

# **Full report- External**

# **Celebration of World Environment Day 2021**



- Date: Thursday 3 June 2021 | 14.00-16.40 (Beijing Time) Thursday 3 June 2021 | 11.00-12.00 (Indian Time) Friday 4 June 2021 | 13.00-16.00 (Bangkok Time) Saturday 5 June 2021 | 16.30-18.00 (Pakistan Time)
- Venue: Hybrid (Beijing and Real-time Live Streaming) (China) Online via Zoom (India and Pakistan) Live Broadcasting from Asian Institute of Technology (Thailand)

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# **Table of Contents**

List of Acronyms:	3
Background:	4
Logistical information about the event	6
Review on Participants:	7
Summary of key messages:	8
Welcome and Opening remarks:	11
Panel sessions:	
Conclusion sessions:	
Highlights of discussions:	
Evaluation/Assessment results:	
Annexes:	
Annex 1: The Final Agenda	
Annex 2: Leaflets of the events	









# List of Acronyms:

AIT	Asian Institute of Technology
BCG model	Bio-Circular-Green Economy model
BFFP	Break Free From Plastic
CE	Circular Economy
COVID-19	Coronavirus Disease 2019
EU	The European Union
FAO	Food and Agriculture Organization of the United Nations
FAO-RAP	Food and Agriculture Organization of the United Nations-Reginal Office for Asia and the Pacific
IGSNRR	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
IUCN	International Union for Conservation of Nature
MEE	Ministry of Ecology and Environment
MoNRE	Ministry of Natural Resources and Environment
NSM	National Science Museum Thailand
SCP	Sustainable Consumption and Production
SDGs	Sustainable Development Goals
SDPI	Sustainable Development Policy Institute
SGGSCC	Sri Guru Gobind Singh College of Commerce
SMEs	Small and Medium-sized Enterprises
SWITCH-Asia RPAC	SWITCH-Asia Regional Policy Advocacy Component
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNFSS	United Nations Forum on Sustainability Standards
UNFSS-	UNFSS Action Track 2 – Shift to healthy and sustainable consumption
ActionTrack2 WED	patterns World Environment Day





## **Background:**

**SWITCH-Asia** is the programme funded by the European Union (EU) to promote sustainable consumption and production (SCP) across the Asian Region. The SWITCH-Asia Regional Policy Advocacy Component (RPAC), implemented by United Nations Environment Programme, is designed to strengthen the dialogue at regional, sub-regional and national policies on Sustainable Consumption and Production and thereby contributing to green growth and reduction of poverty in Asian countries.

**World Environment Day (WED)** takes place every year on 5<sup>th</sup> June as the United Nations' flagship day for promoting worldwide awareness and action for the environment. This year's observance of World Environment Day is on the theme of 'ecosystem restoration' and focus on resetting our relationship with nature. It also marks the formal launch of the UN Decade on Ecosystem Restoration 2021-2030. This year, 2021, RPAC plans to celebrate the WED, with the theme of 'Ecosystem Restoration' and the key message is 'Reimagine. Recreate. Restore'

### **Ecosystem Restoration and Sustainable Food Production and Consumption**

On this national dialogue, China is looking forward to advocating SCP with a focus on farmland ecosystem and sustainable consumption and production in China. Farmlands now cover more than one-third of the Earth's land surface and are perhaps our most vital ecosystems to sustain human-kind. In China, farmland is facing multiple challenges, including food security risk, ecosystem degradation, reduction of cultivated land and climate change, due to the rapid industrialization, urbanization, and increased population.

Restore agricultural ecosystems by using nature, such as using crop rotations, and growing more diverse crops and integrating them with livestock would boost farm productivity. The resource circularity in food production and consumption can also contribute to the development of resilient ecosystems, such as increased agricultural efficiency through local production of food, enhanced ecosystem by adopt of agro-ecological practices and food waste composting. This national dialogue aims to highlight environmental issues and raise awareness on links between ecosystem restoration and sustainable food consumption and production.

# Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration

Increasing food consumption by a growing population, together with changing dietary habits, poses an immense challenge for the global food system including India with the second largest population in the world. A crucial question is how to meet the increasing demand for food and provide healthy diets for all for the decades to come without undermining the Earth's resources and crossing planetary boundaries. At the same time with the rise in online food delivery due to pandemic, packaging waste (mostly plastic) has emerged as a key concern.

In line with the WED theme of ecosystem restoration, SWITCH-Asia RPAC in partnership with Sri Guru Gobind Singh College of Commerce (SGGSCC), University of Delhi organized a webinar for youth, to highlight the vital role of applying SCP principles for the resilient ecosystems with a focus on Sustainable Food Systems. This webinar aimed to inspire youth







action and engagement towards adopting sustainable, organic and healthy diets while being mindful of the packaging waste and issues around it.

### Launch of the UN Decade on Ecosystem Restoration

For too long, we have been exploiting our planet's ecosystems beyond the ecological carrying capacity. This has caused serious imbalances in ecosystem services and the human life support system. This trend needs to be redressed, for the sake of human survivability. Ecosystem restoration, in other words 'turning from exploiting nature to healing it', is absolutely essential. World Environment Day 2021 is the first year of the UN Decade on Ecosystem Restoration, a global mission to revive billions of hectares of ecosystems, from forests to farmlands, from the top of mountains to the depth of the sea.

World Environment Day offers a global platform for inspiring positive change. It pushes for individuals to actively improve their consumption behaviour; for businesses to develop greener models; for governments to invest in repairing the environment; and for youth to build a greener future, for people to reinvigorate a coalition between humanity and nature.

### **Ecosystem restoration In Sustainable Consumption and Production Context**

Pakistan is the global host for WED 2021. Accordingly, SWITCH-Asia RPAC, implemented by UNEP, in collaboration Sustainable Development Policy Institute (SDPI) organized an online webinar on "Ecosystem Restoration in Sustainable Consumption and Production Context" on 5<sup>th</sup> June 2021. The webinar objectives are to celebrate the WED, highlighting the concept of ecosystem restoration to members of the general public through voices from the ground, showcase relevant best practices and expert opinion on links between ecosystem restoration and SCP as well as strengthening a dialogue on green economy and SCP in Pakistan.









### Logistical information about the event

### **Ecosystem Restoration and Sustainable Food Production and Consumption**

The national dialogue linking ecosystem restoration to sustainable food production and consumption was organized by SWITCH-Asia RPAC in partnership with Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR), to celebrate the World Environment Day 2021 in Beijing (IGSNRR meeting room) with livestreaming on 3<sup>rd</sup> June 2021. The event was conducted in Chinese.

# Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration

The webinar on empowering youth for SCP and ecosystem restoration was organized by SWITCH-Asia RPAC in partnership with Sri Guru Gobind Singh College of Commerce (SGGSCC), University of Delhi to celebrate the World Environment Day 2021 in India on 3<sup>rd</sup> June 2021. The event was organized online through Zoom platform. It was also streamed live on <u>YouTube</u>.

### Launch of the UN Decade on Ecosystem Restoration

The webinar on Launch of the UN Decade on Ecosystem Restoration was organized by SWITCH-Asia RPAC in partnership with public and private stakeholders to celebrate the World Environment Day 2021 in Thailand on 4<sup>th</sup> June 2021. The event was organized as a hybrid-event via live broadcasting from Asian Institute of Technology (AIT).

### **Ecosystem restoration In Sustainable Consumption and Production Context**

The webinar on Ecosystem restoration In SCP Context was organized by SWITCH-Asia RPAC in partnership with SDPI on 5<sup>th</sup> June 2021. The event was organized on Zoom and streamed live on SPDI and SWITCH-Asia Facebook pages.







## **Review on Participants:**

More than 850 participants were registered prior to the 4 events. The events almost 200,000 views via livestreaming platforms: Zoom, Facebook, Youtube, Vzan, Baidu and Sohu. Figures below presents the distribution of participants who registered prior to the event by stakeholders and gender. Based on total of 865 registration, 55% were female and 45% were male. Both of them represented mainly by Youth/University student and Academia sectors.



# Registration by Gender (%)





environment





### Summary of key messages:

### **Ecosystem Restoration and Sustainable Food Production and Consumption**

The national dialogue on ecosystem restoration and sustainable food production and consumption, as a complimentary to the Celebration of the 2021 World Environment Day, brought together 16 notable speakers from academics, national government, international organizations, civil society and private sectors to share insights, current status, challenges, opportunities and practices on how to restore and protect ecosystem especially farmland through sustainable food production and consumption as a principle and a systematic tool.

The expert panel discussed the food lifecycle of production and farming process, logistics, storage, consumption and waste management, and their impacts on ecosystems. Mr. ZHU Yongguan from Chinese Academy of Sciences presented the Soil-Food-Environment-Health Nexus for Sustainable Development as a keynote speech. 'Soil health is the foundation of food health and human health. Fostering a healthy soil is a nexus approach for high quality development and sustainable life' he said. In this panel, technology, innovation and policy were highlighted to improve food production efficiency and circular economy in food system, as well as the potential contribution of the food system to carbon neutrality. The roles of women in sustainable food consumption and production, and how to empower rural women were also highlighted.

Good practices and case studies on sustainable food consumption and production from private sectors, civil society, practitioners and youth were presented to the meeting. The traditional nomadic husbandry culture in Qilian Mountain National Park in North-West part of China was mentioned to showcase restoration of the grassland ecosystem and production of organic food. A SWITCH-Asia Grant project on Pride on Our Plates in China aiming to preventing and reducing food waste among SMEs in China's hospitality and food sector introduced a tool for SMEs to reduce food waste through detailed measures, such as a redesigned menu. The business practice of chain shops on reduction of food waste by data technology, organic food production, alternative coffee planting, empowerment of women and youth to improve sustainable food system were exchanged.

With both panels, the RPAC successfully highlighted environmental issues arisen from food system, raised understandings on linkages between ecosystem restoration and sustainable food consumption and production, and inspired participants to take actions to improve a sustainable food system and a resilient ecosystem which are connected closely and benefit to both the planet and life.

### **Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration**

The dialogue on 'Empowering Youth for Sustainable Production and Consumption and Ecosystem Restoration', as a complimentary to the Celebration of the 2021 World Environment Day, brought together several notable speakers from academia, international organizations, civil society and private sectors to share insights, current status, challenges, opportunities and practices on how to engage and empower youth to restore and protect



programme





ecosystem through sustainable production and consumption as a principle and a systemic tool.

The crucial role of youth in sustainable consumption and production, and how to empower youth to become the change agents were highlighted. The expert panel discussed the importance of sustainable lifestyles and behavior changes, environmental education, sustainable food production and innovative approaches to engage youth for SCP. In this panel, environment education, technology and innovation were highlighted as important aspects to engage youth and mainstream sustainable production and consumption.

Through this webinar, the RPAC successfully highlighted how youth can and should be empowered for sustainable consumption and production, raised understandings on linkages between ecosystem restoration and sustainable consumption and production. The webinar inspired participants to take actions by adopting sustainable lifestyles and systems for resilient food ecosystems.

### Launch of the UN Decade on Ecosystem Restoration

The World Environment Day online celebration in Thailand was proposed as a part of 2021 WED celebration to recognize the launch of the UN Decade on Ecosystem Restoration. Case studies, current status, challenges, opportunities and practices on ecosystem restoration both in Thailand and around the world were shared by 6 notable speakers from private sectors, academics, international organizations and NGOs.

From the panel sessions, ecosystem that has been damaged normally takes long time for recovering and did not always fully bounced back to provide as much service to us as it used to before. Several organizations are collaborating to restore the ecosystem by using technology and innovation, including strengthen network with local partners to improve efficiency and create dynamic in solving the environment issues. Good practices and cases studies on attempt to stop traditional waste cycle where the waste ended up creating environmental issues were presented by the Ocean Cleanup and TerraCycle. With the organization works, waste collected from ocean and canal would be make sure that its optimal material is recycled in a proper way. The session also indicated challenges for ecosystem education due to COVID-19 pandemic. Educators are encouraged to integrate environmental education by bridging the emotional connect, ecological knowledge and the social cohesion together to implement the education on ground.

Through this webinar, the RPAC successfully highlighted environmental issues arisen from human activities and acknowledged participants on ecosystem restoration as well as inspiring them to take actions toward sustainable consumption and production for people to reinvigorate a coalition between humanity and ecosystem which are connected closely and benefit to both the planet and life.

### **Ecosystem restoration In Sustainable Consumption and Production Context**

The dialogue on 'Ecosystem Restoration in the Sustainable Consumption and Production Context' as a complimentary event to the Celebration of the 2021 World Environment Day in Pakistan, brought together several notable speakers from academia, international organizations, civil society and private sectors. The dialogue objective to share insights,







current status, challenges, opportunities and practices on how to restore and protect ecosystem through SCP as a principle and a systematic tool.

The role of society in sustainable consumption and production, and how to engage people were highlighted. The expert panel discussed the importance of traditional values, sustainable lifestyles and behavior changes and, innovative approaches to mainstream SCP. In this panel, technology, innovation, and behavior change were highlighted as important aspects to improve sustainable production and consumption.

Through this dialogue, the RPAC successfully highlighted how ecosystem restoration can be achieved through sustainable consumption and production and enhanced the understanding of linkages between ecosystem restoration and SCP. The webinar inspired participants to take actions to shift towards sustainable lifestyles and systems for a resilient ecosystem that will benefit the triple bottom-line of people, profit and planet.









### Welcome and Opening remarks:

### **Ecosystem Restoration and Sustainable Food Production and Consumption**

#### Welcome remarks By Dr. Mushtag Memon

UNEP Regional Coordinator for Resource Efficiency in Asia & Pacific / Project Manager to the SWITCH-Asia RPAC

Dr. Mushtaq Memon gave welcome remarks. He highlighted the critical role of technology innovation for ecosystem restoration. He said, 'Circular Economy can be key criteria for China and EU to restore ecosystems and thanks EU for supporting the SWITCH-Asia to mainstream the sustainable consumption and production'

**Opening remarks By Ms. Feng Mei** Programme Officer, EU Delegation to China

The event was opened by Ms. Feng Mei. She outlined the Switch-Asia program and highlighted its full alignment with the external dimension of the European Green Deal and of its focus areas. She said, 'Ecosystem restoration and sustainable food production and consumption are cross covered by the EU's Farm to Fork strategy, the Organic Action Plan and the more recent Zero Pollution Action Plan, which play fundamental roles to enable the changes that will lead Europe towards carbon neutrality by 2050'.

Keynote Speech By Mr. ZHU Yongguan Academician of Chinese Academy of Sciences

Soil-Food-Environment-Health Nexus for Sustainable Development was presented as a keynote speech by Mr. ZHU Yongguan. He outlined the intricate linkage from soil, food to human. Consideration of the soil-food-environment-health nexus is required to address food security and Sustainable Development.

Soil is a renewable resource essential for food supply. Soil is also an important sink for atmospheric carbon dioxide (CO<sup>2</sup>) that can contribute to achieving global carbon neutrality. Although the importance of soil is well known, its intricate links to human health and environmental sustainability are poorly appreciated due to a shortage of knowledge on biogeochemical cascades among soil, food, environment, and human health. A healthy ecosystem would rely on healthy soils, which can provide healthy-oriented ecological products and further promote One Health (that is health of people is closely connected to the health of animals and our shared environment). Mr. ZHU stated, 'Soil health is the foundation of food health and human health. Fostering a healthy soil is a nexus approach for high quality development and sustainable life'.





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### Welcome remarks By Dr. Kawal Gill

Associate Professor, Sri Guru Gobind Singh College of Commerce

Dr. Kawal Gill explained the concepts of triple planetary crisis, global ecological footprint, carrying capacity of earth and earth overshoot day to highlight the issues with the current consumption patterns and the importance of sustainable production and consumption patterns. She stated that they are constantly looking for opportunities to promote sustainable development and environment education as well as strengthen the student engagement.

### **Key remarks By Dr. Jatinder Bir Singh** Principal, Sri Guru Gobind Singh College of Commerce

Dr. Jatinder Bir Singh highlighted that environmental education is a core subject at SGGSCC. He said innovation is the only way forward to shift our consumption and production patterns towards sustainability. While education is one part to enable sustainable transition, changing attitudes and values with constant nudging is equally important. He also mentioned that one of the gaps in current curriculum on environment education is that they were not designed with inputs from industry and multinational agencies working on the subject. He asked for active engagement with educational institutions and handholding of faculty and students on developing programmes and hands on practical projects to help students understand the concepts better.

### Opening remarks By Dr. Mushtaq Ahmed Memon

Regional Coordinator Resource Efficiency & SWITCH-Asia RPAC Project Manager, UNEP Asia Pacific Office

Dr Mushtaq Memon emphasized on the key role of youth as present and future agents of change for achieving sustainable consumption and production. He said that every year World Environment celebrations brings a lot of enthusiasm which majorly comes from Youth participation. India has the biggest youth population in Asia and promoting and adopting Sustainable lifestyles will be crucial in enabling Sustainable transition and Sustainable Development of the region. He highlighted the role the European Union through regional programmes such as Switch-Asia in mainstreaming sustainable production and consumption and sustainable lifestyles in the Asia region.







Launch of the UN Decade on Ecosystem Restoration

Remarks By Dr. Eden Y. Woon President of the Asian Institute of Technology (AIT)

Dr. Woon welcomed every participant to the celebration of WED event. He addressed that AIT has been working with sustainability, social impact and environment for a long time. Many academic programs, researches and projects has been pushed forward by the institute to boost sustainable development, sustainability and environment conservation around Asia and beyond. Despite various challenges facing our planet, AIT promised to continue growing deep collaboration with partners in addressing sustainable development and environmental restoration with innovation. Many new academic programs responding to ever-changing social context such as water security were launched, sending the institute to the top 100<sup>th</sup> of the world ranked on education and SDG works. AIT is welcome to working with every stakeholder on scientific research, policy dialogue, joint project and event to amplify the need for action with the public and to protect our environment and nature. Dr. Woon thanked for including AIT as a partner of this WED cerebration event and ensured that AIT will continue to make improvement in their work in sustainability, environmental and social impact innovation. He also believed by joining forces and working closely together, we would be able to protect and restore the world's ecosystem in the decade to come.

**Remarks By Shigeru Aoyagi** Asia-Pacific Regional Director, UNESCO

Mr. Aoyagi addressed that the 'Ecosystem Restoration' theme of this WED requires a mobilisation of science, education and involvement from everyone. For a long time, the expectation of nature has caused ecosystem to be damaged to the degree that they can no longer provide services as they used to. This include ecosystem services for human living such as air, water and the food. Our behaviour is the important cause of various ecosystem has been seriously damaged and it needs the Asian conservative action to repair them. Mr. Aoyagi highlighted that the UNESCO role is based on education for sustainable development and global network. More than 150 biosphere reserves which is a place for natural conservation and sustainable human living implemented by the UNESCO is currently implementing in Asia Pacific. The UNESCO encourages scientists and specialist in environment and science to actively participate in this UN decade. University and academia should also continue to study and find a solution to tackle environment issues.

The messages of the UN decade combined with the UN research papers indicate that human impact is now exceeding ecological capacity of planet earth. Therefore, the ecosystem restoration must become our urgent priority for all stakeholders in global level. The actions to stop natural degradation should be implemented now to reduce number of people who is limited to natural resources and food access due to the natural resources' degradation. The UNESCO will continue to support the restoration projects with the strong commitment of









community and the people in order to conserve the ecosystem that we have and restore what has been lost.

### Remarks By Dr. Dechen Tsering Regional Director for Asia and the Pacific, UNEP

Dr. Tsering reminded us on how natural ecosystem is important to our planet and life as well as how it is protecting us from disease and disaster. But today, this natural foundation is under serious threats from pollution, climate change and unsustainable resources and already effecting the well-being of 3.2 billion people. Therefore, this year WED celebration is officially marked by the UN as ecosystem restoration decade which focus on how we can rethink our relationship with nature, revive what has been destroyed and restore what has been lost. Dr. Tsering highlighted some benefits and successes of restoration actions taken in global and country level across the regions. Thousands of jobs are created from forest restoration in Pakistan. Millions dollar of income for community and the absorption of carbon dioxide emission are benefits of mangrove and wetland restoration in Thailand. Dr. Tsering addressed that this UN decade provided us structure and network to work together to achieve meaningful mission. However, the ecosystem restoration is not a task for only one country. We need everyone to pull together as a community and country to create impact movement for restoring the ecosystem. The UNEP will continue to support every country on their efforts.

### Remarks By Takayuki Hagiwara Regional Programme Leader, FAO-RAP

Mr. Hagiwara highlighted that this year is the launch of the UN decade for ecosystem restoration jointly leaded by FAO and UNEP. This restoration decade aims to prevent, hold and reverse the degradation of ecosystem in every continent and ocean. This gives us an excellent opportunity to meet several SDGs we needed to achieve in this decade, including ending poverty, conserving biodiversity and many more. The UN decade will help to raise awareness, build capacity and refigure ground-level effort at all ranges of stakeholder. This restoration decade also special to FAO as it helps to meet its strategic objective to have a better world in terms of environment, nutrition, protection and life.

Mr. Hagiwara indicated that food security cannot be ensured if ecosystem degradation continue at this current state. Key ecosystem that delivered services essential to food and agriculture are declining. Hence, it is very important to reemphasize the needs to meet the restoration challenge which aims to restore the degraded ecosystem. For instant, FAO is currently implementing regional project to support the scaling up of forest and landscape restoration according to framework provided by the Asia Pacific forest commission. As more than 60% of the region forest remain secondary and many farmlands continue to remain unproductive, stopping and reversing land degradation remains a key priority in this region. Although green and blue restoration effort are already happening in Asia, we need stronger and more sustain collaboration to translate the concept and field practice of this decade action. Mr. Hagiwara encouraged everyone to work together and make the restoration decade a massive regional movement with great success.







### Remarks By H.E. Pirkka Taipiola

Ambassador of the European Union to the Kingdom of Thailand

Although the COVID-19 pandemic forced us to stay apart, it also provides us an opportunity to built back better the planet that we have been damaging. H.E. Taipiola suggested that the post COVID-19 economic recovery should promote social sustainability and justice and climate. The EU together with its member states reconfirm their commitment through collaboration of EU green deal which focuses on green digital and resilience recovering. The green deal became a new road strategy of the EU to support a transition and apply more neutral and sustainable economy through circular economy. The EU is committed to support partners around the world in setting global standard together. Our works under this year theme 'Generation restoration' fits perfectly with the third pillar of the EU green deal which emphasis on reserving and restoring ecosystem as well as biodiversity. H.E. Taipiola addressed that restoring natural ecosystem will helps solve the biodiversity crisis, tackle climate change and reduce the risk of future pandemic. It will also stimulate recovery of post-pandemic world by creating jobs and sustainable growth.

H.E. Taipiola highlighted essential and benefit of biodiversity and healthy ecosystem to our well-being. The economic and social cost has been proved to be huge, even be bigger cost for future action when no action is done. He indicated that by promoting environmentally food system and supporting the uptake of sustainable consumption and production will contribute to the best relationship between people and the planet. Strong business cases to stop biodiversity loss and ecosystem collapse such as restoring mangrove ecosystem or cleaning up marine and cannels in Bangkok were initiative implemented by the royal Thai government and the kingdom with the support of EU and the broader international commitment. The EU will continue to support the kingdom and working together for the well-being of our planet.

### Remarks

### By Dr. Dindo Campilan

Asia Regional Director and Oceania Hub Director, IUCN

IUCN is a global organization providing scientific opinions, tools and frameworks to the UN ecosystem restoration decade. Dr. Campilan addressed that IUCN experts are working on developing scientific foundation to guide implementation restoration activities. Moreover, the IUCN is developing a risk assessment and restoration tools connected to the red list of ecosystems and looking forward to expanding its work to other ecosystems. The IUCN has been taking the lead in forest and landscape restoration in Asia Pacific region where the forest is pressured to provide income, food and water. Dr. Campilan highlighted that the IUCN is proud to put the latest science innovation knowledge into practice and helping to restore forest, river and wetland and bring ocean back to life. He indicated that partnership is a very important aspect and strategy in addressing the environmental and sustainability issues being faced the world today. The IUCN is currently working with many stakeholders around the world to accomplish this restoration mission, starting from government to local community. In Thailand, the IUCN collaborates with the ministry of natural resources and environment and many partners to launch Bio-Diversity Network Alliance (B-DNA) which is a public-private sector platform addressing today's environmental concern in the country and the region. Dr.







Campilan underlined that the IUCN is looking forward to working with everyone on this WED to approach the ecosystem restoration decade.

### Remarks By Dr. Rawin Raviwongse President of National Science Museum Thailand (NSM)

For years, our activities have consumed large amount of natural resources and caused direct impacts to environment which lead to ecosystem degradation. Dr. Raviwongse addressed that this is the time we join hand in restoration our beloved and only ecosystem so the next generation could have a better environment they deserved. The NSM has committed to raise the awareness of environmental issues and built a strong positive attitude to the society through the power of science. The latest museum of the NSM, the Rama IX museum, has send a strong message to the public on the important of the ecosystem to the living of the mankind. Its exhibition, activities and education programs were developed with rich content to give visitor first-hand experiences and inspiration on natures and ecosystem. Dr. Raviwongse stated that the NSM has been working together with many partners for the efficient of general public education, inspiration and motivation, especially among young people. The public would be notified how much they connected and relayed on the environment and how important the healthy environment is on their life and future. The success of the plastic initiative awareness raising event and the mangrove restoration program implemented by the NSM and UNESCO showed that working together can deliver a big impact. The NSM hope that the power of networking will continue and get stronger and stronger for our ecosystem restoration mission.

### Remarks By H.E. Varawut Silpa-archa Minister of Natural Resources and Environment, Thailand

Although COVID-19 pandemic continues to swipe across the planet and impact millions of people, it also resulted in immediate and visible positive environmental impact i.e. cleaner air and water and rebounded wild marine animals. H.E. Silpa-archa addressed that we should turn this pandemic into inspiration to stop our unsustainable development pathway and revive our ecosystem. As this WED theme is "reimagine, recreate and restore", he encouraged everyone to reimagine that after the pandemic we would be able to recreate a world of clean air and water and restore our healthy forest and ocean again. This UN decade on 'Ecosystem restoration' is a good opportunity for our everyone in global community to play their part in moving from exploiting nature to healing it.

For Thailand, the future of the country is reimagined through its long-term national strategy which aims to achieve SDGs along with economic restoration. Several meaningful measures as well as projects to recreate and restore the ecosystem were implemented by public sectors e.g. the Bio-Circular Green economy model (BCG), revise and new formulate acts, forest recreation and restoration projects initiated by king Rama10, annual close down of national park. The MoNRE also cooperate with private sectors to find solution for highly increase amount of plastic waste during COVID-19 pandemic. Moreover, smart operation system and smart machine technology are introduced by the ministry to enhance ecosystem restoration is not only a global undertaking at a massive scale, but it also includes many small actions







everyone can take every day. He promised that the Thai government will give full cooperation with all stakeholders to bring back our healthy ecosystem which would enhance people livelihood, counter climate change and stop the collapse of biodiversity.

**Ecosystem restoration In Sustainable Consumption and Production Context** 

Welcome and opening remarks By Dr. Abid Suleri Executive Director - SDPI

Dr. Suleri stated that economic prosperity is being achieved at the expense of the environment. He highlighted that rapid environmental degradation occurs as a result of anthropogenic activities with overall consumption continues to increase at a rate of 1.6 times more than the rate at which natural resources are replenished. As a result, there is a need for ecosystem restoration which can be achieved through behaviors focused on sustainable production and consumption that ensure optimum use of resources available to us. He emphasized on how we, as individuals and communities, need to take on more responsibility and develop ownership to collectively take action towards improving the environment that future generations are destined to inherit. Keeping in mind the disruptions caused by the COVID-19 pandemic, Dr. Suleri made parallels of how our planet is on the verge of facing a similar crisis if we are not careful. Whilst South Asia is culturally and religiously diverse, the message of respecting nature's balance and living in harmony with nature is common amongst all modern religions in the region.









## **Panel sessions:**

### **Ecosystem Restoration and Sustainable Food Production and Consumption**

 Panel I: Reimaging and Restoring Ecosystem by Sustainable Food Production and Consumption – Experts' Insight
 By Ms. FU Xiaotian, World Resource Institutes (China Office) Mr. DONT Le, FAO Representation in China Mr. LIU Gang, Professor, University of Southern Denmark Mr. WU Zidan, Professor, Jilin University / Former Vice President, State Administration of Grain Mr. DONG Zhanfeng, Environmental Planning Institute, Ministry of Ecology and Environment Ms. LIU Xiaojie, Associate Professor, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences Ms. WANG Qing, Programme Analyst, UN Women in China

# Topic 1: What are the current situation and major challenges of sustainable food production and consumption, and what are the impacts on the environment and the ecosystems?

Ms. FU Xiaotian, World Resource Institutes (China Office)

Globally, one-third of greenhouse gas emissions and more than 50% of biodiversity loss are closely related to the food system. Agricultural uses a lot of water resources and pollutes water. Sustainable food production and consumption provides an opportunity to mainstream climate actions and environmental protection through a systematic food system change, including increasing agricultural production efficiency with advanced technologies, developing green and climate resilience and smart agricultural technologies, reducing food waste based on target-measure-action methodology, as well as green financing.

Mr. DONT Le, FAO Representation in China

The food loss report issued by FAO in 2019 indicated food loss from post harvest to before sales not including the sales section, account for around 13.8% in the global food production. FAO has developed a series of tools for the agricultural value industry chain to calculate the carbon neutrality for the agricultural investment project before it is approved. FAO's new strategic framework from 2021 to 2030 proposes four focuses in agriculture and food system in the next ten years: better production, better nutrition, and better environment and better life.

Topic 2: How to understand the connections between farmland ecosystem and circular economy? What are the current situation of resource efficiency and circularity during food production/farming process, consumption and post-consumption, and their impacts on ecosystems?

Mr. LIU Gang, Professor, University of Southern Denmark

Circular economy strategies can be adopted to reduce the impact on the ecosystem and environment at each stage of food life cycle, from farmland production to the whole consumption and to the post-consumption stage. Prof. LIU illustrated the connections between ecological impact and resource efficiency during food production, consumption and post-







consumption phases with case studies on cattle production and consumption system in Germany. A systematic solution is needed to reduce the negative environmental impact throughout the food production and consumption system, including the production technology, cold chain and storage technology, and consumer behavior change. He highlighted that greenhouse emissions would be greatly reduced through technology-based food production and agriculture, such as technologies to improve feed formula.

Mr. WU Zidan, Professor, Jilin University / Former Vice President, State Administration of Grain

Prof. WU briefed the status on grain production, distribution and challenges faced in China. Degradation of arable land, water shortage, heavy metal pollution, pesticide residue chemical pollution and fungal pollution are the main challenges faced by food production. Grain loss due to farmers' improper storage, excessive processing, and wasted food from table, exceeds 35 billion kg each year. Prof. WU highlighted the aged grain and grain loss in storage system have been drastically reduced in past 20 years in China through technology innovation applied in grain storage system.

# Topic 3: How to understand the connections between farmland ecosystem and food consumption, and how do food consumption and reducing food waste contribute to ecosystems?

Mr. DONG Zhanfeng, Environmental Planning Institute, Ministry of Ecology and Environment (MEE)

Food waste including wasted food from catering is not only a waste of food resources and economic loss, but also a waste of land resources and cost of environmental pollution management. It also increases ecological footprint and greenhouse gas emissions. In order to minimize resource consumption and improve recycling, a closed resource loop needs to be established during the entire food life cycle from farm to table, and the subsequent treatment of food waste, which will allow waste go back to the farm and will be the direction of modern agriculture. The innovative technology and policy support are needed for the circular economy development in food system.

Ms. LIU Xiaojie, Associate Professor, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

Ms. LIU outlined the problems and challenges on food consumption in China. The main problems on food consumption include malnutrition, excess energy, and insufficient nutrition, caused by the solidified eating habits, the prevalence of fast food, and improper consumption behavior. For example, the serious food loss caused by over-processing are due to the over pursuit of whiteness and brightness for rice and noodles. The potential on energy saving and greenhouse gas emissions for food system are still very large.

# Topic 4: What are the roles of women in sustainable food consumption and production, and how to empower rural women for transformation to a sustainable food system and resilient ecosystems?

Ms. WANG Qing, Programme Analyst, UN Women in China

The Women's Rights Assessment Report released by the UN Women in 2020 shows that, 39% of all female laborers work in agriculture, forestry and fishery. These women are very vulnerable to climate change impact and related catastrophe due to lack of various support.





In China, 70% of the current labor force engaged in agricultural production is women. Ms. WANG gave an example from Qinghai province on women farmers' practices on sustainable agriculture which is beneficial to both ecosystems and family economy.

Qiaotou village, in the Liupan mountain area of Qinghai province, began to plant a greater variety of key crops and vegetables which could be sold nearby and avoid any problems related to shipping and delivery, during the pandemic. They also began to rear pigs, sheep and chickens. This combination of planting and breeding allowed to set up a fully organic, zero-waste circular system: animal manure becomes fertilizer, while unused produce, such as maize straw, becomes animal feed. This new practice has brought women farmers and their families out of poverty. Finally, Ms. WANG called for women's empowerment especially in the transformation to a sustainable food consumption and production system through skill trainings, financial support and policy support to rural women.

Panel II: Cases sharing on sustainable food production and consumption contributing to resilient ecosystems

 By Mr. DING Wenguang, professor, School of Resources and Environment, Lanzhou University
 Ms. ZHANG Tingting, co-founder and vice president, Organic and Beyond Corporation (OABC)
 Ms. YU Xin, SWITCH-Asia GRANT on reducing food waste in China, WWF
 Mr. JIANG Ning, Beijing Convenience Bee Chain Business co. Itd.
 Ms. ZHANG Chenyang, Bon Café+: A Pilot Cafe Program
 Ms. MA Yunxiao, Student Green Association, Tsinghua University
 Mr. OUYANG Huiyu, Youth Chair of UNFSS-ActionTrack2 China Action Hub

# Topic 1: Sustainable food production - traditional nomadic husbandry and organic agriculture

Mr. DING Wenguang, professor, School of Resources and Environment, Lanzhou University

Nomadic culture is the key to Qilian Mountain National Park, which was established in Gansu Province in 2017. There are three important rivers, Shiyang River, Shule River, and Heihe River, which irrigate more than 700,000 hectares of farmland, more than 8 million hectares of grassland and 1.1 million hectares of woodland. Qilian Mountain National Park produce very good quality of organic food, such as meat, plant and milk, based on the nomadic culture. Mr. DING mentioned that, the current grassland fences prevent the migration routes of many wild animals, causing harm and death to wild animals. The setting of no-grazing area causes the interruption and destruction of the food chain and destroys the grassland ecosystems. He highlighted that, in order to restore the grassland ecosystem, we should inherit our precious nomadic culture, which is a key element of the grassland restoration system in Qilian Mountain National Park.

Ms. ZHANG Tingting, co-founder, Organic and Beyond Corporation (OABC)

OABC, founded in 2007, is an organic food company engaging in the cultivation, production, distribution and home delivery service of organic food. Ms. ZHANG explained the contributions of organic farming to soil ecosystems and environment. Organic farming, including crop rotation, have a very obvious ecological value varying from nature-based restoration of soil ecosystem to biodiversity protection. For example, the population of bees will increase in







organic farming areas, returning maize straw to farmland and using animal manure as fertilizer can increase soil organic matter content effectively.

### Topic 2: Sustainable food consumption - business practices that reduce food waste

Ms. YU Xin, SWITCH-Asia GRANT on reducing food waste in China, WWF

Ms. YU introduced a case study – five restaurants in Zhejiang province prevented and reduced food waste a lot through food waste classification and measurement before and after meals, improved display method of food, menu design and other intervention methods as a pilot project conducted in 2018 to 2019.

SWITCH-Asia Grant project on Pride on Our Plates - Strengthening China's SMEs through proven food waste solutions and behavioural insights is being implemented. With aims to catalyze the prevention, reduction and diversion of food waste among SMEs in China's hospitality sector, this project will develop a series of guidelines to support 100 SMEs to apply Sustainable Consumption and Production Practices, and reduce food waste by 10% of the 50 SMEs in the hospitality and food services sector in China.

Mr. JIANG Ning, Beijing Convenience Bee Chain Business co. Itd

Convenience Bee Chain Business operated more than 2,000 stores in 20 cities in China. Mr. JIANG introduced a series of data technology based solutions practiced in Convenience Bee Chain stores for an improved supply chain management, fast cooling and refrigerated storage, logistics, and promotion of food near the expiration date, which can not only increase economic profit, but prevent food waste. For example, when a food, such as a sandwich, is approaching the optimal eating period, and the remaining quantity is large and it is already at night, the central brain will automatically trigger the electronic price tag to adjust to a promotion price without manual decision-making.

# Topic 3: Empowering women and youth in sustainable food production and consumption

### Ms. ZHANG Chenyang, Bon Café+: A Pilot Cafe Program

Ms. ZHANG, a reporter and producer in Phoenix TV Longxing World Program, operates a coffee starts-up with her team, offering alternative coffee beans from Myanmar with environmental protection and fair trade principles, skill trainings on coffee bean roasting for local women, sales and marketing in China. The alternative coffee planting is to use other cash crops to replace poppy planting in the Golden Triangle of Myanmar, including sugar cane, rubber and coffee beans. The objective is to help the establishment of a complete coffee industry chain for local and alternative coffee planting in Myanmar, while introducing the concepts and principles of organic farming, environmental protection and fair trade.

Ms. MA Yunxiao, Student Green Association, Tsinghua University

Ms. MA introduced a survey on food waste conducted in Tsinghua Campus and got a few interesting findings as follows, 1) the amount of food waste even in campus is big. In the survey, it is found that students in campus generate average 1.02 kg of garbage per day, among which around 50% is food waste, and 2) the delicious food in the canteen can reduce amount of food waste. In the survey, it was also found that the faculty canteen has a higher rate of 'clearing plate' than the student canteen, mainly because the food in the faculty canteen is better. 3) The food waste can be reduced if small portions or half dishes are provided for students. 4) Shortening transportation distance of cold chain can reduce food loss and waste.







Mr. OUYANG Huiyu, Youth Chair of UNFSS - ActionTrack2 China Action Hub

Mr. OUYANG introduced the global initiative Youth Act 4 Food in support of Food Systems Summit 2021 and under its Action Track 2, launched in May 2021 he joined and is working for. The Summit's Action Tracks offer stakeholders a space to share and learn, with a view to fostering new actions and partnerships and amplifying existing initiatives. He also shared a small-size research project he initiated and implemented in campus, which proposed to have a school-level sustainable food policy to provide healthy and tasty low-carbon food options for students. He highlighted the important roles of youth in the transition of sustainable food consumption and production as young generation would be heavily affected by today's unsustainable food system.

Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration

Environment Education & Sustainable Lifestyles By Ms. Gayatri Raghwa Consultant UNEP, Environment Education

Ms. Raghava stated that youth are the change agents – they set the trends. Youth today are very responsive and aware of environmental impacts of their actions. If we get sufficient number of youths engaged and involved in field of environment and sustainability, the world can change very fast for better. She shared that in order to make a campus sustainable, it requires incorporating sustainability in its curriculum and operation, and even in terms of its thinking and perception. Hence, a sustainability framework is needed. UNEP is looking to establish an India green university network to enable experience sharing and bring about collective action.

Presentation on Green Nudges By Dr. Gurminder Kaur Associate Professor, Sri Guru Gobind Singh College of Commerce

Dr. Gurminder Kaur delivered a presentation on the Green Nudges project taken up by SGGSCC as a pilot campus for UNEP Green Nudges initiatives. She stated that gentle persuasions and nudges make Gen-next ready of change and lead to a more sustainable behavior. She showcased the efforts being undertaken by the college to green its operations including use of solar energy, solid waste management amongst others. She also shared experience with the pilot project on Green Nudges to nurturing change by engaging both faculty members and students. Pilot surveys were conducted to understand the existing behavior and plan and measure the behavior change after the project. Reopening of campus will give a big push to this initiative to introduce green nudges in behavior in everyday campus life.

Promoting SCP systems for organic food supply chains in India By Ms. Nivedita Varshneya Project Manager, BhoomiKa

Ms. Varshneya presented the experience with a SWITCH-Asia funded grant project – BhoomiKa which is enabling creation of organic food supply chain in India. She stated that COVID 19 pandemic has brought out the risk from zoonotic diseases and the linkages with







the biodiversity loss. She said that clean, green and fair food can be mainstreamed by changing the mindset of consumers and creating a pull factor. By making the switch to sustainable foods, consumers can change the way farmers produce through demand and supply increasing, better agro-biodiversity and environment conservation promoting. Food should be sustainable, local, seasonal, fresh and also rich in nutrients. Fair pricing for farmers and transparency and traceability for the consumer are important factors to enable sustainable food production. Changing consumer behavior and mindsets through awareness by way of farmer markets, education programmes and workshops would ensure positive change throughout supply chain.

Managing Plastics and Packaging Waste in Food Delivery By Ganesh Kollegal AVP – Govt. Affairs, Swiggy

Mr. Kollegal talked about the challenges with the COVID-19 Pandemic which has had a disruptive impact and the central role that e-commerce platforms such as Swiggy have played in increasing access to essentials during the pandemic. The e-commerce companies have observed a massive increase in orders over the past year. He stated that Swiggy is committed to ensure better management of plastic and packaging waste in food delivery. He mentioned that while plastic food containers cannot be completely and immediately replaced as the alternatives which help to transport food items hygienically and safely are not readily available, other associated single use packaging has been significantly eliminated. It is important to educate consumers that these containers are made of food grade plastic and can be reused at home for storage. It is also critical to clean the food containers before discarding or disposing it to enable effective recycling by preserving its intrinsic value. Individual effort to segregate the waste plays a critical role in waste management.

### Launch of the UN Decade on Ecosystem Restoration

### Restoring coastal and marine habitats following the largest oil spill in history By Friedhelm Krupp

The Jubail Wildlife Sanctuary

The Persian/Arabian Gulf is located on northern extension of tropical Indian Ocean with surrounded deserts. During the 1991 war, oil was used as a weapon and intentionally released into the gulf. The event caused several oil damages in the intertidal zone. i.e. oil inundated around upper intertidal area, animal burrows and vegetation eradicated, ecological balance disruption. The EU together with Saudi Arabia (KSA) responded to the event by implementing project to a research institute and scientist team with 3 key objectives; assess ecological damage, develop environmentally friendly restoration methods and establish marine protected area. Luckily, most area was able to recover within 1-3 years after the oil spill and its visual evidence had largely disappeared in 5 years. Cyanobacterial mat was able to recolonise after only 1 year from the event. It helps to improve biodegradation of hydrocarbons and support oil-degrading bacteria. More than 50% of intertidal vegetation of salt marches is lost and expected to take up to decade to recover. Rocky shores and high-energy sandy beaches lost 50-100% of the intertidal species, but its upper shore was almost fully recovered in 1993. Unlike eradicate eggs and larvae of fishes at the surface, the coral reefs remained healthy after the event since the oil did not sink under normal marine condition. Turtles nesting was back to normal level within 1 year after the oil spill despite some of turtles got kill at the event. However, the wintering seabirds received mor severe impacts. About 30,000 birds died from oil-fouling. National wildlife commission of Saudi Arabia therefore established a wildlife center









to treat the bird in the area of oil spill. Also, the Jubail Marine Wildlife Sanctuary was established at a site most severely affected by the oil spill. With its conservation management, the project aims to reduce pressures and support recovery as well as acknowledging and raising public awareness during and after the oil spill.

Mangrove Restoration: Thailand Case Studies By Siriporn Sriaram Acting Head of Office, IUCN Thailand Programme

More than half of the mangrove was destroyed by human activities within the past 30 years. Thai's government therefore decided to restore the mangrove, but not all mangrove was being able to recover. The latest information in 2021 indicated that today's mangrove is accounted for only 75% of total mangrove in 1960. Land use for human activities is accounted for the major driven of the mangrove loss. Seven success mangrove restoration cases in Thailand implemented by IUCN were addressed for further study of large-scale restoration. Ms. Sriaram provided 2 case studies of restoration done by the IUCN and its partners, mangrove restoration in Krabi province of Thailand and projects collaborated with private sectors.

For Krabi province, the IUCN implemented a program called 'Implement for the future' in 2009 to provide support to community in doing capacity building and restoration. The IUCN worked closely with coastal community in acknowledging important and species of mangrove. Difference restoration techniques were used in each site of the province to provide the best restoration result. Among the success restoration sites, the site using ecological mangrove restoration technique had showed the highest number of species recovered. The IUCN also working directly with private sector such as Marriott company. Their collaboration resulted in a program called 'One dollar per night' which money donated from hotel guest will be donated to the IUCN to fascinate the mangrove restoration. However, there are still some misunderstanding about the mangrove restoration. The IUCN is committed to correct the misunderstanding and will continue to put effort in restoring mangrove ecosystem.

### Cleaning up plastic pollution in rivers and oceans worldwide By Ben Hargraves

Business Development, The Ocean Cleanup

Mr. Hargraves presented a video showing one of Ocean Cleanup work, the legacy cleanup. He addressed mission of the organisation to extract plastic pollution from the ocean and intercept it in rivers before it can reach the ocean. The Ocean Cleanup worked by data driven, collaborative and focused on positive action and real impact rather than money profit. Its strategy consists of cleaning up the legacy and close the tap. To clean up the legacy, the NGO uses sailing ship and aircraft to map plastic waste and its behaviour around the ocean before designing operation. A floating barrier connected to sea anchor would capture and accumulate plastic in the ocean. Once the systems are full, a vessel will come in to remove the collected plastic before sending it on board to transform into product. For its second strategy, the Ocean Cleanup did a field work with local partners to test theory and understand the plastic in order to design the best solution. The interceptor is therefore designed to prevent plastic from entering the world's oceans from rivers. Plastic is moved by the flow of the river along the barrier and goes up to the interceptor to be distributed for further appropriate waste management. All electronics on the Interceptor are solar-powered, so it is operated autonomously. Mr. Hargraves also provides some example of long-term success the Ocean







Cleanup has been working with partners. The organization also committed to continue working with locals to look for total solution to maximize the impact and get as much plastic out before it goes into ocean.

Cleaning up canals in Bangkok By James Scott Executive Director, TerraCycle Thailand

Similar to the Ocean Cleanup, TerraCycle focuses on collecting waste from cannel or river and try to prevent it from going into the ocean. The TerraCycle is specialise in using innovative solution to make the recycled material value higher than cost of its logistics combined with processing, making more product recyclable. Mr. Scott presented recycling process after tons of river waste was collected and processed daily. In the process, the waste is collected and bring to the sorting facility to make sure the optimum material is recycled in a proper way. The highest value plastic, storied plastic, is turned into products that are sold back to consumer as a river waste or ocean waste product which also help funding the program. After that, less valued plastic would be sent to traditional recycling. The degraded material that is left from previous recycling requires innovative recycling process. Lastly, leftover waste is converted into energy for the company such as gas, heat or electricity. However, a few options are left for Thailand due to strict laws enforcement and risk of unproper waste management. The waste in Thailand is processed with energy from waste into ash which is later used for manufacturing building brick. The company also setup a working network with other group and local to utilize strength and create dynamic in solving ocean waste issue. Mr. Scott highlighted that plastic is not only type of waste the company collected. The mixture of waste material creates a challenge for effective recycling. Hence, the real solution for waste recycling is to search for a way to prevent waste creating.

### Role of Science Education towards Ecosystem Restoration By Gayatri Raghwa Executive Director, Wildecologue

An environment education used to be called conservation education or nature study, focusing on ecosystem education. Nowadays, the ecosystem education is transited to education for sustainable development which help raising the level of interest and discoursing on resource consumption and sustainable future. However, it also encouraged more of an anthropocentric approach towards education of the environment. The educational approach is later developed into strongly sustainable model, ecocentric approach. The environment is pictured as a big circle which has social and economic development within its planetary boundaries. Ms. Raghwa stressed that we only have one Earth, so we must learn how to live with it without crossing the planet boundary.

The COVID-19 pandemic led us to the crossroads of our civilization. Its impacts toward children and youth are not only on physical and mental health, but also their learning and playing. The pandemic had shifted education to online platform which widened the gap on learning. This is a challenge for educators to come up with innovative ways to contribute learners towards planet healing. Ms. Raghwa presented examples of initiatives programs that have continued strong despite the COVID challenge in India i.e. Wildecologues program provides a combination of the outdoor and experiential learning, Tide Turner Plastic acknowledge plastic issues through simulation game. Ms. Raghwa addressed that we need









to integrate our environmental education by bridging the emotional connect, ecological knowledge and the social cohesion together to implement the education on ground. Also, she encouraged participants to reflect that will the education plan set ahead help us address climate change and social inequities, restore ecosystem as well as tackle waste and pollution.

### **Ecosystem restoration In Sustainable Consumption and Production Context**

### Demystifying Sustainable Consumption and Production

By Dr. Mushtaq Ahmed Memon

Regional Coordinator Resource Efficiency & SWITCH-Asia RPAC Project Manager, UNEP Asia Pacific Office

Dr. Memon highlighted that the need to facilitate dialogue across the Asian region on SDG 12 reporting has been reinforced during the Global Emergency such as COVID 19. He emphasized on the need for advocacy at regional and sub-regional levels using frameworks from ASEAN and SAARC to develop support for SDG 12. This allows for efficient reporting and monitoring of indicators and allows for roadmaps on sustainable production and consumption to be developed. He said that to increase advocacy around sustainable lifestyles that support environmentally friendly value chains, it is important for people to understand that sustainable production and consumption further empowers people to live better and lighter without compromising on quality of life. In fact, an overall increase in quality of life can be ensured once equity is prioritized through the implementation of policies and taxes. Dr. Memon highlighted that closing the loop at localized levels helps prevent leakages that can cause environmental degradation which in turn breaks the unsustainable production and consumption cycle. He highlighted the role the European Union is playing in mainstreaming sustainable production and consumption in different sectors through regional programmes such as Switch-Asia which offer grants to developing countries and aids in developing SCP systems that provide support at the national level. The SWITCH-Asia RPAC is providing technical assistance and advocacy with regard to sustainable production and consumption practices. In Pakistan, such programs have spearheaded efforts into plastic waste management. He broke down each step of SDG 12 to discuss how governments can work on resource efficiency through public procurement which allows them to have increased leverage into decision making regarding sustainable development.

### Sustainable Lifestyles in South Asia region By Ms. Archana Datta

India SWITCH-Asia RPAC Coordinator, United Nations Environment Programme (UNEP)

Ms Datta said that we need to fundamentally rework our relationship with nature and redesign our societies based on equity within society and harmony with the planet. She commended the UN's Decade for Ecosystem Restoration by saying that it calls for a transformative way of production whilst also changing our individual perspectives and consumption patterns. Ms. Datta highlighted on how the youth has unfortunately inherited the responsibility of preventing further environmental degradation that past generations were not wary of. She emphasized that restoration cannot be achieved without public participation, especially government and individual action. She highlighted how SWITCH-Asia is conducting activities that promote sustainable lifestyles through capacity building programmes. One of the flagship activities she mentioned was the organization of Annual Leadership Academy, which focuses on improving







knowledge and practical understanding on circular economy amongst young professionals. The program focusses on concepts such as the circular economy and mainstreaming sustainable lifestyles through behavioural change. She reinforced the idea that conservation is easier to implement in South-Asian countries as our cultures have always been frugal with our consumption. She reflected on how people would simply repair products in past times to extend product lifespan. She added that there is a growing need to return to our cultural roots and avoid adapting towards western values of consumption.

**Go slow on Fast Fashion By Ms. Afia Salam** Freelance environment and Climate Change Journalist and Development Practitioner

Ms Salaam took a more specialized approach regarding the fast fashion industry by emphasizing the debate around consumption and the factors, rate and processes that determine the extent of it. She said that harmful effluents, generated as a result of an unsustainable production cycle, are now better controlled using effective management systems. However, it is imperative to understand that significant improvements cannot be implemented without a simultaneous decrease in consumption. Ms. Salaam stressed for a change in overall mentality regarding wasteful practises that stem from domains of 'want' as opposed to domains of 'need'. She highlighted that such change can only come from advocating for behavioural change and that the burden for reduction shouldn't only be placed on the producers. She expressed that whilst implementation of green processes and methods are important at the production level, the overall drive to make fast fashion sustainable can only be accomplished if the concept of reducing waste is allowed to seep down into human and societal psyche. Ms. Salaam further talked about how societal constructs and stigma around "repetition of wardrobe" has led to increase in textile waste. She agreed that while we need to inform our children and grandchildren of more sustainable methods of consumption, it is also important to reflect on our ancestral teachings when determining where to draw the line between wants and needs. Recycling clothing items is relatively easier in countries such as Pakistan and India where large segments of society exist that are open to accepting "hand me downs". She added that this can ultimately reduce the resource pressures that occur due to an inability to match the need for renewing products before their lifespan runs out.

# Sustainable Consumption and Production in a post Covid-19 world By Ms. Bharati Chaturvedi

Founder & Director, Chintan Environmental Research & Action Group

COVID-19 showed a mirror to the unsustainable consumption aspects of our lives by exposing our ever-changing consumption levels. However, it also allowed us to reassess how a collective global effort can contribute towards restoring ecosystems. Climate change, coupled with the COVID-19 pandemic, has exacerbated the living conditions of poverty-stricken communities and the pathway forward needs to be centered around sustainable and equitable consumption. As economies recover from the pandemic, a debate has begun around how we should 'build back green', she said. One example of this is Germany investing significantly to reduce their energy consumption and greenhouse gas emissions. She added that countries like ours have to investigate consumption and production in a more fundamental way as implementing policy change is more complex due to the lack of pre-established development







pathways that most developed economies exhibit. She highlighted that South-Asian countries are in the process of poverty alleviation, which is why equity should be at the core of our consumption. As a result, there is a need to prioritize already marginalized populations that are most vulnerable to climate change when planning and implementing environmental policies. She emphasized the need for South Asian countries to function as shared economies and how community building is very critical to the process. She gave the example of Pakistan's robust, middle-class urban communities which effectively share surplus. A 'green building back' community is vital to the foundation of a circular economy, and one cannot expect communities to expand if concepts of sharing and repairing are not prioritized, she further added. Ms. Chaturvedi talked about how professions in repair economies are shrinking over a generational period due to lack of monetary and incentive growth and respect associated with these professions. People working in repair economies extend the lifecycles of our materials and products we use every day and enabling them is a critical process in policy and planning to incorporate in national development plans. As a result, there is a need for shift in policy and practice. Ms. Chaturvedi pointed out that there is a need to completely reassess the way we think about fashion and incorporate it into the circular economy. She highlighted that this could prove extremely difficult to achieve as it requires a large-scale movement that shifts mindsets from a linear economy towards a circular economy. She concluded her argument by stressing on three points: focussing on equity and how sustainable production and consumption subsequently leads to more jobs, acknowledging the need to transform mindsets and how we should plan to keep these challenges in mind.

Plastic Pollution: Is Circular Economy the magic bullet? By Mr. Dharmesh Shah Public Policy Analyst, Advisor to BFFP and GAIA

Mr. Shah through his presentation, talked about the issue of extensive plastic pollution and whether the concept of circular economy can ultimately work to resolve it. He shared that overconsumption and waste is one of the biggest issues we currently face as a civilization. He added that waste in modern time has become a symptom of a system in crisis. Shah shared that the concept of circular economy is premised on reused cascades, long-lasting cycles through more durable products, and closing the whole loop to maintain the pure flow of resources. Whilst the concept of circular economy is centered around a self-sustaining system mimicking nature, its ability to do so remains largely debatable. As a policy analyst, Shah said he is skeptical of certain aspects of the circular economy concept and scrutinizes certain policy ideas when compared to ground realities in South Asia. He stressed that the idea of a circular economy that is based on economic growth coexisting with environmental sustainability has limited prospects. Rebound effects, such as lower per unit production costs ultimately increasing overall consumption, are likely to occur and hence reduce majority of the benefits that the concept of a circular economy has to offer. Another point he laid emphasis on is the normalized use of complex materials that cannot be easily recycled. A considerable segment of all resources is neither recycled, nor incinerated nor dumped. This tells us that as long as we are accumulating resources there is no way to effectively close the cycle. He said that there is a desperate need for downcycling as recycling our way out of this crisis is not as simple or achievable as it was once deemed. Shah suggested, that if the current trajectories were to continue then the overall situation for mankind will prove to be extremely dire by the







end of this decade. He talked about anthropogenic metabolism and how currently less than 25% of all raw materials are converted into long-lasting products and even more worryingly, less than 10% is recycled back into the economy.

He further stated that consumption by the global economy is destined to double, and the extraction of mineral resources is expected to quadruple by 2060. There is an overall excess of input as opposed to output which has caused the use of resources to skyrocket by 1400% in the last century only, with an average increase of 3% per year. He ended his presentation by making a very thought-provoking claim that if a tub is overflowing, the only viable solution is to turn the tap off entirely. The idea of a circular economy makes some sense if we simultaneously work on contracting the overall circle itself. However, unfortunately, it cannot co-exist with unlimited growth.







### **Ecosystem Restoration and Sustainable Food Production and Consumption**

### Conclusion

Ms. FENG Mei, Programme Officer, EU Delegation to China, acknowledged the dialogue and discussion are very consistent with the theme of World Environment Day this year – Ecosystem Restoration, and basically cover every different angle of the food systems. She appreciated every speaker for their insights in the industry and a lot of ideas and thoughts shared and thanked organizing team for their contributions for the smooth holding of the dialogue.

Ms. WANG Qian, Programme Management Officer, UNEP China Office finally concluded, 'food health is an issue of common concern to government agencies, academics as well as the general public. Sustainable food consumption and production would contribute to climate change actions, carbon neutrality, soil and water resources protection and ecosystem restoration'.

### **Ecosystem restoration In Sustainable Consumption and Production Context**

Special Remarks By Ms. Romina Khurshid Alam Member, National Assembly of Pakistan

Ms. Alam pointed out how the entire South-Asian region shares common problems and should work in a collaborative manner to understand the environmental challenges in developing countries like India, Pakistan, and Bangladesh. She added that western development and conservation pathways are not fundamentally catered to resolving issues in the South-Asian context. She spoke of how the pandemic taught us all a lesson of reassessing our own footprints with regards to the environment and mother nature. She further added how the whole planet and its processes are connected to us and how the pandemic acted as an environmental break for the world to recover from the harmful effects of anthropogenic activities. Ms. Alam emphasized the need to develop concepts focusing on ecosystem restoration through sustainable production and consumptions amongst future generations to prevent the planet from further environmental degradation. She highlighted the need to engage academia and promote collaboration with schools to develop environmental protection concepts from a young age. She ended her dialogue on an uplifting note by labeling the panelists and speakers as fighters and soldiers for mother nature as every individual, despite having different approaches, is working towards a common goal to save the planet!







## **Highlights of discussions:**

The expert panel in **China** actively discussed linkages and importance of ecosystem restoration and sustainable food consumption and production. In response to current environmental issues such as biodiversity loss or climate change, smart agricultural technologies were brought in to greening agricultural industry. Circular economy approach is used to reduce the impact on the ecosystem and environment at each stage of food life cycle. CE technology and policy support would help reducing food waste issue which caused inefficient resources used and environmental issues. In China, 70% of the current labor force engaged in agricultural production is women. Therefore, providing skill trainings and financial and policy support to the women would help in transforming to a sustainable food consumption and production system.

The dialogue in **India** highlighted the crucial role of youth in SCP and how to empower youth to become the change agents. Since youth today are well aware of their actions impacts to environment, involving sufficient number of them to engage in sustainability and environment field could speed up the transition process. The Green Nudges project is a pilot project to encourage a more sustainable behavior in next generation. A SWITCH-Asia funded grant project, BhoomiKa, aims to create organic food supply chain in India to ensure fair pricing for farmers and transparency and traceability for the consumer with a purpose of enabling sustainable food production. Also, the youth was educated a proper way to reuse, discard and dispose plastic and food packaging waste.

The panel sessions of webinar in **Thailand** focused on the UN decade theme, 'Ecosystem Restoration'. According to case studies of ecosystem restoration from 1991 gulf war oil spill and mangrove in Thailand, the main cause of the ecosystem destructions was from human activities. Many organizations from around the world are collaborating in implementing their innovations and technologies to help restore the lost ecosystem and raise awareness of environmental issue. The panelist from the Ocean Cleanup and Terra Cycle presented their efforts to prevent waste from going into ocean by using innovative technology to collect waste from river and canals for recycling and bringing in local as a part of their project to create dynamic change. The webinar also highlighted that it is important for science education to educate people about how to live with our Earth without crossing the planet boundary.

The dialogue in **Pakistan** addressed role of society and how to engage people in SCP. Understanding SCP concept will help closing the loop at localized levels to prevent environmental degradation. Conservation is easier natural maintenance action to implement in South-Asian countries as our cultures have always been frugal with our consumption. It is important for society to be aware of waste reducing concept and differentiate between wants and need to make fast fashion sustainable. After COVID-19 pandemic, Asian countries requires a large-scale movement that shifts mindsets from a linear economy towards a circular economy to achieve 'green building back' community. Moreover, society must change their consumption pattern by stop accumulating resources to effectively close the environment issue cycle.







### **Evaluation/Assessment results:**

WED events were delivered in both hybrid and online modes as open events with the purpose of reaching out to the maximum public participation. The organizers did not conduct evaluation or assessment in details, instead encouraged participants provide comments in chat box during the events. Some feedbacks were received after the events indicating interests in webinars on similar topics, and interactive sessions that views can be shared directly.









### **Annexes:**

Annex 1: The Final Agenda

### Ecosystem Restoration and Sustainable Food Production and Consumption

### Date: Thursday 3 June 2021

Time (GMT)	Theme
1400-1410	Opening Session
	Moderated by Ms. WANG Qian, Programme Management Officer,
	UNEP China Office
	Welcome Remarks
	Dr. Mushtaq Ahmed Memon, Regional Coordinator for Resource
	Efficiency, UNEP Regional Office for Asia and the Pacific,
	SWITCH-Asia RPAC Project Manager
	Opening Remarks
	Ms. FENG Mei, Programme Officer, EU Delegation to China
1410-1430	Keynote Speech
	Soil-Food-Environment-Health Nexus for Sustainable
	Development
	Mr. ZHU Yongguan, Academician of Chinese Academy of
	Sciences
1430-1530	Panel I: Reimaging and Restoring Ecosystem by Sustainable
	Food Production and Consumption – Experts' Insight
	Topics:
	What are the current situation and major challenges of
	sustainable food production and consumption, and what are
	the impacts on the environment and the ecosystems?
	How to understand the connections between farmland
	ecosystem and circular economy? What are the current
	situation of resource efficiency and circularity during food
	production/farming process, consumption and post-
	consumption, and their impacts on ecosystems?
	How to understand the connections between farmland
	ecosystem and food consumption, and how do food
	consumption and reducing food waste contribute to
	ecosystems?
	What are the roles of women in sustainable food consumption
	and production, and how to empower rural women for
	transformation to a sustainable food system and resilient
	ecosystems?
	Panelist:
	<ul> <li>Ms. FU Xiaotian, World Resource Institutes (China Office)</li> </ul>
	Mr. DONT Le, FAO Representation in China
	<ul> <li>Mr. LIU Gang, Professor, University of Southern Denmark</li> </ul>
	<ul> <li>Mr. WU Zidan, Professor, Jilin University / Former Vice</li> </ul>
	President, State Administration of Grain





	Ministry of Ecology and Environment
	- Ms. LIU Xiaojie, Associate Professor, Institute of Geographic
	Sciences and Natural Resources Research. Chinese
	Academy of Sciences
	Ms. WANG Qing, Programme Analyst, UN Women in China
	Moderator: Ms. ZHENG Lixia, SWITCH-Asia RPAC National
	Coordinator for China UNEP China Office
	<b>O &amp; A</b> among panel speakers (15 minutes)
1525-1620	<b>Banal II:</b> Cases sharing on sustainable food production and
1323-1020	consumption contributing to resilient access stoms
	Topics:
	- Sustainable feed production traditional normadia husbandru
	sustainable tood production - traditional homadic husbandry
	- Sustainable feed concurrentian - business practices that
	Sustainable food consumption - business practices that
	Frequee 1000 waste
	Empowering women and youth in sustainable rood production
	and consumption
	Panelist:
	Mr. DING Wenguang, professor, School of Resources and
	Environment, Lanznou University
	Ms. ZHANG Tingting, co-founder and vice president, Organic
	and Beyond Corporation (OABC)
	Mis. YU Xin, SWITCH-Asia GRANT on reducing food waste in
	Mr. JIANG Ning, Beijing Convenience Bee Chain Business
	co. ltd.
	<ul> <li>Ms. ZHANG Chenyang, Bon Café+: A Pilot Cafe Program</li> </ul>
	<ul> <li>Ms. MA Yunxiao, Student Green Association, Tsinghua</li> </ul>
	University
	Mr. OUYANG Huiyu, Youth Chair of UNFSS-ActionTrack2
	China Action Hub
	Moderator: Ms. FENG Mei, Programme Officer, EU Delegation to
	China
	<b>Q &amp; A</b> among panel speakers (15 minutes)
1620-1635	Join #GenerationRestoration:
	One sentence or one key word shared by each speaker to call for
	actions and behavior change on sustainable food production and
	consumption for resilient ecosystems.
1635-1640	Conclusion
	Ms. FENG Mei, Programme Officer, EU Delegation to China
	Ms. WANG Qian, Programme Management Officer, UNEP China
	Office
1640	Group Photo



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Mr. DONG Zhanfeng, Environmental Planning Institute,

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REGIONAL POLICY ADVOCACY



Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration

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Funded by the European Union

Date: Thursday 3 June 2021

Time (GMT)	Theme
1100 – 1105	Welcome Remarks
	Dr. Kawal Gill
	Associate Professor, Sri Guru Gobind Singh College of Commerce
1105 - 1110	Key Remarks
	Dr. Jatinder Bir Singh
	Principal, Sri Guru Gobind Singh College of Commerce
1110 – 1115	Opening Remarks
	Dr. Mushtaq Memon
	Regional Coordinator for Resource Efficiency- UNEP ROAP, Project Manager
	- SWITCH-Asia RPAC
1115 – 1120	Environment Education and Sustainable Lifestyles
	Ms. Gayatri Raghwa
	Consultant UNEP, Environment Education
1120 – 1130	Presentation on Green Nudges
	Dr. Gurminder Kaur
	Associate Professor, Sri Guru Gobind Singh College of Commerce
1130 – 1140	Promoting SCP systems for organic food supply chains in India
	Ms. Nivedita Varshneya
	Project Manager, Bhoomika
1140 – 1150	Managing Plastics and Packaging Waste in Food Delivery
	Ganesh Kollegal
	AVP – Govt. Affairs, Swiggy
1150 – 1200	Q/A & Closing
	Moderated by Archana Datta
	SWITCH-Asia RPAC Project Coordinator for India, UNEP









Launch of the UN Decade on Ecosystem Restoration

### Date: Friday 4 June 2021

Time (IST)	Theme
1315-1350	
1330-1405	Remarks
	Dr. Eden f. woon
	President of the Asian Institute of Technology (ATT)
	Snigeru Aoyagi
	Asia-Pacific Regional Director, UNESCO
	Dr. Dechen Tsering
	Regional Director for Asia and the Pacific, UNEP
	Takayuki Hagiwara
	Regional Programme Leader, FAO-RAP
	Ambassador of the European Union to the Kingdom of Thailand
	Dr. Dindo Campilan
	Asia Regional Director and Oceania Hub Director, IUCN
	Dr. Rawin Raviwongse
	President of National Science Museum Thailand (NSM)
1405-1410	Message
	H.E. Varawut Silpa-archa
4 4 4 0 4 4 4 5	Minister of Natural Resources and Environment, Thailand
1410-1415	Summertime here all year (illustrated by UNESCO)
	Singer-Songwriter
1415-1435	Restoring coastal and marine habitats following the largest oil spill in history
	Friedhelm Krupp
	Senckenberg Research Institute, Germany
1435-1450	Mangrove Restoration: Thailand Case Studies
	Siriporn Sriaram
1450-1505	Acting Head of Office, IUCN Thailand Programme
1430-1303	Ben Hargraves
	Business Development, The Ocean Cleanup
1505-1520	Cleaning up canals in Bangkok
	James Scott
	Executive Director, TerraCycle Thailand
1520-1535	Role of Science Education towards Ecosystem Restoration
	Executive Director, Wildecologue
1535-1550	Summary and announcing 2021 activity calenda
	Siriporn Sriaram
	Acting Head of Office, IUCN Thailand Programme
1550-1555	'Damage Control & Swordfish' Poem
	Guy Andrews
1555-1600	Musician and Producer
1333-1000	Closing

Moderated by Dr. Benno Boer, Programme Specialist, UNESCO





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### **Ecosystem restoration In Sustainable Consumption and Production Context**

### Date: Saturday 5 June 2021

Time (PKT)	Theme
1630-1645	Welcome and Opening Remarks
	Dr. Abid Suleri, Executive Director - SDPI
1645-1655	Demystifying Sustainable Consumption & Production
	Dr. Mushtaq Memon, Regional Coordinator – Resource Efficiency – UNEP ROAP & Project Manager - SWITCH-Asia RPAC
1655-1705	Go slow on Fast Fashion
	Ms Afia Salaam, Freelance environment and Climate Change Journalist and Development Practitioner
1705-1710	Sustainable Lifestyles in South-Asian Context
	Ms. Archana Datta, SWITCH-Asia Project Coordinator for India, UNEP
1710-1715	Sustainable Consumption and Production in a post Covid-19 world Ms. Bharati Chaturvedi, Founder & Director - Chintan Environmental Research & Action Group
1715-1725	Plastic Pollution: Is Circular Economy the Magic Bullet?
	Mr. Dharmesh Shah, Public Policy Analyst, Advisor to BFFP and GAIA
1725-1735	Special Remarks
_	Ms. Romina Khurshid Alam, Member, National Assembly of Pakistan
1735-1745	Q/A & Closing

Moderated by Maryam Shabbir, SDPI







Annex 2: Leaflets of the events

### **Ecosystem Restoration and Sustainable Food Production and Consumption**









Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration











### Launch of the UN Decade on Ecosystem Restoration







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**Ecosystem restoration In Sustainable Consumption and Production Context** 













Given the context above, and in recognizing the importance of SCP, shedding a spotlight and raising awareness on SCP & ecosystem restoration for some of Pakistan's relevant ecosystem types like Urban Ecosystem, Ocean and river ecosystems and farmland ecosystems would be both fitting and desirable.

Accordingly, SDPI with the support of the EU-funded SWITCH Asia programme implemented by UNEP is organizing this webinar to raise awareness, build technical capacity, share knowledge and good practices, and forge partnerships for ecosystem restoration in Pakistan and to launch the UN Decade. The online webinar on "Ecosystem Restoration In Sustainable Consumption and Production Context" will be organized on 5<sup>th</sup> June 2021 to celebrate the theme and to highlight linkages between ecosystem restoration and production and resource efficiency, and promote the uptake of sustainable consumption and production practices in Asia and strengthening a dialogue on green economy and SCP in Pakistan.

#### Objectives

To highlight the concept of ecosystem restoration to members of the general public through voices from the ground, showcase relevant best practices and expert opinion on links between ecosystem restoration and sustainable consumption and production.

#### Agenda

5th June 2021, 3:30PM-5:00PM (PST) Registration link: https://us02web.zoom.us/webinar/register/WN SzgHmbAiTsCQL3QGzHDuJQ 15:30-15:35 Welcome Remarks SDPI 15:35-15:45 **Opening Address** EU Ambassador to Pakistan Her Excellency Androulla Kaminara\* 15:45-15:55 **Demystifying Sustainable Consumption & Production** Dr. Mushtaq Memon, Project Manager of SWITCH-Asia RPAC 15:55-16:45 Go slow on Fast Fashion Ms Afia Salaam, Freelance environment and Climate Change Journalist and **Development Practitioner** Tasneem Essop, Executive Director, Climate Action Network-International (CAN) Dharmesh Shah, Public Policy Analyst, Advisor to BFFP and GAIA Mr. Sanjay Vashist Climate Action Network South Asia (CANSA) Ms Aisha Khan, Head Civil Society Coalition on Climate Change (CSCCC) 16:45-17:00 Q/A & Closing Session Moderated by SWITCH-Asia RPAC, UNEP/SDPI \*TBC REIMAGINE UN @ 50 PAKISTAN 2021 RECREATE RESTORE ENVIRONMENT





## For more information

SWITCH-Asia event page:

Ecosystem Restoration and Sustainable Food Production and Consumption	<u>Link</u>
Empowering Youth for Sustainable Consumption and Production & Ecosystem Restoration	<u>Link</u>
Launch of the UN Decade on Ecosystem Restoration	<u>Link</u>
Ecosystem restoration In Sustainable Consumption and Production Context	<u>Link</u>

### Contact SWITCH-Asia Regional Policy Advocacy Funded by European Union

Implemented by United Nations Environment Programme, Asia and the Pacific Office

### Mr. Mushtaq Ahmed Memon

Regional Coordinator for Resource Efficiency United Nations Environment Programme, Regional Office for Asia and the Pacific Project Manager Regional Policy Advocacy Component (SWITCH-Asia – the European Union funded programme) Email: memon@un.org

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