 2023) (insert link XX).»</p>

Measure n° 32 :

Restore the collection and treatment system for special waste.

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
Principal 1 Implement the National Strategy for Comprehensive and Sectoral Circular Management of all types of waste (SNGC-GSD 2035/50) based on the circular economy and aiming for Zero Waste by 2050.			«This system is intended to process the majority of special industrial waste generated in Tunisia and thus minimize the export of waste for treatment abroad: economic gain in foreign currency, ecological benefit, and social gain through job creation.
2 Exportation of waste stored at the Jradou center			waste stored at the Jradou center has been exported
3 Completion of the security works at the Jradou special industrial and hazardous waste treatment center	Ministry of Environment National Waste Management Agency		The security works at the Jradou special industrial and hazardous waste treatment center have been completed.
4 Completion of the compliance and fire prevention works in the reception, storage, and transfer facilities in Sfax and Gabès	Private sector Technical and financial partners	2023-2025	The compliance and fire prevention works in the reception, storage, and transfer facilities in Sfax and Gabès have been initiated.
5 Development of the procurement documents for the rehabilitation, financing, operation, and renewal of the three regional industrial and special waste treatment facilities located in the governorates of Zaghouan, Sfax, and Gabès as a PPP contract with a duration of 22 years			The general call for proposals notice No. PPP-27/2023 (July 28 to September 25, 2023) has been launched for the realization of rehabilitation works, financing, operation, maintenance, and renewal of special industrial waste management infrastructure in Tunisia; namely, Zaghouan center and two reception, storage, and transfer facilities in Sfax and Gabès in a single lot as a public-private partnership.»

Measure n° 34 :

Implementing the application of Law No. 2018-35 of June 11, 2018, on the corporate social and environmental responsibility (CSR) of companies and organizations

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal 1</p> <p>Integrating social responsibility into the regular operation of companies and organizations is aimed at «realizing the principle of reconciliation between businesses and their environmental and social context through their contribution to sustainable development and good governance,» particularly by committing to «take responsibility for the impact of their activities on society and the environment, through the adoption of a transparent behavior beneficial to society on a regional level» (Article 1).</p>	<p>Ministry responsible for the environment</p> <p>Ministry responsible for social affairs</p> <p>Ministry responsible for industry and energy</p> <p>Ministry responsible for transportation</p> <p>Office of the Prime Minister (Presidency of the Government)</p>	<p>2023-2025</p>	<p>Activity carried out : The CSR (Corporate Social Responsibility) approach in Tunisia aligns with the country's international commitments under the United Nations Global Compact (2000) and the 17 Sustainable Development Goals (SDGs) for the period 2015-2030, adopted in September 2015 by 193 UN member states as an action plan (Agenda) for the year 2030. This plan necessitates the implementation of multi-stakeholder partnerships where each party, including governments, the private sector, and civil society, is expected to play its part. The first national CSR conferences were held in Tunis in November 2017 to popularize the concept, highlight the success stories of Tunisian companies participating in the program, and provide an opportunity for new businesses to join. Subsequently, a national strategy (SNRSE) and a national CSR action plan were developed in 2018.</p> <p>The CSR law is in line with this perspective and applies to public institutions and public and private enterprises, requiring them to allocate resources for funding CSR programs that adhere to constitutional and universal principles (United Nations Charter on Corporate Social Responsibility, Universal Declaration of Human Rights, International Labour Organization Charters, and the Rio Declaration on Environment and Development).</p> <p>With this in mind, there are plans to establish a communication and support program for businesses in terms of environmental and social engagement. This includes the introduction of integrated environmental audits and carbon footprint assessments.</p> <p>CITET (the International Center for Environmental Technologies in Tunisia) supervises a partnership program aimed at integrating CSR into 100 companies in the automotive and aerospace sectors in Tunisia. This program involves the implementation of a capacity-building project and support for companies in both sectors, within the framework of the National Determined Contribution (NDC) and the National Low-Carbon Development Strategy (SNDBC-RCC), in collaboration with the Ministry of Industry and the Ministry of Transportation (CITET-UGPO Climate – GIZ). The goal is to enhance national expertise by training a pool of qualified experts in the field, equipped to assist companies in the ecological transition process (CSR and carbon footprint).</p>



2	Adopting the decree concerning the establishment of Regional CSR Steering Committees.		<p>Current activity : The Regional CSR Steering Committees are responsible for prioritizing the actions of companies, particularly in the following areas:</p> <ul style="list-style-type: none">- Environment and sustainable development- Rationalization of the use of natural resources and their valorization- Skills development and employment- Good governance. <p>Their composition, skills, and responsibilities are determined in accordance with the principles of neutrality, independence, and accountability.</p>
3	Adopting the decree regarding the composition, organization, and functioning of the National CSR Observatory to be established within the Presidency of the Government.		<p>Current activity :</p> <p>The CSR Observatory is responsible for:</p> <ul style="list-style-type: none">- Monitoring CSR programs and ensuring their compliance with good governance and sustainable development principles.- Reviewing the annual final reports submitted to it by the regional committees.- Compiling an annual report on the state of CSR to be submitted to the President of the Republic, the President of the Assembly of the Representatives of the People (ARP), and the Head of Government.- Awarding an annual prize to the best-performing company in line with the CSR principles.- Striving to achieve balance between regions and compensatory inequality in corporate social responsibility programs.- Establishing and managing an electronic platform for CSR.

Measure n° 39 :

Establish a support and assistance unit for investors in the field of ecological transition.

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Supporting companies in the implementation of ecological transition.</p>	<p>Ministry of Industry and Ministry of Environment, with the support of the Office of the Prime Minister.</p>	<p>2023-2025</p>	<p>Current activities: The ecological transition has a transversal dimension and requires integration and coherence of sectoral actions. CITET aims to ensure the transfer of clean technologies and support companies in environmental upgrading, technological innovation and labeling.</p>
<p>1 Training trainers in the field of ecological transition (certified training).</p>			<p>Planned activities: The success of the ecological transition requires capacity building of national experts and support for national companies and investors in the integration of the ecological transition and the various national and international support mechanisms. Collaboration with the Ministry of Employment and Vocational Training, as well as the Ministry of Higher Education and Scientific Research, should be considered from this perspective.</p>



2	<p>Developing sector-specific guides for the three economic sectors (primary, secondary, tertiary) to assist them in their ecological transition.</p>		<p>Ongoing activities: Adoption and implementation of practices related to eco-innovation, the circular economy and the environmental footprint of products in SMEs in the textile sector in 3 African countries (Tunisia, Kenya, South Africa), in as part of a three-year project launched by UNEP and funded by the EU (2021/23) entitled Innovative Business Practices and Economic Models in the Textile Value Chain (INTEX), led by CITET, in partnership with the Technical Center of textile (CETTEX) and the Monastir-El Fejja competitiveness cluster (MFC), including in particular the evaluation of the eco-innovation potential in the textile sector in Tunisia. Component II of this project concerns “Innovative business practices and economic models in the textile value chain” and focuses on “Implementation of eco-innovation and circularity solutions in SMEs”</p> <p>Launch by CITET of a Project to strengthen the green business ecosystem of the southern neighborhood based on the network effect and peer learning for sustainable green growth. The project aims to strengthen the capacities of business support organizations (OSEs) in terms of the green and circular economy and to strengthen their capacity to act, in order to promote a transition towards an inclusive green economy, to support green businesses and to stimulate sustainable economic development. ESOs act as ecosystem facilitators and will be supported to promote sustainable consumption and production practices with a view to bridging the gap between the policy level (macro) and the SME level (micro). The objectives are as follows:</p> <ul style="list-style-type: none"> - Strengthen the capacities of OSEs in networking on green economy opportunities and the transition to an inclusive economy - Strengthen the capacities of OSEs to promote sustainable consumption and production practices by SMEs <p>The countries targeted by the project are Egypt, Jordan, Lebanon, Libya, Palestine and Tunisia in order to promote a green transformation. These 6 target countries face similar challenges, such as limited access to finance and investment, cultural and societal barriers to selling green products, limited access to market information, regulatory barriers , competition from established players and export challenges</p>
3	<p>Establishing a support program for integrating ecological transition within the company.</p>		

Measure n° 42 :

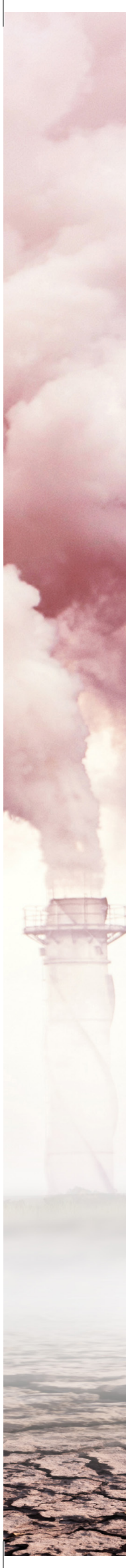
Prepare a Roadmap for the decontamination and reconversion of all hot spots: Gabès, Gafsa, Kasserine, Sfax, Ben Arous, Hammam-Lif, BVOM

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
Principal Develop a national action plan for depolluting industrial centers - hot spot			<p>Current and planned activities: Continued decontamination of industrial centers, particularly in Sfax (Taparura), Gabès (mining basin), Kasserine (SNCPA), Bizerte (EcoPact Project).</p> <p>Launch of the execution of the integrated depollution program for the Oued Medjerda watershed (ready since 2020), including a BVOM depollution and rehabilitation action plan and an environmental monitoring plan.</p> <p>Planned activities: other sites (particularly former mines) require rehabilitation and integration into the local economy, like the former sites operated by the Tunisian Fluorine and Barytine Company (FLUOBAR) in the Governorate of Zaghouan, for which rehabilitation studies have been carried out.</p>
1 Establish an inventory and a program for decontamination and rehabilitation of contaminated sites	Ministry of Industry and Ministry of the Environment, with the support of the Presidency of the Government	2023-2035	<p>Current and planned activities: The sites are known and certain studies carried out, but others require updating.</p>
2 Establish a financing plan taking into consideration international mechanisms			<p>Current activities The depollution of Lake Bizerte has been underway (EcoPact project) since 2013, its effective implementation began in 2018 and was entrusted to a Management Unit by Objectives (UGPO) of the Ministry of the Environment, in collaboration with the ministries of industry, energy and mines and heavy industries in the region.</p>
3 Remove phosphogypsum from the list of hazardous waste and regulate its recovery in agriculture, industry and export			<p>Current activities The removal of phosphogypsum from the list of hazardous waste established by Decree No. 2000-2339 of October 10, 2000, taken in application of Law No. 96-41 of June 10, 1996 on waste is under examination by a joint commission formed by the services of the ministries of the environment and industry and its use in industry and agriculture is the subject of a study by research laboratories.</p>

Measure n° 43 :

Implementation of the National Action Plan for Sustainable Consumption and Production (PANCPD, 2016).

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal 1</p> <p>Introduce sustainability and frugality as integral principles in the regular operation of public and semi-public entities, private businesses, and organizations, as well as in the practices and behaviors of citizen-consumers.</p>	<p>All ministries 24 governorates 350 municipalities Public sector Private sector Non-Governmental Organizations (NGOs) Consumers Partners for Technical and Financial Support</p>	<p>2023/35/50</p>	<p>Activities carried out: The PANCPD (Plan d'Action National pour la Consommation et la Production Durables), developed in 2016, is part of the National Sustainable Development Strategy (SNDD - 2014-2020) based on 9 priority challenges, 32 issues, 39 strategic axes, 112 action levers, and 90 indicators. This framework is centered around a vision called «The Tunisia We Want,» which aligns with the post-2015 objectives, specifically the 17 Sustainable Development Goals (SDGs) adopted by the international community in June 2015, extending until 2030.</p> <p>It serves as a tool for achieving sustainable development in Tunisia, focusing on two priority sectors: tourism and agri-food. The SWITCHMED program (I and II), which promotes sustainable consumption and production patterns in the South Mediterranean region, has been contributing to the realization of PANCPD since 2016. A booklet showcasing the best initiatives for promoting and creating green and decent jobs in Tunisia was designed in 2017 (https://www.environment.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Booklet_EV.pdf).</p>
<p>2</p> <p>Sustainably manage natural resources, especially in the tourism sector.</p>			<p>Activities carried out : Promotion of the sustainability of beach tourism and its adaptation to climate change, particularly by enhancing the quality of offerings and promoting environmental certification.</p> <p>Development of natural and cultural tourism through the improvement of the quality of offerings, capacity-building, the establishment of labeling, and the implementation of marketing strategies tailored to the country's natural and cultural specificities. Additionally, a guide on eco-tourism was developed in 2017 (https://www.environment.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Guide_EV_Ecotourisme.pdf).</p>



3	<p>Develop sustainable products using ecologically rational processes to optimize the consumption of energy, water, and other resources.</p>			<p>Activities carried out : As part of the SWITCHMED-Med-Test II program, a preliminary assessment of 26 industrial companies in Tunisia has demonstrated the potential for reducing resource consumption (water, energy, waste, CO2).</p> <p>Activities carried out : In October 2022 and January 2023, an accelerated training program lasting 12 days was conducted for 25 national trainers on the use of tools for developing green businesses. This training included the green business model canvas, green business/ecodesign plan, and market access.</p> <p>Current activity: In 2023, 8 trainers were selected to oversee the incubation phase of 16 project holders in three areas: waste valorization, the development of a platform for promoting sustainable tourism, and a platform for marketing between farmers and consumers. This phase includes the development of business plans, technical assistance, and fundraising efforts.</p> <p>Planned activities: Relaunch of the Tunisian ecolabel project led by CITET (optional certification system delivered following verification of product conformity to a set of technical and ecological criteria throughout its life cycle) through the activation of the process of renewal of the ecolabel framework, the implementation of the five-year strategy of the Tunisian ecolabel, the development of new certification standards for new categories of products, the conduct of pilot operations to support businesses to eco-label the selected products and the setting up of training programs for guides and auditors for the new selected products</p>
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4	<p>Ensure a sustainable food chain that enhances economic, social, and environmental performance throughout the product life cycle and promote the consumption of local and organic products.</p>			<p>Activity carried out : Participation of the Ministry of Environment in the development of a study for the selection of specialized pilot areas in organic agriculture, led by the Ministry of Agriculture (2013/14).</p> <p>Planned activities : Identification and characterization of ancestral Tunisian practices related to sustainable modes of production and consumption (MCPD): resource savings (water, energy, etc.), creation of green and sustainable jobs, promotion of short supply chains and local consumption.</p> <p>Current activity : Promotion of sustainable agricultural practices, including agroforestry and local know-how, with the recognition that in 2023, five Tunisian sites were classified as Globally Ingenious Agricultural Heritage Systems (SIPAM).</p> <p>For more information, please visit: https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/MCPD_Agroalimentaire_synthese.pdf</p>
5	<p>Promote sustainable public procurement (SPP).</p>			<p>Actions completed: Updating the national action plan for Sustainable Public Procurement (SPP), proposing regulatory texts to promote sustainable procurement by all public buyers, and organizing 8 training sessions in 2021/22.</p> <p>Ongoing actions: Currently developing a Sustainable Public Procurement Guide in three priority sectors (to be completed after validation by the Steering Committee of the choices proposed by the Study Bureau).</p>



<p>6</p>	<p>Foster a culture of sustainable consumption and encourage selective waste disposal.</p>		<p>Activity carried out : A Guide for Investors on Waste Management and Valorization was produced in 2017 (https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Guide_EV_Dejets.pdf).</p> <p>Current activity : The study on the circular economy in Tunisia is ongoing and includes the following components:</p> <ul style="list-style-type: none">- Development of relevant regulatory text. <p>Design and implementation of an electronic promotion platform.</p> <ul style="list-style-type: none">- Organization of two national roundtable discussions in 2023/24.- Production of communication materials, including one video and 200 brochures on the circular economy with presentations of best practices. <p>These activities are funded by the SwitchMed program through a grant of 107,000 US dollars (approximately 325,000 Tunisian dinars).</p> <p>Current activity : A regulatory text project related to source separation is under consideration, as well as the revision of Decree No. 2020-32, which bans the use of certain types of single-use plastic bags (SPPU) in 2023.</p>
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**National sustainable development strategy (SNDD) 2014-2020:
9 priority challenges, 32 issues, 39 strategic axes, 112 action
levers and 90 indicators**



Measure n° 44 :

Launch a national program for eco-friendly buildings.

	Objectives	Actors	Phase	Activités réalisées, en cours et projetées
Principal	<p>Integrate the ecological component and the consideration of environmental factors in the construction and public works sector (BTP), in public land development policies, in urban planning, and among the requirements applicable to building permits.</p>	<p>All ministries Public enterprises Private enterprises 24 governorates 350 municipalities Civil society - NGOs Technical and financial partners</p>	<p>2023/35/50</p>	<p>The integration of the ecological component and the consideration of environmental factors in the field of construction and public works, as well as in public policies, aim to promote the development of eco-friendly construction, reduce greenhouse gas emissions, direct corporate investments towards eco-construction, encourage the implementation of economic and ecological projects, contribute to the development of green professions, and participate in the success of high-value sustainable projects in collaboration with all stakeholders within a framework of high environmental quality (HQE). CITET contributes to the development of eco-construction via the creation of a technological network for this sector and pilot projects for the validation of ecological materials with the aim of minimizing the energy and environmental impact of the construction sector.. A Guide to HQE for Sustainable Construction was developed in 2018, and it is important to disseminate it widely (https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Guide_HQE_fr.pdf).</p>
1	<p>Promote a more balanced territorial development in the management of natural resources and environments.</p>			<p>It is proposed to integrate the principles of ecological land planning, eco-construction, and energy auditing into the project for revising the Land Planning and Urbanism Code and into the decree of April 17, 2007, related to building permits.</p>




2	<p>Improve the planning and management methods of cities.</p>			<p>Actions completed: Development of a standard specification document to facilitate the transition to the status of sustainable cities in November 2020 (https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/PNVD_ph3_Cahier_des_charges.pdf and https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/PNVD_ph3_guide_d_accompagnement.pdf).</p> <p>Ongoing actions: Conception and establishment of a Sustainable Cities Platform for the benefit of local communities.</p> <p>In 2021: Launch of a project to assist in the development and implementation of local Agenda 21s aimed at raising awareness, organizing, mobilizing, and supporting local communities and partners during the various phases of developing and implementing local Agenda 21s. (See https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Guide-AG21L.pdf)</p> <p>From 2022 to 2024: A pilot project for Kairouan as a sustainable city, conducted in collaboration with UNDP, GEF/GEF, and other partners (ANME, Ministry of Environment), primarily aimed at promoting thermally efficient buildings and efficient lighting.</p>
3	<p>Adapt building practices to the cultural and climatic specificities of Tunisia while promoting resource-efficient and energy-efficient construction.</p>			<p>The Guide to HQE is being disseminated among project stakeholders, including architects, engineers, developers, investors, users and future occupants, institutions, and local authorities. There are plans to expand this initiative at a national scale. A consultation was launched in late July 2023 to recruit a bureau or training center responsible for providing training in sustainable construction. Additionally, the UTICA has been organizing an Information and Exchange Day on eco-construction and innovation for the past fifteen years.</p>

On June 26, 2023, during the National Ecological Transition Conference, seven out of sixteen measures (31, 32, 34, 39, 42, 43, and 44) were proposed for consideration as immediate priority actions for implementing Axis 4 of the National Ecological Transition Strategy (NETS). These proposals were presented to participants for discussion and were part of the working group's deliberations. The working group, chaired by Mrs. Kalthoum BEN REJEB, Minister of Commerce, emphasized the significance of Axis 4 and the roles of various stakeholders in achieving ecological transition.

In fact, axis 4 revolves around a theme that aligns with one of the 17 Sustainable Development Goals (SDGs). It advocates a shift from the current mode of production and consumption, characterized by overconsumption of raw materials, energy, water, and space, along with overproduction of waste, towards a more efficient utilization of these resources with minimal pollution. It involves integrating environmental considerations into the production chain and adopting a systemic approach in planning actions.

The following recommendations were made:

- Organize a series of workshops involving local and regional stakeholders to gather maximum input and secure support for the proposed measures.
- Strengthen the regulatory framework to align with the requirements of the Ecological Transition Strategy, aligning it with environmental laws and international commitments.
- Review and harmonize the institutional framework for better governance across sectors.
- Align the ecological transition strategy with sectoral strategies (agriculture, industry, energy, transportation, health).
- Establish a timeline for implementing the recommended measures, with measurable and achievable intermediate objectives and indicators.
- Develop new standards and revise existing ones for resource use and emissions in each sector (agriculture, industry, tourism, etc.) to optimize resource utilization and enable monitoring and control.
- Prioritize proposed measures to ensure more targeted, rapid, and effective implementation. For example, in the fight against pollution, begin with measures targeting major polluters, such as state-owned enterprises responsible for 80% of national pollution, and revise their governance models to integrate environmental and social responsibility.
- Adopt a bottom-up approach and work synergistically with a collective and multisectoral approach during the development and implementation of recommended measures.
- Industrial upgrading should transition toward a more operational mode to ensure sustainability, linking environmental impact to the company's economic benefit.
- Implement regulations related to sustainable public procurement and clean production.
- Incorporate financial and tax incentives in the Investment Code.
- Implement measures and actions to influence consumer behavior for responsible and informed choices.
- Draw inspiration from international experiences in implementing transition strategies and adapt them to the national context.

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- Include the role of young entrepreneurs and activists as future change agents.
 - Review the polluter-pays principle by introducing imposed measures and monitoring indicators.
 - Promote scientific research and integrate smart solutions and new technologies into production chains.
 - Incorporate knowledge management within institutions.
 - Include the concept of the cost of environmental degradation in project evaluations.
 - Promote access to green financing by ensuring a conducive investment climate for ecological transition.
 - These recommendations aim to accelerate the ecological transition process and address key challenges within the framework of Axis 4 of the National Ecological Transition Strategy.



**SCIENCE, KNOWLEDGE AND
CULTURE AT THE SERVICE OF
ECOLOGICAL TRANSITION**



AXIS 5 ➤

SCIENCE, KNOWLEDGE AND CULTURE AT THE SERVICE OF ECOLOGICAL TRANSITION

The fifth axis of the NSET focuses on the development of environmental culture, science, and knowledge in favor of ecological transition. Indeed, the development of a well-established environmental culture in attitudes and behaviors is at the heart of the transformative change needed to initiate and succeed in the ecological transition of the country. Thus, the dissemination of environmental values (protection, prevention, rational management, combating pollution and waste) among public and private decision-makers, socio-economic actors, citizens of all ages, constitutes a major component of the NSET.

As a corollary to the development of environmental culture, the production of scientific knowledge and knowledge management are fundamental to any societal change toward sustainability. Scientific research, education, and training at all levels of education, including initial and continuous qualification of human resources (throughout life), must improve and benefit from adequate financial and institutional support, both public and private. It involves integrating innovations and facilitating a better mastery of technologies and innovations by socio-economic actors. This domain includes, in particular, promoting a culture of ecological transition among all socio-economic actors, through communication, education, and awareness targeting children, youth, economic operators, and the general public, as well as the development of scientific knowledge and interdisciplinary research in this field, as well as academic and professional training of human resources in all areas serving ecological transition.

Awareness, education, and continuous training on environmental and sustainable development issues are thus part of the state's priorities and form an essential triptych for supporting environmental public policies, particularly regarding the fight against climate change, the mitigation of its effects, adaptation, resilience to its impacts, and orientation towards ecological transition. The overall vision of this fifth axis of the NSET is to establish a new approach to environmental and sustainable development education (EEDD), which is qualitative, adapted to socio-economic, environmental, and cultural developments, through the modernization and innovation of the educational and pedagogical system and teaching tools.

Axis 5 thus forms a fundamental part of the NSET and is itself broken down into eight (8) measures, namely:

46 Establishing a permanent and transdisciplinary panel of experts for the study of climate, biodiversity, and land degradation, connected to specialized international networks (IPCC, IPBES, and the Permanent Secretariats of International Conventions). It should be allocated an annual budget to mobilize transdisciplinary experts and regularly produce and publish quality scientific reports.

47 Instituting a tax for research and development purposes (or allocating a portion of the TPE to R&D) with rebates for companies undertaking R&D projects in the fields of ecological transition. This tax could fund the FOCTEE (see measure no. 9) and be used to finance R&D activities and potentially the panel of experts, with its creation requiring close coordination with the Ministry of Finance.

48 Launching a program to upgrade university curricula in environmental sciences and sustainable development, including human, political, economic, and social sciences, in collaboration with the Ministry of Higher Education.

49 Designing and implementing a national program for professional certification training in green jobs, through close collaboration between the Ministry of Environment (CITET) and the Ministry of Employment and Vocational Training, aimed not only at training trainers but also at creating new professions and a specialized workforce.

50 Renovating and modernizing environmental and ecological education and pedagogy at the school and preschool levels, through close collaboration between the Ministry of Environment and the Ministry of Education, involving the revision of school programs and textbooks, as well as continuous and periodic teacher training.

51 Providing financial and fiscal incentives for the production of ecological content and specialized media (TV, radio, social networks) to develop media content promoting the NSET.

52 Developing and disseminating a national platform for sustainable know-how and best practices, aimed at exchanging, networking, and sharing success stories.

53 Designing an inclusive, multi-thematic, and multi-targeted national strategy for awareness, communication, and education on environmental protection and sustainable development in the context of climate change and ecological transition, along with an operational action plan to be deployed annually on a large scale, through audiovisual media, social media, electronic platforms, on-field activities, in collaboration with all ministerial departments, with the aim of widespread dissemination and the establishment of environmental culture from an early age.

Among these eight (8) measures, five (5) were proposed for discussion by working group no. 5 during the National Ecological Transition Conference (ANTE) on June 26, 2023 (measures no. 46, 48, 49, 50, and 53) and are detailed below.

Measure n° 46 :

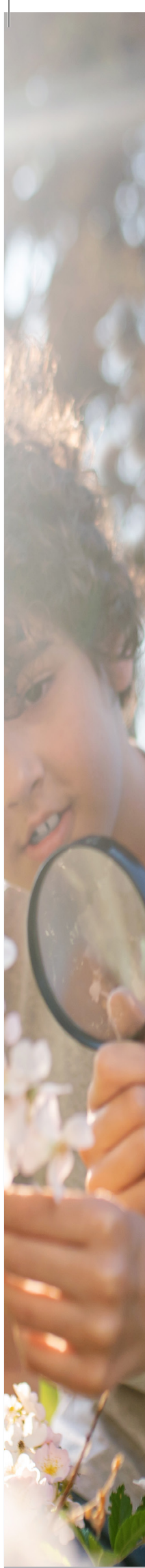
Establish a permanent and transdisciplinary panel of experts for the study of climate, biodiversity, and land degradation.

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal</p> <p>Establishing a permanent and transdisciplinary panel of experts for the study of climate, biodiversity, and land degradation, connected to specialized international networks (IPCC, IPBES), and the Permanent Secretariats of international conventions.</p>			<p>Planned activity: Producing reliable national-scale data should enable the availability of precise indicators and strengthen Tunisia's position in international negotiation groups for universal conventions. This should allow for:</p> <ul style="list-style-type: none"> - Predicting all climate events in a timely manner and making necessary preparations to manage them. - Ensuring better territorial planning.
<p>1</p> <p>Identification of the thematic areas and disciplines that should be represented on the panel: climate change, biodiversity, land degradation.</p>	<p>Ministry of Environment and Ministry of Higher Education and Scientific Research, with the support of the Office of the Prime Minister and technical and financial partners.</p>	<p>2023/35/50</p>	<ul style="list-style-type: none"> - Designing development programs and projects more effectively. - Ensuring food security and the well-being of citizens. <p>Understanding biodiversity and soil resources, as well as genetic heritage, aims to ensure the proper management and rational use of resources and food self-sufficiency.</p>
<p>2</p> <p>Establishment of the operating procedures for the panel.</p>			<p>The panel to be established should include academics, researchers, independent experts, and representatives from the administration.</p>
<p>3</p> <p>Designation of panel members</p>			<p>It is important to consider funding for the panel's activities, as it is possible to mobilize funds within the framework of international mechanisms.</p>

Measures n° 48 and 49:

Launch a program to upgrade university curricula in environmental sciences and sustainable development, and establish a national program for certified professional training in green jobs.

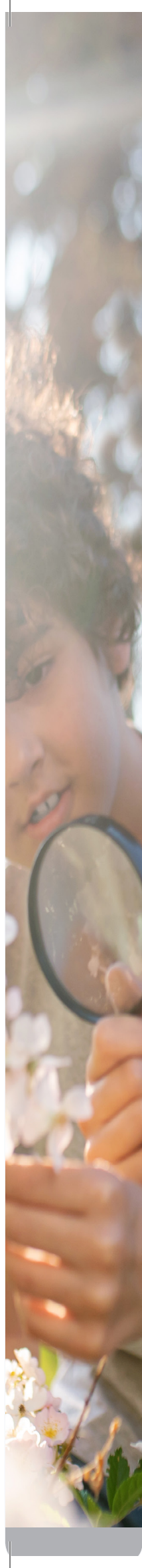
Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Principal</p> <p>Launch a program to upgrade university curricula in environmental sciences and techniques and sustainable development</p>			<p>Planned activities: Organization of regular meetings (1 to 2 times/year) between academics, researchers, administration, private sector and national and international experts to discuss new developments in the fields of the environment, sustainable development and ecological transition and energy.</p> <p>Creation of new green professions, institutionalization and referencing: energy manager, waste management manager, eco-advisor manager, wastewater treatment plant (STEP) management manager, wastewater treatment manager, QHSE manager, etc.</p> <p>Orientation of university and professional training towards innovative sectors linked to SNTE and with high recruitment capacity.</p>
<p>1</p> <p>Identify green professions in relation to the SNTE and the different sectoral strategies as well as the needs of the public and private sectors</p>	<p>Ministry of the environment (CITET-ANGED, ANPE), Ministry responsible for local affairs (interior), CFAD, FNCT PTF</p>	<p>2024-2026</p>	<p>Planned activities: Updating the nomenclature of official standards by integrating new sections relating to environmental professions.</p> <p>Comprehensive reform of the integration of green professions in all sectors, municipalities and employment in general.</p> <p>Creation of remuneration scales corresponding to the list of professions created in order to introduce them officially into the employment sector</p>
<p>2</p> <p>Establish a national certified professional training program in green professions</p>	<p>Ministry of the environment (CITET), Ministry of professional training and employment</p>	<p>2019-2023</p>	<p>Planned activities: Construction of training courses for green professions</p> <p>Development of programs and certifying training cycles at the level of professional training centers</p> <p>Support for the creation of green job opportunities</p>
<p>3</p> <p>Deploy specific training cycles</p>		<p>2019-2024</p>	<p>Current activity: Execution of the training project for municipal eco-advisors managed by CITET in partnership with the PTF (WBI- Eco-Advisory Institute of Namur- GIZ), ANGED, ANPE, CFAD, the Ministry of the Interior (Directorate of Local Affairs) and the National Federation of Municipalities of Tunisia (FNCT).</p> <p>Organization of training programs specific to certain green professions demanded by the job market</p>



4	<p>Encourage the creation of green and eco-innovative start-ups</p>	<p>Ministry of the Environment (CITET)</p>	<p>2023/35/50</p>	<p>Ongoing activities</p> <p>Implementation of the project to support the creation of sustainable and circular businesses in the regions, led by CITET, with a view to stimulating the creation of eco-innovative businesses at the local level in Tunisia, through the identification of 6 regions of the country with the greatest need to improve capacities to support the creation of these businesses (Béja, Gabès, Gafsa, Jendouba, Médenine and Tataouine), the training of 80 specialists to support the creation of green businesses and circulars in the selected regions, the mobilization of regional actors for membership in the National Partnership to Support Switchers in Tunisia (PNS), the support of 120 entrepreneurs in the development of their sustainable business models, the incubation of 6 circular businesses, support for access to financing and, ultimately, membership of the circular businesses created in the community of sustainable businesses in the Mediterranean.</p> <p>Continuation of the STAND Up project! supervised by CITET, as part of the Sustainable Textile Initiative for networking and development of circular economy businesses in the Mediterranean (https://www.enicbcmcd.eu/fr/projets/stand-up) with a view to promoting circular economy businesses in a scalable, replicable and inclusive way in the Mediterranean by developing an ecosystem of business support, innovation and technology transfer leading to the creation of sustainable jobs, particularly in this which concerns young people and women, through the training and support of 40 young people in the creation of green business models, the incubation of 4 eco-entrepreneurs with a view to the design of green business plans, support of 10 eco-entrepreneurs in the development of their investments, the training of 4 eco-entrepreneurs in access to markets, the development and operation of an open innovation platform and the development of 3 national policy documents on sustainable textiles and clothing.</p> <p>Execution of the project to promote sustainable entrepreneurship in the blue economy sector, coordinated by CITET, through the identification of opportunities and stakeholders and the development of innovative business models aimed at the greening of the blue economy, incubation, technical support for eco-innovation and access to financing for circular start-ups in the blue economy sectors.</p> <p>Forum on Sustainable Entrepreneurship in the Blue Economy</p> <p>The launch of component 3 of the Environmental Action Support Program in Tunisia: Greenov'i managed by CITET, with a view to improving the sustainability of the Tunisian economy and initiating its ecological transition through changing the behavior of consumers and producers, thanks to support for the emergence and creation of green goods and services companies that integrate social and gender justice and support for the ecological transition of companies towards modes of sober, fair and sustainable production (support for artisanal clusters, Challenge for a just transition project, etc.)</p>
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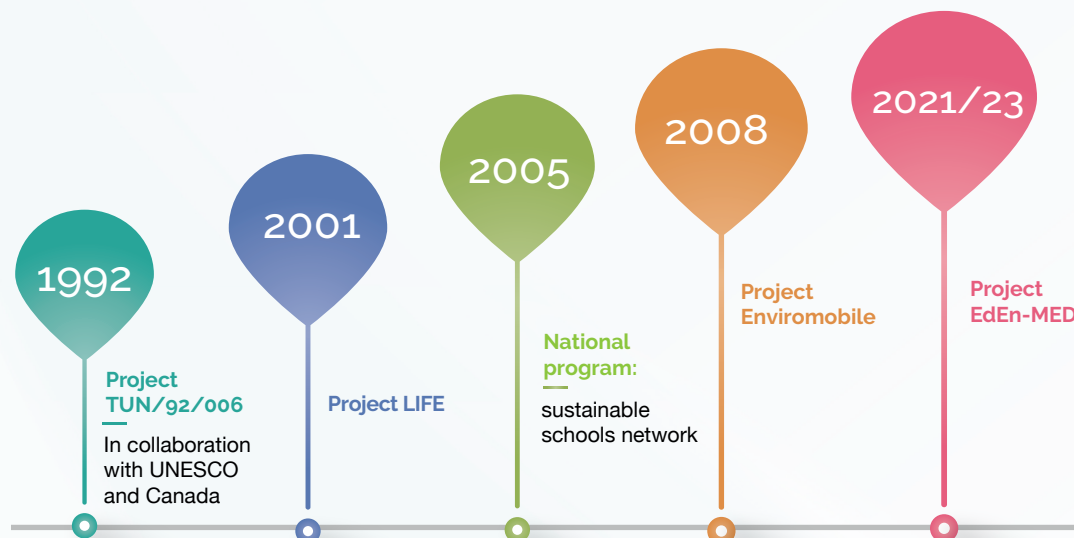
Renovate and modernize primary and preschool education and pedagogy in the fields of environment and ecology.

Objectives	Actors	Phase	Activités réalisées, en cours et projetées
<p>Renovate and modernize school and preschool teaching and pedagogy in terms of the environment, sustainable development and ecological transition</p> <p>Principal</p>	<p>Ministry of Education Ministry of Environment Ministry of Women, Children, Family, and the Elderly ANPE CIFIP PTF (Technical and Financial Partners)</p>	<p>2023/35/50</p>	<p>Ongoing activities: Continuation and strengthening of existing environmental and sustainable development education programs, which are part of the Global Action Program on Education for Sustainable Development (2005-2014 - UN/UNESCO) , the Global Action Program for Education for Sustainable Development (beyond 2015 - UN/UNESCO) and the Mediterranean Strategy for Education for Sustainable Development and its action plan for 2030</p> <p>- Since 2005: progressive establishment of a Network of sustainable schools, the number of which today (2023) is 412 out of 6,130 public schools (4,590 primary schools and 1,540 middle and high schools), including in particular , in each of the schools registered in the program, the creation of an environmental education club, equipped with audio-visual and computer equipment; the creation of an environmental park, comprising around 190 varieties of plants; the production of environmental education educational materials and tools; the organization of training cycles for the benefit of the leaders of the aforementioned clubs; the introduction of renewable energies (hybrid systems: photovoltaic-wind) in 10 educational establishments; the installation of a selective sorting and waste recovery system; the training of trainers (educational inspectors) and the production of an educational manual intended for trainers</p>
<p>Identify the themes to be integrated</p> <p>1</p>			



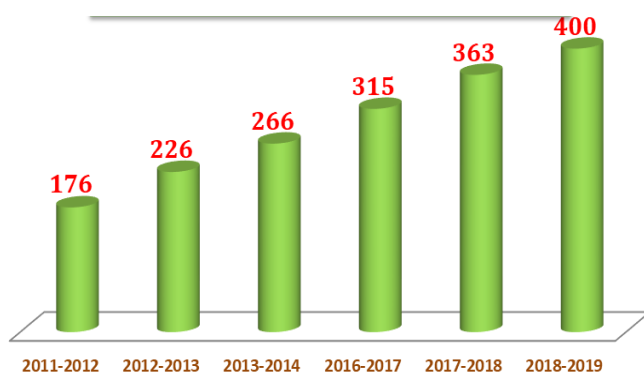
2	Review school curricula and formal textbooks		<p>- Since 2008: organization of regular visits to all schools in the country, thanks to an innovative education tool, in the form of a bus called Enviromobile equipped with educational equipment, traveling throughout Tunisia, including to remote places with a view to the widespread dissemination of environmental culture, knowing that to date (2023) the Enviromobile bus has visited more than 500 schools and raised environmental awareness among more than 20,000 students, signed agreements with NGO, designed an information platform, supervised training sessions in environmental education for the benefit of facilitators of children's clubs and youth centers, educators and directors of primary schools (e.g. Manuel intended for inspectors, organized environmental competitions in educational establishments and national competitions for the best environmental photos, developed educational tools and documents for environmental education and strengthened educational institutions with educational documents and teaching tools (small books, posters, CD Rom , leaflets, etc.).</p> <p>Planned activities: In order to complete this process, it is proposed to create a multidisciplinary committee to review formal and informal textbooks and programs for preschool, primary and secondary education and to develop environmental and sustainable development education towards a common environmental culture widely shared. Supporting measures are planned, such as strengthening prevention through behavior modification and training eco-citizens aware of environmental and sustainable development issues (e.g. organizing a summer school each year intended for primary and secondary school teachers, the number and duration of which could be fixed by mutual agreement between the Ministry of National Education and the Ministry of the Environment).</p> <p>The Environmental Education for a Sustainable Mediterranean program (EDEN-MED, 2021-2023), financed by the European Neighborhood Instrument (ENI) and bringing together public education, higher education and environmental protection organizations Tunisian and Sicilian environment could lay down the founding principles of revising the teaching methods of subjects linked to environmental protection, sustainable development and ecological transition on new bases.</p>
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Genesis of education for environmental protection and sustainable development in Tunisia



More than thirty years of environmental education for nearly three generations of Tunisians

Evolution of the sustainable schools network



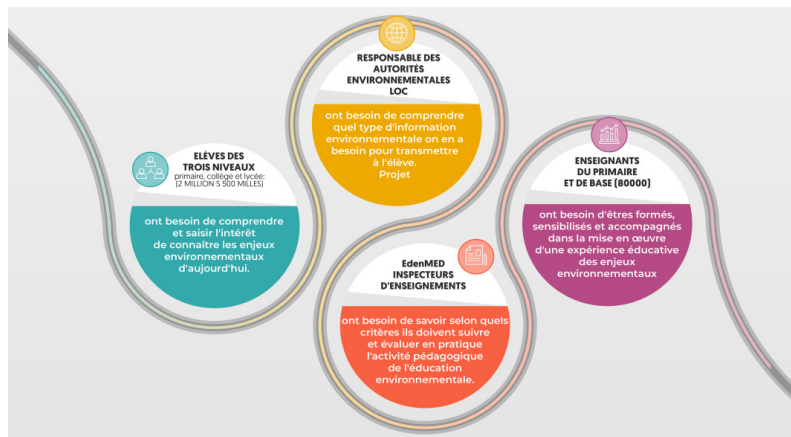
https://www.environnement.gov.tn/fileadmin/Bibliotheque/Developpement_durable/Guide_des_formateurs_EDD_fr_ar.pdf

Autobus Enviromobile : Learning through Action

<https://anpe.nat.tn/Fr/upload/1479199683.pdf>



EdEn-MED Environmental Education for a Sustainable Mediterranean



<https://edenmed.tn/?fbclid=IwAR3epgkBlymgzk6dXDHWW7qehuCyxIfi4Kp4cJwPX-HMGbuMk4Em9TLsDjU>

Approche innovante d'EdEn-MED



<https://www.facebook.com/edenMed.tn.it>

Measure n° 53 :

Develop a national strategy for raising awareness, communication, and education on environmental protection, sustainable development, and ecological transition.

Principal	Objectives	Actors	Phase	Activités réalisées, en cours et projetées
1	<p>Design a national strategy for environmental awareness, communication, and education.</p> <p>Prioritize targeting children.</p>	<p>All Ministries Public sector Private sector 24 governorates 350 municipalities NGOs Civil society Technical and financial partners</p>	<p>2023/2030</p>	<p>Current activity: An inclusive, multi-thematic and multi-target long-term communication strategy (2023-2030) (children, young people, adults, women, minorities, etc.) is being designed.</p> <p>Communication and targeted awareness raising must make it possible to disseminate as widely as possible and anchor environmental culture from a very young age (kindergartens, schools, high schools, sports clubs, etc.).</p>
2	<p>Provide training for employees and officials of public administrations.</p>			<p>Planned activity: It is planned to deploy the awareness and communication strategy on a large scale annually, via audio-visual media, social media, electronic platforms, activities on the ground, all of which is based on a new avatar of the environmental mascot (Labib) transformed into a “superhero” by children during a drawing competition organized on March 25, 2022 at Ennahli Park: SuperLabib coming to the aid of the endangered environment.</p>
3	<p>Include a communication plan for environmental crisis situations</p>			<p>Planned activity: Training programs for administrative executives and agents in awareness, communication and environmental education are to be designed and deployed regularly.</p>

On June 26, 2023, during the National Conference on Ecological Transition, five (5) measures out of eight (46, 48, 49, 50, and 53) were proposed for consideration by the participants as immediate priority actions to implement Axis 5 of the National Sustainable Transition Strategy (NSET). These measures were discussed in Working Group 5, chaired by Mr. Mohamed-Ali BOUGHDIRI, Minister of Education. Mr. BOUGHDIRI reiterated the objectives of the NSET and emphasized the significance of the education sector in its implementation. Subsequently, the priority measures related to the development of culture, science, and knowledge for ecological transition (measures #46, 48, 49, 50, and 53) were presented.

The discussions led to the following recommendations:

- Implement an exclusive strategic program for families and preschool children to bring about behavior change at its source.
- Engage child parliamentarians to enhance awareness among children.
- In terms of legislation, participants emphasized the urgency of enforcing environmental protection laws by updating them according to the current situation and threats. They also stressed the need to enact a law requiring media outlets, at least those in the public sector, to promote and provide free awareness campaigns.
- Promote all forms of cultural content related to the environment, both traditional and digital.
- Establish a program that brings together all sectors to focus on environmental themes, aiming to organize regional, national, and international cyclical events such as conferences, festivals, and fairs.
- Researchers present at the conference called for more involvement, stating their willingness to volunteer in the development of strategic programs. They pointed out that many scientific research efforts remain unknown, and it would be ethically preferable to house them on a national platform. They also raised concerns about institutional barriers hindering effective solutions to ecological problems and advocated for greater collaboration between scientists to guide strategic choices.
- Actively involve civil society and the private sector on a win-win basis, and increase partnerships in this context.
- Due to the limited availability of information about ecological projects, participants suggested the creation of a website or platform to address this issue.
- Despite numerous strategic projects, local and foreign funders over the decades, ecological problems have not been fundamentally and sustainably resolved, nor has a culture of environmental respect been instilled among Tunisians. It was suggested to adopt a new approach before signing agreements to better align and consolidate efforts.

- Include traditional industries in professional training aimed at developing green jobs.
- Establish a coordination cell to provide technical support for close collaboration and monitoring of future actions with the Ministry of Education.
- Ensure the adoption of measures and actions related to the Ministry of Education by the Supreme Council of Education, the institution responsible for strategic decisions according to the Minister of Education.
- Create a national guidance, monitoring, and coordination cell and launch a platform for meeting deadlines.
- The brainstorming teams that participated in this event could form permanent reflection committees by involving other experts and resources in the regions.





CONCLUSIVE ELEMENTS

In order to implement the **National Ecological Transition Strategy (NETS)**, it is essential to plan and design activities that contribute to it, along with the measures, targets, and actors responsible for its on-ground realization, based on a short, medium, and long-term schedule.

In fact, the NSET includes both quantitative and qualitative targets to be achieved in the long term. Most of these targets contribute to achieving the Sustainable Development Goals (SDGs) by 2030. A set of measures to be implemented by the government has been proposed to achieve these targets. These policy measures and targets, categorized by the field of action, have been summarized in this document.

For each axis, specific measures have been proposed and validated, accompanied by indicators and targets to be achieved on specific dates:

- 2025, corresponding to the horizon of the 2023-2025 three-year plan.
- 2035, aligning with the Tunisia 2035 vision.
- 2050, corresponding to certain global commitments such as carbon neutrality.

In addition to the targets related to the five fields of action, cross-cutting targets have been identified:

- Environmental Performance Index (EPI)¹
- Progress score in achieving the 17 SDGs.
- Human Development Index Adjusted for Planetary Pressures (HDIAP)².
- Biocapacity reserve³.
- Cost of Environmental Degradation⁴.

These cross-cutting targets reflect the implementation of all recommended programs and measures. They require rigorous analysis and regular monitoring.

1 The Environmental Performance Index (EPI) is a combined index composed of 40 performance indicators in 11 categories of problems classified under three main themes/objectives: the vitality of ecosystems, health and climate policies. The EPI ranks 180 countries based on their performance in these areas. It makes it possible to measure on a national scale the degree of proximity of countries in relation to the objectives established in terms of environmental policy. Source: WOLF, M. J. EMERSON, J. W., ESTY, D. C. de SHERBININ, A. WENDLING, Z. A., et al. 2022 Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy. epi.yale.edu, (2022),

2 HDIAP measures the level of human development adjusted by carbon dioxide emissions per capita (based on production) and material footprint per capita to account for excessive human pressure on the planet. It must be considered, according to the UNDP, as an incentive for transformation. Source: United Nations Development Program – UNDP. Human Development Report 2020. The next frontier: Human development and the Anthropocene

3 The ecological footprint is calculated by following the biologically productive area required to meet all concurrent demands of individuals, a country, or a given territory. These demands include space for food cultivation (continental and marine), fiber production, wood regeneration, absorption of carbon dioxide emissions from the combustion of fossil fuels, and the development of built infrastructure. Biocapacity is measured by calculating the amount of biologically productive land and seas available to provide the resources that a population consumes and to absorb its waste, taking into account current technology and management practices. To make biocapacity comparable across space and time, surfaces are adjusted proportionally to their biological productivity. These adjusted surfaces are expressed in global hectares (gha).

4 **The Cost of Environmental Degradation (CED)** measures all economic costs linked to the loss, exhaustion or degradation of natural resources (water, soil, forest ecosystems, etc.) resulting from human activities (withdrawal and pollutant discharges). The CDE calculation methodology was developed by the World Bank in 2004, with a first estimate for the cases of Tunisia and Lebanon. See: <https://documents1.worldbank.org/curated/en/445831468760782622/pdf/299020Cost0Env1isia0EDP19701public1.pdf>

To attain these goals, it is imperative that the proposed measures and targets undergo inter-ministerial consultation and dialogue with stakeholders from the private sector and civil society. The initial step in this direction was exemplified by the organization of the inaugural National Conference on Ecological Transition on June 26, 2023, under the esteemed patronage of the Prime Minister. The event saw the participation of 6 ministers and over 130 representatives from various ministries, public institutions, and national organizations.

Simultaneously, on the same day (June 26, 2023), the Minister of Environment, with Mr. Mounir MAJDOUB, an expert representing the UNDP, serving as the general rapporteur, chaired a synthesis and presentation session of the National Conference on Ecological Transition proceedings. In this session, workshop rapporteurs presented the outcomes of the discussions and recommendations made by participants.

Mr. Mounir MAJDOUB delivered a comprehensive synthesis of the National Conference on Ecological Transition proceedings. He commended the organization of the event, underscoring its significance with the notable presence of six government members and the UNDP Resident Representative in Tunis.

He emphasized that the aim of the conference, as defined by the Prime Minister, was to share the Vision and elements of the NSET with stakeholders to inform the immediate implementation roadmap of the strategy. He also underscored that the goals of the National Conference on Ecological Transition had been achieved thanks to the participation and commitment of all stakeholders. He expressed the relevance of the remarks and recommendations made by the five working groups and the Ministry of Environment's intention to consider them in the NSET implementation process.

A debate on the results of the working groups' discussions allowed participants who had not been part of other workshop discussions to provide their comments and recommendations.

The general rapporteur summarized the recommendations of the National Conference on Ecological Transition (ANTE) as follows:

- » The roadmap for NSET implementation must be realistic, feasible, and accompanied by monitoring and impact indicators in the short, medium, and long term.
- » There is a need to intensify efforts in education, training, development, and knowledge dissemination to influence the attitudes of social actors.
- » The next step after ANTE is the preparation of a detailed implementation plan and the establishment of governance and coordination structures and tools.
- » It is crucial to strengthen, valorize, and capitalize on the successful results of scientific and technical research.
- » There is a need for an annual review to assess progress toward ecological transition.

Among the elements to prioritize for the success of NSET, it should be noted that strengthening the digitalization of the entire sector's functioning is necessary to enhance its performance in delivering the 53 measures of the strategy.

In fact, digitalization is a cross-cutting process that affects all NSET axes and aims for the following objectives:

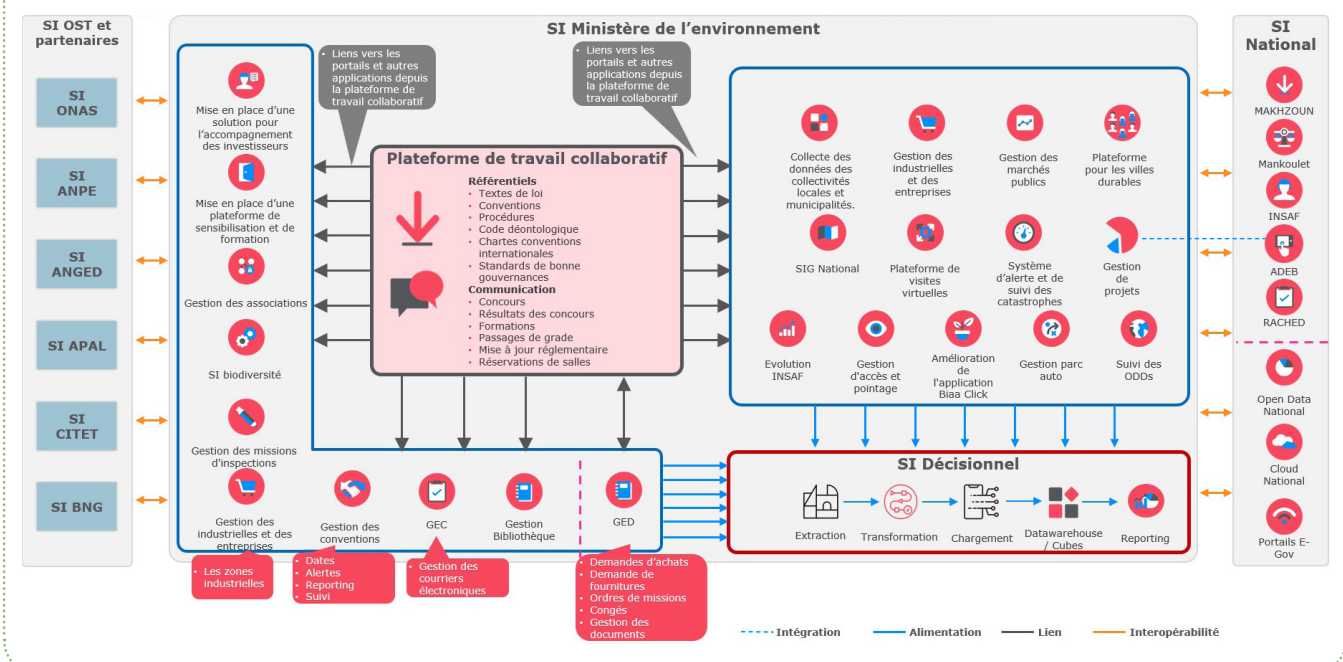
- Improve work methods.
- Enhance the flow of information between services and decision-making structures.
- Improve the quality of services provided.
- Enhance governance.

As a result, the establishment of information systems is necessary to monitor the 53 NSET measures. For example, this includes strengthening coastal adaptation and resilience to climate change through the Coastal Climate Change Adaptation Information and Decision Support System (SIAD) (measure 15.8), establishing a national early warning system as part of the National Disaster Risk Reduction Strategy and its action plan by 2030 (measures 17 and 18), and designing and deploying a National Environmental Awareness, Communication, and Education Strategy (measure n° 53).







Cross-cutting support measures common to the 5 axes and 53 measures of the SNTE: digitalization of the sectors called upon to achieve the NSET













Objectives	Actors	Phase	Completed, ongoing, and projected activities
<p>Principal</p> <p>Transform the internal functioning of the Ministry of the Environment and its affiliated organisations through the conception, introduction and use of new information and communication technologies in order to provide agents and decision-makers with a modernized work environment</p>	Ministry of Environment	2023/2025	<ul style="list-style-type: none"> • Coordination with all partners and alignment with common principles and rules. • Ensuring the implementation of NSET guidelines and the unified adoption of best practices. • Mechanisms for monitoring and tracking ministry activities. • Tools for evaluating and analyzing data to improve ministry management. • Adoption of all available communication channels for opening and sharing environmental data with administration users. • Placing the user at the center of administrative concerns through quality services. • Digitization of internal processes for simplification and acceleration. • Providing secure and efficient access to information. • Offering an integrated information system to access reliable and relevant data.
1 Good governance, steering and control			
2 Branding of the sector			
3 Support for Sector Missions			
4 Strengthening user confidence			













**Functional target of the SI ME
Interaction between the SI ME and other systems**

















Electronic links












	Documents, guides, plans, programs, reports, strategies, systems	Liens électroniques	QR-Code
1	Standard specifications for transition to sustainable city status (2020)	Download (specifications) Download (Guide)	 
2	Nationally Determined Contribution (NDC) (2021-2023)		
3	Guide for the development of local agendas 21	Download	
4	Guide for environmental education trainers	Download	
5	Guide to the best initiatives for promoting and creating green and decent jobs in Tunisia (2017).	Download	
6	Investor's Guide on Waste Management and Valorization (2017).	Download	
7	HQE guide to sustainable construction (2018)	Download	
8	Operational Guide for the valorization of demolition and construction waste in road engineering (2023).	Download	
9	Guide to sustainable transport in Tunisia (OTEDD, 2014)	Download	
10	Eco-Tourism Guide (2017)	Download	













11	Sustainable textile initiative for the networking and development of circular economy companies in the Mediterranean – (Stand-Up!) (CITET)	Download	
12	Operational manual for construction and demolition waste management procedures (2021)	Download	
13	Pedagogical Manual for Environmental Education in Tunisia (Eden-Med Project, ANPE, 2023)	Download	
14	Tunisian Manual of national control procedures for dumping at Sea (2023) (ANPE).	Download	
15	National action plan for sustainable consumption and production (PANCPD) (2016)	Download	
16	National action plan to combat desertification (PAN-LCCD) (2018-2030)	Download	
17	National implementation plan for the regional strategy for the prevention and control of marine pollution from ships (2022-2031)	Download	
18	Composting generalization plan (ANGED)	Download	 
19	Sustainable cities platform	Download	
20	National environmental health action program	Download	
21	Environmental education program for a sustainable Mediterranean (EDEN-MED) (2021-2023)	Download	













22	Lake Bizerte Pollution Abatement Program (ECOPACT)	Download	
23	Mechanized beach cleaning program (APAL)	Download	
24	Contribution program to Mediterranean depollution (DEPOLMED) (ONAS)	Download	
25	Promotion program for eco-entrepreneurship and Tunisia's transition to a circular economy (SWITCHMED) (CITET)	Download	
26	Program for the protection of the Tunisian coastline against coastal erosion (APAL).	Download	
27	Beach occupation plan program (APAL)	Download	
28	Coastal esplanades program (APAL)	Download	
29	Coastal sebkhas development program (APAL)	Download	
30	Program for the creation and management of marine coastal protected areas (APAL)	Download	
31	Tunisian coastal protection program (PPLT) (2013-2028) (APAL)	Download	
32	Integrated pollution control program for the watershed of the Oued Medjerda (2020)	Download	
33	Programme littoral sans plastique (LISP) Plastic-free coastal program (LISP)	Download	

34	Three-year capacity building program in waste management for African cities (2022-2024) – Ministry of the Environment – CITET - JICA.	Download	 
35	National communication strategy for sustainable development	Download	
36	Project to support water sector reforms in Tunisia: assisting local stakeholders for an integrated approach to sustainable water resource management in the industrial sector (ARESET) (CITET)	Download	
37	Technical assistance and capacity building project for companies in the automotive and aeronautics sector in carbon footprint assessment (CFP) and corporate social and environmental responsibility (CSR) (CITET)	Download	  
38	Technical assistance project to support the implementation of a sustainable public purchasing operation in Tunisia (WES) (CITET)	Download	
39	TouMaLi : Preventing Tourism Marine Litter : an innovative waste management project in tourist areas (CITET)	Download	 
40	Project for the cultivation of quality building (CUBATI)	Download	

41	Innovative business practices and economic models in the textile value chain (INTEX) (CITET)	Download	 
42	Project for the promotion of sustainable entrepreneurship in the blue economy sector	Download	
43	Climate protection project through circular economy PROTECT (ANGED)	Download	
44	Waste reduction project to boost economic growth : cleaning innovative Mediterranean actions (CLIMA) (CITET)	Download	 
45	Project for the ecologic and social requalification of territories through the revival of youth entrepreneurship in Tunisia (RESTART) (CITET)	Download	
46	Project for the sustainable wastewater treatment and reuse in the Mediterranean region (AQUACYCLE) (CITET)	Download	 
47	Household waste valorization project (REUSEMED) (ANGED)	Download	
48	Project for improving Socio-Ecological resilience in coastal areas of the Mediterranean (ENSERES) (beneficiaries: Port of Sfax, Gabès Region)	Download	
49	Project together for integrated and sustainable waste management (EGIDD) (2018-2024) (ANGED)	Download	
50	Eco-advisor training pilot program (CITET)	Download	

51	Synthesis report of the 6 th assessment cycle of the Intergovernmental Panel of Climate Change (IPCC, 2023)	Download	
52	Report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2022)	Download	
53	Report on sustainable development indicators (2023) (OTEDD).	Download	
54	Report on the State of the Environment (2019) (OTEDD)	Download	
55	Network of municipal eco-advisors (CITET)	Download	
56	Sustainable schools network (DGDD-ME)	Download	
57	Megara network of sustainable cities (sharing and exchanging best practices in green, blue and circular economy among more than 120 partner municipalities and 85 experts)	Download	
58	Technological network for the environmental management of fruit and vegetable canning (CITET)	Download	
59	Technological network for the environmental management of organic waste through composting (CITET) <hr/> <u>Haut du formulaire</u>	Download	
60	Technological network for the environmental management of eco-friendly buildings (CITET)	Download	
61	Technological network for environmental management of used tires (CITET).	Download	

62	Technological Network of Cement Plants for the Environment (RTCE)	Download	
63	Blue economy strategy (2023)	Download	
64	Green hydrogen strategy in Tunisia ((Ministry of Industry)	Download	
65	Soft mobility and sustainable transportation strategy by 2035 (Ministry of Transport)	Download	
66	Sustainable and alternative tourism strategy by 2035 (Ministry of Tourism)	Download	
67	Energy transition strategy by 2035 (Ministry of Industry)	Download	
68	Water strategy 2050 (Ministry of Agriculture)	Download	
69	National biodiversity protection strategy and action plan (SPAN-PB) (2018-2030)	Download	
70	Industrial and innovation strategy by 2035 (Ministry of Industry)	Download	
71	National Sustainable Development Strategy (NSDS 2014-2020)	Download	
72	National Strategy for Carbon-Neutral and Climate-Resilient Development (SNDNC-RCC) by 2050	Download	
73	National strategy for global and sectoral circular waste management (SNGC-GSD) (2023/35/50)	Download	

74	National strategy for integrated and sustainable management of household and similar waste (SNGID-DMA) (2020-2035)	Download	
75	National strategy for disaster risk reduction (2018-2030)	Download	
76	National strategy for the reduction of ozone-depleting substances (ANPE)	Download	
77	National strategy for social and environmental responsibility (SNRSE) and National and CSR action plan (2018)	Download	
78	National strategy for integrated coastal zone management (2020) (APAL)	Download	
79	Used tire take-back system Eco-pneus (ANGED)	Download	
80	National system for identification, assessment and validation of sustainable technologies (CITET)	Download	
81	Public take-back and management system for packaging bags and used packaging (EcoLef) (ANGED)	Download	
82	Public system for collection of waste electrical and electronic equipment (ANGED)	Download	
83	Public system for collection of cooking oils (ANGED).	Download	
84	Public system for collection of used lubricating oils and oil filters (ECOZIT) (ANGED)	Download	
85	Public system for collection and management of used batteries and accumulators eco-batteries (ANGED)	Download	
86	Public system for the management of end-of-life vehicles (ELV) (ANGED)	Download	





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