



SwitchMed II project in Egypt



Awareness Workshop on “The Impacts of Single-Use Plastic Pollution on the Marine Ecosystem”

Report by: CEDARE Egypt

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SwitchMed II project in Egypt
Date: 2/7/2024

*Awareness Workshop on
“The Impacts of Single-Use Plastic Pollution
on the Marine Ecosystem”*

29th of June 2024 – InterContinental CityStars Hotel, Cairo





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Executive Summary

Within the framework of the SwitchMed II Project in Egypt, Policy Component, the Egyptian Ministry of Environment, in partnership with [the Centre for Environment & Development for the Arab Region & Europe \(CEDARE\)](#) and [the United Nations Environment Programme \(UNEP\)](#), held an awareness workshop on “**The Impacts of Single-Use Plastic Pollution on the Marine Ecosystem**” on the 29th of June 2024 at InterContinental CityStars Hotel in Cairo.

The awareness workshop aimed at highlighting the harmful effects of single-use plastics on the marine ecosystem and promoting behavioral changes to reduce plastic waste and mitigate the impacts of pollution. The workshop also aimed at presenting innovative approaches to raise public awareness on marine litter, identifying strategies and solutions to address this issue and promoting the principles of circular economy to reduce waste and foster sustainability in Egypt.

The interactive workshop shed light on the sources and pathways of marine litter, highlighting the threats it poses to biodiversity and human health. It also explored innovative ways to engage the public and incite behavioral change, and showcased Egypt's international and regional commitments to combat marine litter. Additionally, the workshop underlined the efforts undertaken as part of the SwitchMed II Project to raise awareness about the impact of single-use plastic. Jointly implemented by CEDARE, UNEP and the Ministry of Environment, the SwitchMed II Project, Policy Component, aimed at promoting circular economy and supporting sustainable consumption and production strategies in Egypt.

The awareness workshop was attended by 41 participants, ranging from representatives of ministries, universities, national entities, and international organizations.

Even though the awareness workshop marked the end of SwitchMed II Project in Egypt, Policy Component, it also represented the beginning of a journey to incite behavioral changes and raise awareness on the critical issues of marine litter and plastic pollution.

Pictures of the event: [*Awareness Workshop on “The Impacts of Single-Use Plastic Pollution on the Marine Ecosystem”*](#)

To watch the full event on YouTube: [*Awareness Workshop on “The Impacts of Single-Use Plastic Pollution on the Marine Ecosystem”*](#)



Welcome Notes

The awareness workshop began by extending a warm welcome to all distinguished participants and setting the scene for a dynamic and interactive exchange. Moderated by Ms. Ghada Moghny, Senior Programme Coordinator, CEDARE, the welcome notes were jointly delivered by Dr. Hossam Allam, Regional Director for Sustainable Growth, CEDARE, and Dr. Noha Samy, National Focal Point of SwitchMed II, Ministry of Environment. Key highlights of the opening session are presented below.

Dr. Hossam Allam, Regional Director for Sustainable Growth, CEDARE:



“Today is a special occasion for us as it marks the end of the SwitchMed II Project in Egypt, Policy Component. The SwitchMed Programme is an EU-funded initiative aimed at fostering sustainable consumption and production patterns in Southern Mediterranean countries and integrating them into national policies.

Since 2015, CEDARE has been collaborating with the Ministry of Environment and UNEP to implement the SwitchMed Programme. The second phase of the programme entailed several activities dedicated to addressing plastic pollution and single-use plastic bags. This awareness session is one of these activities, aiming to raise awareness among participants on the impacts of single-use plastics on the marine ecosystem. We hope that this session will benefit all participants and contribute to a positive change in our country.”

Dr. Noha Samy, National Focal Point of SwitchMed II, Ministry of Environment:

“I am delighted to participate in the closing activity of the SwitchMed II Project and to be the focal point. I hope that this session will be a valuable and informative experience for all participants. This workshop aims to raise awareness about the devastating impacts of plastic pollution, particularly single-use plastic bags, on marine life and coastal ecosystems. This is a global issue, and on the national level, it has severe negative effects on our maritime ecosystem and biodiversity, which is a foundation of our economy and investment. I am also pleased that we have collaborated with the United Nations and CEDARE on the SwitchMed project. I hope that this workshop will be beneficial for everyone and provide an opportunity for open discussions and knowledge sharing.”



Key Notes Speech

Following the welcome notes, **Prof. Mostafa Fouda, Advisor to the Minister of Environment for Biodiversity**, delivered a key note speech to the participants. He began by expressing his gratitude to the Ministry of Environment, CEDARE and UNEP for organizing the awareness workshop.



He emphasized that while CEDARE has conducted numerous studies, it is essential to translate the findings into actions that would benefit a large number of people, particularly in the context of awareness-raising initiatives. Prof. Fouda highlighted that globally, awareness is often referred to as CEPA – Communication, Education, and Public Awareness. To effectively raise awareness, one must be able to communicate the message in a compelling manner that resonates with the target audience, possess a strong educational foundation on the topic being addressed, and have experience in delivering the message.

Noting that 2012 marked 20 years since the signing of the Rio Convention, Prof. Fouda recalled that world leaders recognized that "business as usual" with traditional approaches was no longer acceptable and that innovative solutions were urgently needed. He concluded by emphasizing that traditional methods of raising awareness are no longer effective and that awareness workshops must be interactive and engaging to achieve meaningful outcomes.

The key notes were followed by a tour de table where all participants introduced themselves.

Marine Litter and Single-Use Plastic Sources and Fate

Following the tour de table, Dr. Noha Samy delivered a presentation titled “**Marine Litter and Single-Use Plastic Sources and Fate**”.

The presentation defined marine litter as any persistent, manufactured or processed solid material discarded into the sea, rivers, or beaches, or brought indirectly to the sea through rivers, sewage, stormwater, or winds, according to UNEP. Dr. Samy then provided an overview of the history of marine litter, tracing its origins back to expeditions in the 1970s and the discovery of the Great Pacific Garbage Patch.



She explained that marine litter is sourced from both sea-based and land-based activities. The majority of marine litter consists of single-use plastics, which were highlighted as a major concern. Dr. Samy explored the fate of plastic litter, explaining how it affects marine life and eventually reaches humans through the food chain.

Dr. Samy then delved into the various sizes of plastic litter and the factors that influence its circulation. Finally, she showcased a field survey conducted over five years in Alexandria's coastal area, examining the most common items found in marine litter and identifying their sources.

Attached is the PowerPoint Presentation delivered by Dr. Samy during the awareness workshop (Annex 2: Presentation on Marine Litter and Single-Use Plastic Sources and Fate).

Open Discussion

To kick-start an engaging discussion, Prof. Fouda encouraged participants to share their thoughts on how to motivate the public to reduce single-use plastic bag consumption. He invited a representative from each table to translate Dr. Samy's information into a compelling message that could resonate with the general public. The responses were diverse, with some suggestions including showcasing videos highlighting the devastating impact of marine litter on marine life and the potential for plastics to enter the human food chain. Others proposed organizing on-the-ground campaigns or clean-up initiatives to raise awareness. One participant even suggested utilizing artificial intelligence to convey the message to the youth who are into technological advancements.



Prof. Fouda, however, urged the group to think outside the box and explore available opportunities. He reminded them that when faced with a problem, innovative solutions are often born from exploring new possibilities. He recalled a 2017 UN conference on ocean conservation where a company showcased its innovative approach to turning plastic waste into products. To illustrate this point, Prof. Fouda presented a pair of socks produced by this company and made from recycled plastic, demonstrating the potential for creativity in addressing environmental challenges. Ms. Moghny cited examples of international brands such as Nike, Adidas, and Decathlon, which are now producing clothing made from recycled materials.



Ms. Dana Ahmed, representative of HEPCA, interferred to speak about her project which was launched last year, called Asfour Initiative. She showcased a remarkable product created by Bedouin women and their teenage children who collect plastic waste and use it to stuff a turtle doll, earning a percentage of the profit. The initiative impressed the participants, and Prof. Fouda highlighted the growing global trend of engaging youth and women in various sectors.

Threats of Marine Litter on Biodiversity

Following the open discussion, Prof. Fouda led an interactive session on “**Threats of Marine Litter on Biodiversity.**” To promote active participation, he randomly selected participants to present slides and provided constructive feedback on their communication skills and suggested areas for improvement.

The presentation provided a comprehensive overview of marine litter's far-reaching impacts. It was emphasized that marine litter comes in various sizes and can affect multiple economic activities, including fishing, aquaculture, tourism, recreation, and shipping. The pollution not only harms habitats, ecosystems, and biodiversity but also poses a significant threat to various species.

The presentation highlighted the devastating consequences of marine litter, including entanglement and ingestion by marine species; mistaken consumption by turtles and other animals; physical harm from sharp particles; damage to sensitive ecosystems like coral reefs and seagrass beds; negative impacts on human health through the food chain; risks to human safety from damaged boat propellers and engine intake. Furthermore, the presentations stressed that marine litter can have significant economic consequences, including degradation of beaches; damage to propellers and blocked intake pipes; destruction of fishing nets; and contaminated catches.

At the end of the session, Prof. Fouda invited participants who did not present to provide feedback on selected participants who presented the slides.

Attached is the PowerPoint Presentation delivered during the session (Annex 3: Presentation on Threats of Marine Litter on Biodiversity).

International and Regional Commitments on Marine Litter “Monitoring and Assessment”

Dr. Sameh Reyad, Head of the Central Department of the West Delta Branch of the Egyptian Environmental Affairs Agency (EAAA) and National Focal Point of the Mediterranean Action Plan (MEDPOL) and Marine Litter, delivered a presentation highlighting Egypt's international and regional commitments to combat marine litter. The commitments include Article 12 of the Barcelona Convention, which focuses on pollution monitoring, as well as the Ecosystems Approach, a strategy for the integrated management of land, water, and living resources that promotes conservation and sustainable use. Additionally, commitments encompass the Marine Litter Regional Plan, which provides a comprehensive and integrated framework for marine litter prevention and management, and the Integrated Monitoring and Assessment Programme and related Assessment Criteria, which enables a quantitative, integrated analysis of the state of the marine and coastal environment, covering pollution and marine litter, biodiversity, non-indigenous species, coast, and hydrography.





Dr. Reyad explained the methods for monitoring beach marine litter, including macro litter, microplastics, and nanoplastics, as well as monitoring marine litter at sea, including floating macro litter, floating micro litter, and sea bottom litter. He also showcased some Egyptian monitoring activities undertaken in Alexandria where plastic was found to be the dominant form of marine litter. Furthermore, Dr. Reyad presented some awareness activities that have been conducted to raise public awareness about the issue.

In conclusion, Dr. Reyad highlighted the guidance strategy developed by Egypt's Ministry of Environment, CEDARE, and JICA to reduce plastic bag consumption to 50 bags per capita by 2030.

Attached is the PowerPoint Presentation delivered during the session (Annex 4: Presentation on International and Regional Commitments on Marine Litter “Monitoring and Assessment”).

Awareness for Negative Impacts of Single-Use Plastic Bags

Ms. Moghny began the session by presenting an [awareness-raising advertisement](#) produced as part of the SwitchMed II Project, featuring well-known social media influencers to promote behavioral change and reduce the consumption of single-use plastic bags.

Next, Ms. Moghny explained that CEDARE had developed various awareness presentation files tailored for specific sectors, including school-aged children, university students, the general public, and the industrial sector. During the workshop, she provided an overview of the public presentation.



Ms. Moghny started the presentation by recounting the story of plastic and its evolution over time. She highlighted the versatility, cost-effectiveness, sturdiness, lightness, protection, and hygiene of plastic bags. Notably, she mentioned that the Guinness Book of World Records had named the plastic bag the most ubiquitous consumer product in 2009, with trillions produced globally.

Ms. Moghny went on to discuss global plastic bag consumption, which is estimated to be 160,000 bags per second and 5 trillion bags per year. She also emphasized that the average lifespan of a single-use plastic bag is around only 20 minutes. The decomposition lifetime of various items was then showcased, including paper, food waste, steel, and newspapers, highlighting that plastic takes the longest to decompose. Studies revealed that plastic bags are the most widespread waste items polluting the world's oceans, followed by plastic bottles.

Ms. Moghny addressed key concerns regarding lightweight plastic bags, including the use of non-renewable resources in their production and the difficulty and expense of recycling them.

Additionally, she pointed out that they do not biodegrade but instead photodegrade into microplastics that contaminate soil and enter the food chain. Those that do not end up in landfills litter the environment, polluting waterways and harming wildlife. Animals can become entangled in plastic bags or mistake them for food, leading to death.

Ms. Moghny then underlined the subject of circularity and achieving sustainability in the plastic bag industry, shedding light on Egypt's National Strategy to Limit Single-Use Plastic Bags. The target is to reduce annual consumption from 350 bags per capita to 100 bags per capita by 2025 and 50 bags per capita by 2030. This goal will be achieved by stopping the free distribution of single-use shopping plastic bags and increasing bag thickness while ensuring manufacturing complies with mandatory technical specifications.

Attached is the PowerPoint Presentation delivered during the session (Annex 5: Presentation on Single-Use Plastic Bags).

Following the presentation, participants were divided into groups to answer questions on Kahoot! to test their understanding of the workshop's content and retention of key information.

Panel Session

The final session of the awareness workshop consisted of a panel discussion moderated by **Dr. Mona Samir, Manager of Public Awareness Department, EEAA**. Dr. Samir engaged **Dr. Mohamed Abd Elrazik, Head of the Central Department of Tourism and Summer Resorts at the Alexandria Governorate**, in a discussion about the negative impact of single-use plastic bags and marine litter on beaches and the efforts being made by the governorate to preserve biodiversity. Dr. Abd Elrazik highlighted the pressing issue of marine litter and plastic pollution in Alexandria, citing the often-practice of tourists leaving behind litter on beaches. He noted that Nahdet Masr is responsible for collecting litter in the Alexandria governorate, with tons of waste collected daily. To address this issue, the governorate has launched 30 awareness-raising campaigns during the summer months to educate the public and encourage behavioral change. Nevertheless, Dr. Abd Elrazik emphasized that enforcement of existing laws and imposition of fines are crucial to prevent this kind of behavior and ultimately stop marine littering.



Dr. Samir then turned to **Dr. Hesham El Asmar, Faculty of Sciences, Damietta University**, to address a pressing question about the impact of climate change and temperature increase on the speed of plastic breakdown in marine life. Dr. El Asmar concurred that climate change does indeed



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have an impact on the breakdown of plastic in seas. He explained that changes in temperature affect the fatty acid composition of plastic and lead to an increase in monounsaturated fats and in levels of nitrogen. Plastic breakdown leads to the formation of greenhouse gases such as methane and methylene. According to Dr. El Asmar, climate change has a profoundly negative impact on both plastics and marine life, highlighting the need for a comprehensive approach to addressing this issue.

Dr. Mohamed ElSherif, National Institute for Oceanography & Fisheries, addressed the question of how plastics make their way into the human food chain through fish consumption. Dr. ElSherif highlighted the worrying phenomenon of microplastic ingestion by microorganisms, which are then consumed by fish, and ultimately by humans. He emphasized that this route is more likely to occur due to the small size of microplastics, which can be easily ingested by fish. Moreover, Dr. ElSherif warned that the presence of plastics in the marine environment can have significant impacts on fish behavior, productivity, and quality, potentially even leading to fish mortality.

The panel discussion then turned to the impact of plastic on birds. **Dr. Osama ElGebaly, Migratory Soaring Birds Project & Advisor to Development of Qaroun & Al-Rayan Lakes Project, EEAA**, explained that approximately 10,000 bird species migrate and are affected by plastic during their journeys. Birds can ingest plastic particles, and since humans consume certain bird species, plastics ultimately end up in the human food chain. According to Dr. ElGebaly, 40% of birds worldwide ingest plastic particles. **Dr. Basma Sheta, Faculty of Sciences, Damietta University**, added that Egypt struggles with open garbage dumps, which serve as a significant source of plastic that birds feed on.

The last question was directed at **Dr. Abeer Mounir, National Institute for Oceanography & Fisheries**, to provide insights on the topic of bio plastics. Dr. Mounir highlighted the growing trend of producing polymers from natural sources, which involves simulating the creation of plastic bags from organic materials. The primary benefit of this approach is that the resulting bags will biodegrade, reducing the environmental impact of traditional plastic waste. Currently, researchers are actively working on this topic, and it is projected that by 2050, 50% of the world's polymers will be derived from natural sources, marking a significant shift towards a more sustainable future.

Closing Remarks

The awareness workshop concluded with closing remarks jointly delivered by Prof. Mostafa Fouda, Dr. Noha Samy, and Dr. Hossam Allam. The speakers extended special thanks to the participants and the dedicated team who worked tirelessly to organize the workshop. Dr. Allam emphasized the importance of collaboration in driving change, highlighting that the issue of single-use plastic bags is now receiving serious attention from authorities and that all national stakeholders are working collectively to reduce consumption and combat plastic pollution.



Annexes

1. Agenda of the Workshop



Awareness Workshop on

“The Impacts of Single-Use Plastic Pollution on the Marine Ecosystem”

تأثير التلوث الناتج عن البلاستيك أحادي الاستخدام على النظم البيئية البحرية

AGENDA

Time	Session	Speakers
09:30 – 10:00	Registration	
10:00 – 10:15	Welcome Notes	Dr. Hossam Allam Regional Director of Sustainable Growth Programme, CEDARE Dr. Noha Samy National Focal Point of SwitchMed II
10:15 – 10:30	Key Notes Speech	Prof. Mostafa Fouada Minister of Environment's Advisor for Biodiversity
10:30 – 11:00	Marine Litter and Single-Use Plastic Sources and Fate	Dr. Noha Samy National Focal Point of SwitchMed II
11:00 – 11:30	Threats of Plastic Pollution on Biodiversity	Prof. Mostafa Fouada Minister of Environment's Advisor for Biodiversity
11:30 – 12:00	Open Discussion	Prof. Mostafa Fouada Minister of Environment's Advisor for Biodiversity Dr. Noha Samy National Focal Point of SwitchMed II
12:00 – 12:30	Coffee Break	
12:30 – 01:00	International and Regional Commitments on Marine Litter "Monitoring and Assessment"	Dr. Sameh Reyad Head of the Central Department of West Delta Branch, EEAA & National Focal Point of MEDPOL and Marine Litter
01:00 – 01:15	Panel Session Moderator: Dr. Mona Samir	Tourism Opportunities and Challenges Dr. Mohamed Abd Elrazik Head of the Central Department of Tourism and Summer Resorts - Alexandria Governorate
01:15 – 02:30		Clean-Up Campaigns Dr. Sameh Reyad Head of the Central Department of West Delta Branch, EEAA & National Focal Point of MEDPOL and Marine Litter
02:30 – 02:45		Awareness for Negative Impacts of Single-Use Plastic Bags Ms. Ghada Moghny Senior Programme Coordinator, Sustainable Growth Programme, CEDARE
02:45 – 03:00	Discussion and Closing	Dr. Hossam Allam Regional Director of Sustainable Growth Programme, CEDARE Dr. Noha Samy National Focal Point of SwitchMed II Prof. Mostafa Fouada Minister of Environment's Advisor for Biodiversity
03:00 – 04:00	Lunch	



2. [Presentation on Marine Litter and Single-Use Plastic Sources and Fate](#)
3. [Presentation on Threats of Marine Litter on Biodiversity](#)
4. [Presentation on International and Regional Commitments on Marine Litter “Monitoring and Assessment”](#)
5. [Presentation on Single-Use Plastic Bags](#)
6. Social Media Links

<https://www.facebook.com/share/p/AkeXFK3waLahiQt5/?mibextid=oFDknk>

<https://www.facebook.com/share/v/wN1tLhKeG7jfrxLc/?mibextid=oFDknk>

https://www.linkedin.com/posts/center-for-environment-%26-development-for-the-arab-region-and-europe-cedare-_aepaesetaewaesaepaepaesabraepaesaeqaesaepaebaesaeyaeraeyaer-activity-7213181845574721538-cWfE?utm_source=share&utm_medium=member_android

https://www.linkedin.com/posts/center-for-environment-%26-development-for-the-arab-region-and-europe-cedare-_awareness-singleabruse-plasticabrppollution-activity-7213184888798154752-a_6G?utm_source=share&utm_medium=member_android

7. List of Participants

No.	Title	Name	Organization
1	Prof.	Moustafa M. Fouda	Advisor to the Minister of Environment
2	Dr.	Noha Samy	National Focal Point, EEAA
3	Ms.	Engy Sabry	Awareness Department, EEAA, Ministry of Environment
4	Ms.	Heba Nabil	EEAA
5	Ms.	Shereen Ahmed	EEAA
6	Ms.	Kareema Mahmoud	EEAA
7	Ms.	Marian Arian Amen	EEAA
8	Mr.	Mohamed Sayed Abas	EEAA
9	Dr.	Mohamed Abdel Razek	Head of Central Department of Tourism & Beaches, Alexandria Governorate
10	Mr.	Ayman H. Taher	Blue Heaven Holidays
11	Ms.	Dalia Taha	Awareness Department, EEAA, Ministry of Environment
12	Dr.	Hesham El Asmar	Faculty of Sciences, Damietta University
13	Ms.	Naglaa Mohamed	Ministry of Youth & Sports
14	Dr.	Fatma Bekhit	EEAA (Alexandria)
15	Dr.	Mariam Gamal Amine	EEAA (Alexandria)
16	Dr.	Maysa Nabeh	Helwan University
17	Mr.	Fathy Rashwan	NGOs Department, EEAA, Ministry of Environment



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18	Dr.	Basma Sheta	Faculty of Sciences, Damietta University
19	Eng.	Mohamed Ashour	Lakes & Fish Resources Protection & Development Agency
20	Ms.	Eman Mahmoud	EEAA
21	Dr.	Hanaa Sayed	Awareness Department, EEAA, Ministry of Environment
22	Dr.	Sameh Reyad	Head of the Central Department of West Delta Branch, EEAA & National Focal Point of MEDPOL and Marine Litter
23	Mr.	Ahmed Khalaf	NGOs Department, EEAA, Ministry of Environment
24	Dr.	Adel Soliman	Migratory Soaring Birds Project, EEAA
25	Dr.	Osama ElGebaly	Migratory Soaring Birds Project & Advisor to Development of Qaroun & Al-Rayan Lakes Project, EEAA
26	Dr.	Saber Riad	Faculty of Sciences, Al Azhar University
27	Dr.	Abeer Moneer	National Institute for Oceanography & Fisheries
28	Dr.	Asmaa Hassan	National Authority for Remote Sensing & Space Sciences (NARSS)
29	Ms.	Dana Ahmed	HEPCA
30	Dr.	Mona Samir	EEAA
31	Mr.	Mamdouh Mostafa	Awareness Department, EEAA, Ministry of Environment
32	Ms.	Shaimaa Ahmed	Awareness Department, EEAA, Ministry of Environment
33	Mr.	Ahmed Abdel Monem	Plastic Unit, WMRA, Ministry of Environment
34	Dr.	Mohamed Elsherif	National Institute for Oceanography & Fisheries
35	Ms.	Nagla Ahmed	WMRA, Ministry of Environment
36	Dr.	Hossam Allam	Regional Director, Sustainable Growth Programme, CEDARE
37	Ms.	Ghada Moghny	Senior Programme Coordinator, Sustainable Growth Programme, CEDARE
38	Ms.	Salma Nooh	Junior Programme Coordinator, Sustainable Growth Programme, CEDARE
39	Ms.	Lamia Nabil	Communication & Admin Officer, Sustainable Growth Programme, CEDARE
40	Ms.	Terry Fahmy	Regional Programme Specialist, Sustainable Growth Programme, CEDARE
41	Eng.	Samir Sayed	IT Support Specialist, CEDARE