



SCP National Action Plan – SUMMARY



NATIONAL ACTION PLAN FOR SUSTAINABLE CONSUMPTION AND PRODUCTION (SCP) IN EGYPT | 2015

EXECUTIVE SUMMARY



UNEP



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is funded by the
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SwitchMed Programme is implemented by the United Nations Industrial Development Organisation (UNIDO) and the United Nations Environment Programme (UNEP), through the Mediterranean Action Plan (MAP) and its Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) and the Division of Technology, Industry and Economics (DTIE). For details on the SwitchMed Programme please contact btuncer@scprac.org



**Regional Activity Centre
for Sustainable Consumption
and Production**

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FOREWORD

Envisioning a more sustainable Egypt is no longer a dream nor an unrealistic endeavor. This realization in itself is a great achievement to behold, given that state officials at all levels spearheaded by the president, have made it very clear that sustainable development is a key objective for Egypt. It is now perceived as a strategic instrumental policy framework for a more prosperous future Egypt.

The panacea of all public and official lobbying efforts for adopting a national agenda for sustainable development, have resulted in a widely declared endorsement during the proceedings of the 'Egypt the Future' the Egypt Economic Development Conference (EEDC). The conference convened in Sharm El-Sheikh on the 13-15th March 2015, is a key milestone of the government's medium-term economic development plan. Thus reflecting a national consensus designed to overcome current economic challenges and bring prosperity and improved social services to the people of Egypt.

At this international gathering attended by several global leaders and the Chief Executive Officers of major international companies, Egypt announced its launching of its Sustainable Development strategy for 2030. The new vision aims to strategically position Egypt among the world's emerging economies. The main objective of the strategy is to integrate sustainable development principles across sectors.

The process of development of the strategy involved the participation of different ministries and stakeholders. The Ministry of Environment played a leading role in collaboration with the Ministry of Planning in this context of a strong partnership with the Ministry of Planning.

Against this backdrop, it is clear that the national policy development process has been set forth to endorse more actionable activities to both expedite a transition towards green economy, and achieve sustainable development. This is particularly important since the global development community is dynamically discussing 'Post 2015 Development Agenda' and the sustainable development goals (SDGs) to replace last decade's millennium development goals (MDGs); yet another important consideration underlying Egypt's new sustainability outlook.

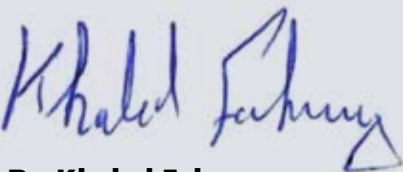
In this respect, Egypt's Ministry of Environment has been working in recent years with the support of international partners, especially the United Nations Environment Programme (UNEP) to pave the way for mainstreaming green economy and sustainable consumption and production related policies as tools to achieve sustainable development. Towards this end a 'Green Economy Scoping Study' for Egypt was developed and later launched in collaboration with the Center for Environment and Development for the Arab Region and Europe (CEDARE) and UNEP.

This publication at hand addressing 'Sustainable Consumption and Production National Action Plan for Egypt' is considered another significant stepping stone contributing to a continuum of knowledge accumulation for nationally integrating sustainability in Egypt's key economic sectors. The national action plan addresses four priority sectors including: Energy, Agriculture, Municipal Solid Waste and Water.

More importantly this publication is a blueprint for actionable activities that could be translated into operational projects accompanied with policy interventions required for the actual implementation of Egypt's sustainable development goals and economic priorities. This national action plan when implemented, will mainstream the newly introduced concepts and tools of sustainable consumption and production into Egypt's overall sustainable development policy framework and gradually alter unsustainable consumption and production patterns by introducing policies and projects that could provide better informed decision making processes and success stories that can be replicated and up-scaled on the national level in different geographic regions.

It is therefore my pleasure to thank on behalf of the Ministry of Environment our partners at the European Commission for funding the project and our partners at UNEP and CEDARE for leading and facilitating the development process of the action plan with the support of the ministry's team and focal points. I would like to underscore the importance of the consultation process and the participatory approach that has been endorsed to develop the national action plan and to ensure its realistic reflection of Egypt's actual socio-economic and environmental needs and aspirations

This national action plan is the beginning of a long journey ahead, towards having future generations of Egyptians living in sustainable communities and cities.



Dr. Khaled Fahmy

Minister of Environment

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The National Sustainable Consumption and Production Action Plan for Egypt was commissioned by the United Nations Environment Programme (UNEP). It was prepared and coordinated by the Centre for Environment and Development for the Arab Region and Europe (CEDARE) on behalf of the Egyptian Environmental Affairs Agency (EEAA), and Ministry of Environment (MoE).

The development process leading to the drafting of the action plan and including the facilitation of the stakeholder consultation has been led by the Sustainable Growth Programme (SGP), CEDARE.

Special thanks are due to **Dr. Hussein M. Abaza**, lead author, **Ms. Sina Hbous**, principal investigator and Economist and **Mr. Ramy Lotfy Hanna**, sustainability consultant and senior research specialist for their substantive contribution and valuable input in addition to the guidance they have provided during the course of preparing the action plan.

The overall development process for the action plan has been coordinated by **Dr. Hossam Allam**, Regional Programme Manager of SGP.

However, successfully completing the process of developing an action plan would have never been possible without the effort of a well harmonized consorted team that comprises members from different ministries and representatives of different institutions including the Egyptian Ministry of Environment and UNEP.

We are deeply indebted to Mrs. Yasmine Fouad, first assistant to the Minister of Environment, Dr. Mohamed Abdel Monem, advisor to the Minister of Environment and his team members, Mrs. Fatma EL Zaharaa. We would also like to thank Mr. Luc Reuter, the action plan's focal point on behalf of UNEP.

The significant content encompassing proposed policies enablers and projects would not have materialized had it not been for the technical contributions of experts, focal points and participating stakeholders.

With deep gratitude, we wish to thank the four-sector experts that have successfully facilitated their respective working groups and that have enriched the final action plan through their technical expertise. These include:

Agriculture: H.E. Dr. Ayman Abou Hadid,
Former Minister of Agriculture.

Water: Dr. Khaled Abuzeid, Regional Director of
Water Management Department, CEDARE.

Energy: Dr. Anhar Hegazi, Senior Expert

Waste Management:
Mr. Tawfik Elkheshen, Economic and Financial
Advisor, National Solid Waste Management
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Supervision and coordination

Luc Reuter, SwitchMed Coordinator, UNEP-DTIE

Support

UNEP would further like to thank:

Arab Hoballah	Chief Sustainable Lifestyles Cities and Industry Branch, UNEP-DTIE,
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Charles Arden-Clarke	Head 10YFP Secretariat
Fareed Bushehri	UNEP-Regional Office for West Asia
Yulia Rubleva	UNEP-DTIE



About SwitchMed

The EU funded SwitchMed project is implemented jointly by the project countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine and Tunisia) and the institutional partners UNEP, UNIDO and SCP-RAC. SwitchMed is divided into 3 components addressing different parts of the transition process to Sustainable Consumption and Production (SCP) - SDG12:

- (i) A policy component, built around the Barcelona convention (for the Protection of the Mediterranean Sea and Coastal Regions) and SCP national action plans;
- (ii) Demonstration activities linked both to the policy component and the private sector;
- (iii) Networking function to allow for exchange, joint learning and further scaling up;

UNEP-DTIE is coordinating the national policy component – Reinforcing circular economy in the Mediterranean governance framework and mainstreaming SCP in national policies. Under the national policy component the project countries will develop Sustainable Consumption and Production National Action Plans (SCP-NAP).

The implementation methodology used under the SwitchMed national policy component has been adapted to each countries' specific needs and requests. To assure coherence between ongoing and previous national work, the activities at country level build on already existing work and projects (Green Economy, SCP assessments, sustainable development assessment and strategies, SCP projects, etc). In this process UNEP works with national consultants in the project countries to allow a transfer of knowledge and reinforcement of national capacity. The SCP-NAP methodology assures that a large and diverse group of national stakeholders are involved in the national process (government, civil society, private sector, media, academia, bi- and multilateral partners, UNCTs, etc). Furthermore collaborations with UN institutions and other bi-lateral partners have been established at country level.

Main objectives:

- Leapfrogging to socially inclusive Sustainable Consumption and Production practices preserving the environment;
- Integrating the natural capital and the environment in the core business of Mediterranean companies
- Creating a critical mass of citizens for SCP;

The successful development of eight SCP-NAPs demonstrates that:

- (i) in-country activities have to be nationally owned and nationally driven to be successful;
- (ii) the involvement of a large and diverse group of national stakeholders from the beginning of the planning process is crucial;
- (iii) linkages and synergies have to be established with already existing projects and initiatives and collaboration with other partners should be encouraged and fostered.

Each country has chosen to follow its own path to develop an SCP-NAP and this series of publications clearly shows the diversity of processes as well as outputs. In some countries the SCP-NAPs are based on SCP national assessments, while in other national partners decided to build upon already existing national SCP information and knowledge.

Executive Summary

This document is intended to identify key priority activities and projects needed to support the creation of sustainable communities and cities in Egypt through the promotion of sustainable consumption and production patterns. The identified set of projects constitute the main element of the SCP Action Plan guided by Egypt's Green Economy Strategy and the 2030 Sustainable Development Strategy. This list of projects is the result of an extensive consultation process and is a translation of the principles of Green Economy (GE) and Sustainable Consumption and Production (SCP) in key economic sectors in the form of practical projects on the ground. This project is a continuation of efforts by the Egyptian Ministry of Environment in collaboration with international partners, particularly the United Nations Environment Programme (UNEP) to pave the way for mainstreaming green economy and sustainable consumption and production related policies as tools to achieve sustainable development.

National efforts to make this transition included the preparation in 2013 of the 'Green Economy Scoping Study' for Egypt launched in March 2015 in collaboration with the Center for Environment and Development for the Arab Region and Europe (CEDARE) and UNEP. Building on the diagnosis of the Egypt Green Economy Scoping study, the Sustainable Consumption and Production Action Plan for Egypt is considered another significant milestone contributing to a continuum of knowledge accumulation for nationally integrating sustainability in Egypt's key economic sectors. The national action plan addresses four priority sectors including: Water, Energy, Agriculture, and Municipal Solid Waste.

The strategic objective aims to translate the conceptual framework of green economy (GE) from a broad vision towards sustainable development into operational specific plans and projects. It also explores the inter-linkages and nexus amongst priority sectors and their contribution towards "Sustainable Integrated Communities". The Action Plan builds on recent studies that provided a review of the Egyptian Government's efforts to promote green policies and integrate environmental considerations in some sectors. The Action Plan explores recent updates relevant to GE and SCP in an effort to monitor the current challenges and opportunities that face increasing rates of urbanization in Egypt, triggered by increased rates of population growth and the need to provide housing for the different segments of the population and associated physical and social services.

The presented action plan is the outcome of a participatory consultation process following a multi-stakeholder approach (including government, academia, private sector, civil society and international organizations) to ensure its realistic reflection of Egypt's actual socio-economic and environmental needs and aspirations. The Ministry of Environment led the SCP consultation process with its partners at the European Commission funding the project, along with UNEP and CEDARE facilitating and supporting the development process of the action plan in collaboration with the ministry's

Egypt's Sustainable Consumption and Production Action Plan Process and Rationale

- A Multi-stakeholder consultation process including 92 experts from 4 different sectors including energy, water, agriculture, and waste
- The Action Plan is translated into 6 different programs to implement 28 different projects presented by 13 different government institutions and specialized research centers
- The identified projects are selected on the basis of their relative importance and priority, practicality and the extent to which they support the development of Sustainable Integrated Communities

team and focal points. The action plan was designed, structured and drafted in complete synchronization with the Egyptian Ministry of Environment, to facilitate its validation and endorsement by higher level of public officials and to ensure the ease of its implementation by respective line-ministries.

In designing this national action plan, we have insisted on providing conceptual and operational objectives and frameworks complemented by a set of suggested policy enablers and actionable projects that could translate SCP into concrete projects on the ground. The action plan is also intended to provide solutions for mainstreaming SCP policies nationally that would also facilitate the achievement of the SDGs as new global benchmarks for the implementation of sustainable development; especially SDG 12. This national action plan when implemented, will mainstream sustainable consumption and production concept into Egypt's overall sustainable development policy framework and gradually alter unsustainable consumption and production patterns towards more sustainable ones and highlight success stories that can be replicated and up-scaled at the national level in different geographic regions. Governance commitment and policy coherence are essential elements in this process.

The emphasis in this work has been laid on exploring the inter-linkages between the four priority selected sectors and how addressing the challenges related to each sector can be addressed to promote synergies, complementarities and supportiveness thus contributing towards the development of "Sustainable Integrated Communities" in Egypt. Accordingly, the presented SCP Action Plan for Egypt identified the main elements for each of the four priority sectors;

For the energy sector, the key strategic goal is to ensure sector sustainability by promoting both Energy Efficiency "EE" and the use of Renewable Energy "RE". It is predicted that by 2035, considerable level of energy efficiency can be reached with total potential savings from final energy consumption of about 18% including the following sectors; 23% transport, 18% industry and 16% buildings (residential, commercial and public). In addition, the Combined Renewable Energy Master Plan

"CREMP" finalized in 2015 predicted RE contribution by 2025/2026/ to reach 18% of the total produced electricity, while in 2029/2030/ it will reach 22% including 14% wind, 4% PV, 1% CSP and 3% Hydro.

In order to achieve this key strategic orientation in the energy sector, the strategy is based on the following main objectives:

- Ensuring security of supply, through diversified energy sources
- Ensuring both the technical and financial sustainability of the sector
- Modernizing the system, improving its governance and promoting private sector investment

Regarding the agriculture sector, the key strategic goal is to promote sustainable rural agricultural communities as part of the 1 million-feddan project to drive economic activities and provide jobs and other services for different segments of the population. In order to achieve this key strategic orientation in the agriculture sector, the strategy aims to; introduce solar powered water pumps to replace traditional water pumps, and the use of solar energy to power water desalination stations for agricultural cultivating purposes; the utilization of agricultural waste to produce energy and biofuel; the use of new modern grain storage mills to cut on wastage and promote more sustainable storage practices.

The key strategic goal for the water sector is based on the 2030 national wastewater strategy developed by CEDARE Water Department is to extend wastewater treatment for agricultural purposes. The strategy aims at promoting the efficient and sustainable use of water from all sources, underground, Nile water, rainwater, and treated wastewater. The use of desalinated seawater is also being seriously considered as well as changing the legal codes for desalination and wastewater reuse for agricultural purposes.

As for the municipal solid waste sector, the key strategic goal is to develop an integrated solid waste management system in Egypt. In order to achieve this key strategic objective, the following actions should be undertaken: promote good governance, promote R&D and innovation, support public awareness and community engagement, restructure of certain public institutions and changing

legislations, providing access to finance, and encouraging investments, expand the recycling sector, endorse the concept of polluter pays principle, and adopt the process that promotes the reduction, reuse, recycling, and recovery of waste.

In addition to the demonstration projects in the priority sectors, the national sustainable consumption and production action plan for Egypt will lay special emphasis on the following Priority Actions to be undertaken by the government to facilitate SCP across sectors:

- Create a coordinating mechanism to be attached to the Prime Minister's Office to ensure proper coordination between different sectoral ministries, monitor implementation of strategies and action plans, evaluate outcomes, and introduce corrective actions as appropriate.
- Undertake a review of existing laws and regulations, as well as market incentives and assess their impact on SCP and reformulate and or introduce a package of regulatory reforms supported by incentive measures that promote SCP across sectors.
- Initiate a national process for integrating SCP considerations in sectoral strategies, action plans and programs.
- Institute in law the requirement for government bodies to purchase equipment, supplies and services that are produced in an environmentally sustainable manner.
- Initiate a national process for integrating SCP considerations in sectoral strategies, action plans and programs.

Launch a public awareness campaign using conventional means, including television, radio and newspapers as well as non conventional means such as mobile phones, through mosques and churches, identifying public figures as goodwill ambassadors for SCP to communicate the importance and benefits of adopting an SCP approach for different target groups and from the perspective of each sector.

- Develop a long-term research and development (R&D) agenda to support a transition to a green economy and SCP across sectors.
- Develop a capacity development program to include training courses and on-the-job training to promote SCP in the different sectors.
- Ensure the integration of SCP and green economy concept in the education curricula of the different disciplines, and consider awarding academic degrees in this field.
- Provide a package of incentive measures that promote the engagement of the private sector in investing in projects that support SCP, including through PPP.
- Design trade policies that encourage the import and export of environment-friendly technologies and equipment.
- Direct financial institutions to fund projects and investments, particularly by SMEs in the field of SCP and green economy.

These strategic directions and proposed activities covering the 4 different sectors are translated into 28 projects presented by 13 different entities. The following list of projects have been identified through an open and transparent process, including specialized experts, government representatives and a wide range of stakeholders who actively participated different in working groups meetings addressing the 4 priority sectors: Water, Agriculture, Energy, and Municipal Solid Waste. The proposed projects by different institutions and ministries were subject to evaluation and a filtering process to ensure their relevance to the overall theme of the action plan and the sectors. These 28 projects are grouped under 6 SCP components:

- 1 Policy Instruments for SCP
- 2 Integrated Community Development
- 3 Sustainable Agriculture
- 4 Sustainable Water Management

- 5 Sustainable and Renewable Energy Applications
- 6 Integrated Solid Waste Management

Overall, the following 13 entities have presented projects towards the sustainable production and consumption action plan:

- Ministry of Environment - Egyptian Environmental Affairs Agency (EEAA)
- Ministry of Industry, Trade & SMEs/ENCPC
- Housing and Building National Research Centre
- Egypt National Cleaner Production Centre (ENCPC) and Olive Oil Council
- Ministry of Agriculture and Land Reclamation
- Ministry of Water Resources and Irrigation - Holding Company of Water and Waste Water HCWW - Ministry of Agriculture and Land Reclamation
- Soils, Water and Environment Research Institute, (SWERI) Agricultural Research Centre & Climate Change Information Centre
- AERI – Agriculture Economic Research Institute
- Egypt National Solid Waste Management Program - GIZ
- Centre for Environment and Development in Arab Region and Europe (CEDARE)
Ministry of Energy and Electricity (MoEE)/New and Renewable Energy Agency (NREA), Ministry of Local Development
- Arab Water Council
- Ministry of Water Resources and Irrigation



	Project title	Relevant Sectors/ Resources Nexus	Explaining contribution towards Integrated Sustainable Communities through SCP policies
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1: Policy Instruments for Sustainable Consumption and Production (SCP)

The Policy Instruments presents a package of policy instruments that are perceived as the first phase of integrating SCP on a national level. The Program brings together various initiatives and projects presented by working group members and public institutions to catalyze action and highlight possible synergies during the implementation phase.

1	<p>Facilitating Access to Finance for Green Growth & SCP practices</p> <p>Presented by: Ministry of Environment- EEAA</p>	<p>Agriculture, Trade, Industry, Water & Energy</p>	<p>Clean and green industries growth supports the creation of sustainable communities and cities. To do so, there is a need to improve access to finance for priority investments in infrastructure and new clean technologies. This projects aims to support the private sector through the provision of financial packages that promote different SCP industrial applications to be implemented to support the creation of a green industry applications including waste to energy, waste management, water savings, and energy savings.</p>
2	<p>Policy Tools towards Transition to Green Economy: National Green Economy Reviews (NGER) in Egypt</p> <p>Presented by: Ministry of Industry, Trade & SMEs</p>	<p>Agriculture, Trade, Industry, Water & Energy</p>	<p>There is a need for policy tools to measure progress towards a green economy and towards the creation of sustainable communities. There is also a need to explore cross-sectoral linkages. This project aims to build on several national studies that assessed Egypt's potential to transfer to a green economy but with detailed sectoral focus. A form of reality check to continuously monitor progress to reach this goal in light of Egypt's Sustainable Development Strategy taking into consideration international experience in different sectors.</p>
3	<p>Mainstreaming Green & Sustainable Public Procurement in Egypt</p> <p>Presented by: Ministry of Environment & CEDARE</p>	<p>Agriculture, Trade, Industry, Water & Energy</p>	<p>This project aims to introduce policy instruments that could influence regulating and creating demand for green products and clean technologies in public and government institutions. The project supports the gradual adoption of sustainable public procurement practices including tendering procedures and the required law amendments. A form of encouraging sustainable consumption and production on a national level through push strategies, sustainable public procurement is a significant catalyst that could accelerate the formation and the continuation of integrated sustainable communities.</p>
4	<p>Setting-Up a Renewable Energy & Energy Efficiency Fund</p> <p>Presented by: Ministry of Industry, Trade & SMEs</p>	<p>Industry & Energy</p>	<p>This Fund aims at contributing to the reduction of Egypt's energy deficit through promoting the local manufacturing and application of Renewable Energy.</p>

5	<p>Land Allocation for Renewable Energy Projects: Strategic Environmental and Social Assessments</p> <p>Presented by: Ministry of Energy and Electricity (MoEE)/New and Renewable Energy Agency (NREA), Ministry of Local Development</p>	<p>Renewable Energy & Environment</p>	<p>This project is an essential policy requirement for appropriate decision making to evaluate the potential environmental and social (E&S) impact from wind and solar energy developments on the natural, environmental resources, resident people and their lives and their well-being.</p>
6	<p>Eco-innovation in Small and Medium-sized Enterprises in Egypt</p> <p>Presented by: Egypt National Cleaner Production Centre (ENCPC)</p>	<p>Agriculture, Industry, & Energy</p>	<p>Eco-innovation is the development and application of a new or significantly improved product (good/service) or process, a new organization method or a new business practice that will lead to improved economic and environmental performance. Introducing Eco-innovation to the Egyptian industrial sector translates to the creation of green industries a component of sustainable communities.</p>



2: SCP Integrated Community Development

With the overarching goal of gradually creating sustainable communities through SCP policies and applications, two projects were submitted to represent a form of prototype on how these communities could be and how can they be sustainably operable.

7	<p>Productive Lowcost Environmentally Friendly Village (PLEV)</p> <p>Presented by: Housing and Building National Research Center</p>	<p>Water, Waste, Energy, Construction, Transportation, Agriculture, & Industry</p>	<p>The purpose of this project is to establish a pilot model of a sustainable community based on the existing potentials of one specific site (currently in Fayoum governorate which is the poorest and least developed in Egypt and another proposed location in Minya Governorate in upper Egypt where 850.000 Feddan will be cultivated out of the 1.5 million feddan National Project). Such model can be documented, assessed, evaluated, and then advocated and promoted for replication to cover the current allocated sites for 400 new communities in desert remote villages as well as the communities will be established around the 1.5 million feddan National Project.</p>
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3: SCP Sustainable Agriculture

This third component is especially important as it tackles both of Egypt's food and water security challenges and it also represent the life-line of agriculture, which could be the building block for many new sustainable agrarian and rural communities. This is particularly relevant in light of on-going national planning for mega agricultural projects.

8	<p>Renewable Energy Applications for Improving on-farm Irrigation systems</p> <p>Presented by: ENPC team and Olive Oil Council & Ministry of Agriculture</p>	Agriculture, Water & Energy	<p>Typical irrigation systems consume a great amount of conventional energy through the use of electric motors. Sustainable energy can find many applications in agriculture to empower rural sustainable communities directly engaged in agricultural activities. One application of clean energy is in water pumping for agricultural irrigation purposes. The combination of PVWP technology with water saving irrigation techniques and sustainable management of groundwater resources can lead to several benefits. This includes the enhancing land productivity, halting erosion, providing higher incomes and better living conditions for farmers, thus promoting sustainable communities.</p>
9	<p>Promoting Sustainable Agricultural Production by Optimizing Water and Fertilizers use in Desert Lands</p> <p>Presented by: Soils, Water and Environment Research Institute, (SWERI) Agricultural Research Centre & Climate Change Information Centre</p>	Water & Agriculture	<p>This project aims to introduce sustainable agriculture practices in newly reclaimed lands. As envisioned by the government around this newly reclaimed land rural sustainable communities will gradually form.</p>
10	<p>Utilizing Solar Energy for Drying Agriculture Products in Egyptian Rural Areas</p> <p>Presented by: NREA Team, Ministry of Agriculture</p>	Energy & Agriculture	<p>Another important clean technology application that could contribute to transforming the agriculture sector into a more sustainable mode.</p>
11	<p>Promoting Agricultural Waste Recycling in Egypt's Governorates</p> <p>Presented by: Agriculture Economic Research Institute (AERI)</p>	Waste, Energy & Agriculture	<p>Another source of clean energy generation is the use of agricultural waste for the production of biogas and for agriculture through compost, fertilizers and animal fodder. In many cases farmers leave residues on the banks of canals and drains where they may be dumped into the irrigation system, creating obstacles to water flow and endangering water quality.</p>



4: SCP Integrated Sustainable Water Management

This component could be an entry point to the necessity of integrated water management and directly linking it to SCP applications and policies. It includes wastewater reuse as important applications that could be a solution to the limitations of Egypt's conventional water supply. Another project promote the need of water efficiency strategies that goes hand in hand with the use of non-conventional water resources.

12	<p>A Modified Wastewater Reuse Code</p> <p>Presented by: CEDARE, Ministry of Water Resources and Irrigation - HCWW - Ministry of Agriculture and Land Reclamation</p>	Water	<p>Wastewater reuse schemes including codes are with economic, environmental and health-related benefits and used as policy tools to promote, sustain and enforce wastewater treatment and its re-use applications especially in agriculture.</p>
13	<p>Integrated Waste Water Reuse Pilot Project</p> <p>Presented by: CEDARE- Ministry of Water Resources and Irrigation - HCWW - Ministry of Agriculture and Land Reclamation</p>	Water & Agriculture	<p>Promoting sustainable agriculture production using the potential secondary treated wastewater to reclaim land for cultivation, while using non-conventional generation methods for water supply needed for irrigation purposes.</p>
14	<p>Sustainable Water Production and Consumption Model for Sustainable Communities</p> <p>Presented by: CEDARE- Ministry of Water Resources and Irrigation - HCWW - Ministry of Agriculture and Land Reclamation</p>	Water, Industry, & Agriculture, Energy	<p>Intended as an optimal model for the allocation and use of conventional and non-conventional water resources in a sustainable desert community. It could be used a guiding project to be up scaled and endorsed by relevant public and private institutions for Agricultural, Industrial, Urban Development in the Western Desert.</p>
15	<p>Siwa Sustainable Consumption and Production Water Strategy</p> <p>Presented by: CEDARE) - Ministry of Water Resources and Irrigation - HCWW - Ministry of Agriculture and Land Reclamation</p>	Water	<p>Area specific SCP water strategies are byproducts of well-organized public planning and institutional governance, a needed planning tool to manage sustainable communities.</p>
16	<p>Development of Water Strategy to Raise Water Use Efficiency in Fayoum Governorate</p> <p>Presented by: Arab Water Council</p>	Agriculture & Water	<p>The proposed project is aiming at developing a water strategy for Fayoum governorate that shall work on raising the water use efficiency in the governorate taking into account the local conditions and using participatory approach. The approach and the methodology used can be applied and replicated in other areas in the country and in the Arab region making use of lessons learned and experience gained.</p>

17	<p>Improving Water Quality in Lake Manzala Engineered Wetland (LMEW)</p> <p>Presented by: Arab Water Council</p>	Water & Agriculture	<p>The proposed project to treat drainage water applying low-cost techniques in constructed wetlands to be carried out in Lake Manzala Engineered Wetland (LMEW) located in the Eastern Delta. The objectives of the project are: to demonstrate the effectiveness of wetland technology in wastewater treatment; to present alternative uses of treated water (irrigated agric. & fish farming), to conserve Manzala Lake environment, and to investigate the impact of water treatment on the community of farmers and fishermen in the project area.</p>
18	<p>Supporting Best Practices in Decision support system is for Sustainable Water Resources Planning Strategies</p> <p>Presented by: MWRI</p>	Water Resources & Climate Change	<p>This projects aims at supporting the Ministry of Water Resources and Irrigation to develop its research capacity to identify and adopt informed decision making for sustainable water resources management. The project comes in line with Egypt's National Water Resources Strategy with a specific focus on Framework 2: Protection of Agricultural Land, and Framework 4: Providing an appropriate environment for implementation of the NWRP.</p>



5: SCP Sustainable and Renewable Energy Applications

What is being proposed is to develop Egypt's sustainable and renewable energy applications for the use of different economic sectors, particularly for industrial application or reducing the need for fuels to power generation needed for production. One key element of this component will be the willingness to adopt technologies and develop locally growth innovations. Another element will be the development by the Government of appropriate policies and frameworks that would encourage and guide the private sector to adopt these applications in different economic sectors.

19	<p>Biogas Digesters to generate energy to commercial establishments</p> <p>Presented by: NSWMP</p>	Waste & Energy	<p>Part and parcel of a sustainable community is to adopt waste to energy applications. Once generated and stored, biogas is primarily used for cooking and heating at the home scale, but it also has many other important applications both domestically and industrially. It is used as a fuel to power electric generators and could be used to fuel transportation as well. Using organic, agricultural waste the production of gas results from a natural anaerobic decomposition of organic material. Hence it promotes an efficient zero waste strategy.</p>
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20	<p>Biogas Production from Sewage Sludge Presented by: NSWMP</p>	<p>Water, Waste, & Energy</p>	<p>Promotes the safe treatment and disposal of municipal sewage water could be consistent with the rapid growth of sustainable communities. However, facilities for municipal sludge are needed. Biogas production through sewage sludge reduces the associated health problems and optimization of sewage sludge treatment. It is another process linked to zero waste policy and the production of clean energy.</p>
21	<p>Utilizing Solar Energy for Heating purposes in Egyptian hotels & hospitals sectors Presented by: New and Renewable Energy Agency (NREA)</p>	<p>Energy, Health, Tourism</p>	<p>The use of clean energy in the tourism and health sectors would lead to significant energy saving and if successful would represent a successful model that could be replicated in other similar sectors such as schools.</p>
22	<p>Utilizing Solar Energy Cooking & Heating in Egypt's Rural Areas Presented by: Ministry of Energy and Electricity (MoEE)/New and Renewable Energy Agency (NREA) & ENCPC</p>	<p>Energy</p>	<p>Promoting sustainable lifestyle, clean energy and consumption behavioral change, especially in rural areas, where poverty incidence is high could lead to a significant improvement of quality of life and contribute to integrating new patterns sustainable consumption.</p>
23	<p>Industrial Electrical Motor Driven Systems (EMDS) Efficiency Program in Egypt Presented by: ENCPC</p>	<p>Industry & Energy</p>	<p>The theme of the project contributes to energy saving applications and efforts in the industrial sector as an integral step for promoting cleaner production processes. This is especially valid since electric motors and the systems they drive are the single largest electrical end use, consuming more than twice as much as lighting.</p>
24	<p>Promoting Energy Efficiency for Boilers & Utilizing Solar Energy for Industrial Process Heat in Food, Chemicals and Textiles Sectors Presented by: ENCPC & MoEE</p>	<p>Industry & Energy</p>	<p>Demonstrating the potential use of clean energy, renewable energy specifically, to power industrial heating processes to improve the energy efficiency and promotion of solar thermal technologies manufacturing in Egypt. A significant share of the heat consumed in the industrial sector is in the low and medium temperature range. This makes the industrial sector a promising and suitable application for solar thermal energy.</p>



6: SCP Solid Waste Management

The volume of waste being generated continues to increase at a faster rate than the expansion of solid waste management measures and ability of the municipal authorities to improve on the financial and technical resources needed to parallel this growth, this component provide a select of projects to address different sides of one of Egypt’s perpetual challenges. Solid waste should be managed through a number of activities—waste prevention, recycling, composting, controlled burning, or landfilling. Using a combination of these activities together in a way that best protects community and the local environment.

25	Reducing Plastic bag consumption Presented by: NSWMP	Municipal Solid Waste	This project stresses the importance of effective government policy in shaping consumer behavior. Placing a value on single use plastic bags could dramatically reduce plastic bags consumption and protect the environment from their adverse effects. If successful similar models could be promoted to support other changes in unsustainable consumption trends through policy instruments and regulation.
26	Egypt’s Marine Litter Extraction Project Presented by: NSWMP	Municipal Solid Waste	Plastic litter has been a major polluting source for open sea and coastal cities, which has impacted tourism. This has a health and economic adverse impact on surrounding communities. There is an urgent need for raising awareness of the public and other stakeholders on the importance of combating marine litter in Egypt.
27	Extended Producer Responsibility Pilot- E-Hub Project Presented by: NSWMP	Waste	Producers of electronic goods need to assume full responsibility for the lifecycle of their products, including the post consumption phase. Engaging producers (importers and manufacturers) of electronic goods in Egypt to ensure environmentally sound collection and recycling of their products could be a game changer that would signal the application of EPR for other sectors.
28	Green Growth: Industrial Waste Management and SME Entrepreneurship Hub in Egypt Presented by: ENCPC	Industry & Waste	Being able to use industrial waste in support of a zero waste policy and support a flourishing recycling market is directly linked to the promotion of both sustainable consumption and production. This process is envisioned to contribute towards the formation of sustainable communities and juxtaposed to the current prevailing industrial production procedures.

Developing National Action Plans (NAP) for Sustainable Consumption and Production (SCP) contributes to poverty alleviation, environmental sustainability and the development of a green economy. National SCP-NAPs are considered the first step in a country's response to the 2015 adopted Sustainable Development Goals (SDGs) and in particular Goal 12: Responsible consumption and production.

The SCP-NAP process in Egypt is based on the 2013 "Green Economy Scoping Study" that assessed the potential for Egypt's transition to a green economy and sustainable development. This study focused on water, agriculture, energy and municipal solid waste.

This action plan focuses on demonstrating the importance of creating Sustainable Integrated communities in Egypt with focus on four priority strategic sectors. These include: Water, Agriculture, Energy, and Municipal Solid Waste. These sectors were identified on the basis of the extent of their significance to creating sustainable communities that supports resources efficiency efforts, promotes competitiveness, creates jobs, and promotes environmental conservation, human health and welfare.

Within the overarching direction to support the development of 'Integrated Sustainable Communities', the National Action Plan aims at supporting Egypt's development efforts in achieving sustainable development. The action plan aims to do so by promoting the efficient allocation and use of water and energy resources, promote sustainable agriculture development, as well as waste management including prevention, reduction, recycling, reuse, and recovery.

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