Sustainable Consumption and Production

HOW LEBANON IS SWITCHING TO A CIRCULAR ECONOMY

Building climate resilience and resource efficiency
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SwitchMed is an EU-funded initiative to support transformation towards Sustainable Consumption and Production (SCP) and Circular Economy in eight Mediterranean countries. SwitchMed directly supports the reinforcement of an enabling policy environment, practices by private sector, and experience-sharing among stakeholders to build a community of practice on SCP, circular and blue economy and reducing the environmental footprint of consumption and production activities.

SwitchMed is implemented by the United Nations Industrial Development Organization (UNIDO), the United Nations Environment Programme (UNEP), the United Nations Environment Programme Mediterranean Action Plan (UNEP/MAP) and the Regional Activity Centre for Sustainable Consumption and Production (MedWaves, former SCP/RAC). The initiative is carried out in close coordination with the Directorate-General for Neighbourhood and Enlargement (DG NEAR).

During SwitchMed’s first phase (2013-2018) UNEP’s collaboration with the countries focused on the development of National Actions Plans (NAPs) for the transition to SCP and demonstration projects. The Sustainable Consumption and Production National Action Plans (SCP-NAPs) feed into and are closely linked to related national strategies (Sustainable Development, Green Growth) and the regional SCP action plan developed by UNEP-MAP.

The second phase of the project (2019-2024) builds on the successes of the first phase by focusing on enhancing economic opportunities for businesses following green and circular economy models, enabling resource-efficient circular economies at national and regional levels. As a result, this action provides new employment opportunities, including for women. A special focus is encouraged to support their participation in trainings and capacity building activities and benefit from other supporting measures.

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Mr. Bassam Sabbagh, National Focal Point of SwitchMed for his contribution and valuable input to this report.
The core aim of SwitchMed is to assist countries in making the transition to SCP and circular economy, one of the objectives the world set itself when it adopted the Sustainable Development Goals (SDGs) in 2015.

SwitchMed started back in 2013 – at a time when the SDGs were not yet adopted as the international Agenda for 2030. UNEP’s first activities at country level were to present and raise awareness of SCP and present the positive impact such a switch could have.

As a first step, UNEP provided technical assistance and capacity reinforcement for countries as they developed National Action Plans (NAPs) for making this switch. The plans focused on resource efficiency in tandem with other social and environmental challenges such as gender equality and climate change.

Lebanon’s NAP process began with a thorough assessment of the state of SCP in the country, and a review of existing policies and actions in the industrial sector. A plan was developed for cleaner production in Lebanese industry, with a special focus on the Litani River and Qaraoun Lake. Activities and outputs were measured and monitored.

The industrial sector was chosen as a priority because of the potential it offered for leapfrogging to socially inclusive SCP practices that preserved the environment, for integrating natural capital into core businesses, and for creating a critical mass of citizens for SCP.

A wide-ranging consultation process saw the plan validated nationally, and it was endorsed by the National Council for the Environment in November 2015.

Three operational objectives were identified for implementing the plan: adopting best available techniques, introducing SCP approaches in relevant policy and institutional frameworks, and raising awareness of consumers about SCP in the industrial sector.
SUSTAINABLE PUBLIC PROCUREMENT

Public procurement in Lebanon represents on average about 20 per cent of the country’s expenditure and about 5.6 per cent of GDP (about $4.3 billion). Switching to sustainable procurement therefore has enormous potential to make savings, and to mainstream SCP through a range of sectors. SPP is the practice by which government entities include social, environmental, and economic considerations in their purchasing practices in order to promote sustainability in the national market. Lebanon stands to benefit significantly from the transition, procedurally because SPP could unify procurement practices, and environmentally because a transformation in public procurement targets and practices can therefore have a transformative effect on the local market, as well as setting an example of good governance and sustainable consumption practices. To this end, the Lebanese Republic drafted a law to mandate SPP in November 2020, fulfilling one of the country’s goals under its SCP National Action Plan.

MUNICIPALITIES GOING PLASTIC FREE

Plastic pollution of aquatic ecosystems is projected to more than double by 2030, and, globally, greenhouse gas emissions from plastics are expected to increase to 6.5 GtCO₂e by 2050, or 15 per cent of the global carbon budget (UNEP 2021). Two municipalities, Beit Mery and Byblos Jbeil, have begun to take steps to reduce plastic use and promote sustainable consumption practices in their communities. Byblos Jbeil asked the owners of establishments, shops, restaurants, and grocery stores to replace plastic bags with eco-friendly ones by the end of 2018. The replacement bags should be made of biodegradable or recyclable material. About 60 per cent of the stores in Jbeil have already committed to stop using plastic bags. Similarly, Beit Meri launched a campaign “No for plastic bags” and called upon shops and supermarkets within the municipal area to reduce the use of plastic bags and replace them with recycled tote bags. At the same time: many regional and national projects under Ministry of Environment are working on decreasing the amount of Single Used Plastics and targeting supermarkets, hotels, and restaurants in collaboration with the ministry of Tourism, plastic bags remain available for a small additional cost, for those who still wish to purchase them. After the crisis many other municipalities and union of municipalities also took the initiative to sort at source and practically decrease the amount of plastics and other recycling materials that goes to the landfills and open dumps.

PROMOTING ECO-FASHION

The fashion industry produces up to 8 per cent of global carbon emissions, and is both the second largest consumer and polluter of water. Chemical run-off from textile dyeing can have harmful impacts on soil and water, and, typically, it takes around 2,000 gallons of water to make a pair of jeans. Yet every second, the equivalent of one garbage truck of textiles goes to landfill or is burned. If nothing changes, by 2050 the fashion industry will use up a quarter of the world’s carbon budget (UNEP 2018). To alleviate the negative effect that fashion has on the environment, Omar Itani, winner of the 2019 Champions of the Earth Prize, established FabricAid in Beirut. FabricAid reuses and recycles unwanted clothes. The clothes are sorted into more than 46 categories, and they are cleaned and redistributed to underprivileged communities. Prices range from US $0.3 to US $2 per piece, and the company has sold more than 60,000 items of clothing to more than 7,000 beneficiaries. Another entrepreneur, Eric Mathieu Ritter, aims to provide a sustainable and ethical alternative to fast fashion through his Emergency Room brand using locally sourced materials, which could be anything from old bed sheets and curtains to printed tablecloths. Further highlighting Lebanon’s leading role in the switch to sustainable fashion, renowned Lebanese designer Rami Kadi has been named as Goodwill Ambassador for UNEP’s Sustainable Fashion Programme in West Asia. Kadi’s work has featured in the official calendar of the Paris Fashion Week and his Spring-Summer 2020 Couture Collection showcased a dress made from recycled plastics (UNEP 2020).
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GREEN GLASS RECYCLING

The traditional craft of glass blowing was in danger of disappearing in Lebanon. One of the last remaining glass manufacturing plants was damaged in 2006, and was not rebuilt. Since then, about 71 million green and amber glass bottles have ended up in landfill or uncontrolled dumps each year (GAS 2021). The Green Glass Recycling Initiative – Lebanon (GGRIL) sends glass diverted from the municipal solid waste stream to traditional glassblowers of Sarafand, on Lebanon’s south coast, who have been turning their time-honoured techniques to contemporary designs. So far 1,000,000 bottles have been sent to them, for re-manufacturing into homeware and other products. Following the Beirut’s port huge explosion, on 4 August 2020, more than 120 tonnes of shattered glass were under recycling. Also, turning the disaster into an initiative that has benefit for the country on different level. A new trend now is the construction of several drop off centers for waste sorting. This experiment is working perfectly and it is spread all over the country and managed by NGOs or private sector companies.

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ENVIRONMENT PROTECTION LAW

Lebanon’s commitment to the principles of sustainable consumption and production can be seen in its environment protection law (444/2002). The law has a number of measures to support cleaner manufacturing processes, maintain ecosystems, and prohibits practices that could degrade natural resources, requires environmental assessments, and promotes recycling. Since then, the country has put in place a significant regulatory framework, which includes a decree (no. 167, 17/2/2017) that provides for tax relief on investments in environmental protection, particularly on the purchase of technology for monitoring environmental impact or quality, renewable energy, or waste management. Another law, on air quality protection (no. 78, 13/4/2018), puts in place measures to promote clean air, reduce impacts on the environment and human health, and aid the country in meeting its international obligations on climate change.

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FUNDING FOR GREEN INVESTMENTS

The Green Economy Financing Facility in Lebanon was developed by the European Bank for Reconstruction and Development (EBRD) and was supported by International Cooperation and Development Fund. EBRD has partnered with commercial banks in Lebanon together under the Green Economy Financing Facility (GEFF) Lebanon to provide funding for Lebanon’s sustainable development. This facility allows industries and individuals to invest in renewable energy, energy efficiency, green buildings, water and waste water reuse, sustainable land management, material and resource efficiency, and pollution abatement. A second facility, the National Energy Efficiency and Renewable Energy Action (NEERE), was a national financing mechanism initiated in 2010 by the Central Bank of Lebanon-Banque du Liban (BDL) dedicated to the financing of green energy projects in Lebanon. NEERE provides low interest (about 2.5 per cent) long-term loans to residential, commercial, non-profit and industrial users for all energy efficiency and renewable energy projects, including SCP technologies, for new and existing facilities.¹

¹ Due to the economic crisis and the depreciation of the Lebanese currency, these initiatives has suspended since Oct. 2019.
INTEGRATED SOLID WASTE MANAGEMENT LAW
Lebanon’s wish to become a zero-waste circular economy was given a legislative framework with the introduction of the country’s law on integrated solid waste management (no. 80, 24/9/2018). The law is founded upon the stages of household waste management: source reduction, reuse, sorting, recycling, composting, energy recovery, and disposal of residual waste. The law gives priority to reduction, reuse, and recycling, and requires that any residual waste that cannot be reused or remanufactured should be disposed of in an environmentally friendly manner. A decree under the law (no. 5605, 19/9/2019) requires that waste be sorted at origin in a manner that ensures it does not contaminate surface water and ground water, air, soil, flora and fauna; harm public health; spread smells or noise; adversely affect protected areas or natural sites; and does not pose a risk to nature and biodiversity.

WATER RESOURCES LAW
Lebanon is the third-most water stressed country in the world, and uses more than 80 per cent of its available water supply, according to a report from the World Resources Institute (WRI 2019). So it is not surprising the country is keen to “regulate, develop, rationalize and utilize water resources, protect them, and properly maintain and operate water installations with the aim of ensuring sustainable management of the natural water resources”. The water resources law (no.77, 13/4/2018) is multi-faceted, giving the beneficiary the right to exploit water, while respecting equitable distribution, preserving the resource, and protecting it from depletion and pollution. It also requires the Ministry of Energy and Water to develop a sustainable water policy, one that secures drinking water supplies, fight floods, drought and pollution, and preserves and restores the water environment. The law also promotes cleaner production by requiring all owners of industrial by imposing stiff penalties if they breach environmental law.
ECO-TOURISM

Tourism has long been one of Lebanon’s leading economic sectors, representing a major source of national income and employment. Before the Covid-19 pandemic, tourism was responsible for about 7 per cent of Lebanon’s GDP and provided 124,000 jobs. Six strategic areas were identified to promote the development of the sector: environmental sustainability, development of ecotourism products, social inclusion, regulatory and institutional frameworks, marketing, and communications. Low-impact ecododges in pristine natural areas as well as projects such as the Lebanon Mountain Trail, a 440-kilometre national hiking trail that runs through Afqa, Tannourine and the Shouf Cedars natural reserves and more than 71 villages, attract thousands of visitors. Another project, funded by GEF and implemented in partnership by the United Nations Development Programme and the Ministry of Environment, aims to improve rural livelihoods by developing a range of packages, including eco-, agri-, archeological, historical, heritage, and cultural tourism. A training programme for 35 local men and women has been launched to improve knowledge and skills of existing local guides, guesthouse owners, traditional catering services and potential rural tourism operators.

CLEANER INDUSTRY

In the process of developing its SCP National Action Plan, Lebanon decided to include a focus on the industrial sector, particularly industries along the Litani river, because of the potential to boost the economy and to provide sustainable jobs. The NAP built upon the country’s national strategy for the sector, “Lebanon Industry 2025: The integrated vision of the Industrial Sector in Lebanon”, which promotes green industries and confirms the government’s commitment to promoting environmental management and SCP principles in the industrial sector. Zero-waste, circular, resource-efficient, low-carbon approaches are encouraged. One project, Cedro 5, collaboration agreement between ALI Association of Lebanese industrialists and the UNDP to support 10 industrial facilities in transitioning towards renewable energy systems and increasing energy efficiency through funding from the European Union. Photovoltaic systems for electricity, solar thermal energy for heating, biogas for heat and electricity, and energy-efficiency technologies are being implemented. Many industries also took the initiative to switch towards renewable energy. this was done for two reasons the absence and the high cost of electricity provided through the public grid.
Around the world, humanity is making ever-increasing demands on nature, taking from the planet natural resources at a rate far greater than that with which nature is able replenish them. Simply, we are living beyond our planetary means.

How we adapt to this challenge of rising demand for shrinking resources will be our legacy to future generations. We have a choice: we can leave them a diminished world, or a more resource-efficient low-carbon one. The true value of programmes such as SwitchMed is that they show a way forward to this new world, one where we still produce the goods and services that we need, but do so in a cleaner, greener way. Switching to SCP also contributes to the UN Decade on Ecosystem Restoration (2021-2030) which aims to prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean. It can help to end poverty, combat climate change, and prevent a mass extinction.

The current Covid-19 pandemic has provided a tragic illustration of how closely linked human and environmental well-being are. Biodiversity loss, shrinking habitats, dwindling natural resources, pollution and climate change all adversely affect humans as well as flora and fauna.

But the pandemic has also created a rare opportunity to begin again, to adopt a systemic life-cycle approach that balances nature’s needs with national priorities. Implementing sustainable consumption and production practices across all sectors would be a significant step towards achieving this equilibrium.

Sustainable consumption and production policies also provide important opportunities to trigger transformative changes in economic and social systems and promote the human rights of women and girls as well as men and boys. It is imperative to integrate a gender perspective into sustainable consumption and production work in general and national action plans, which are the key policy instruments at national level that create the enabling policy environment to achieve SDG 12.

Currently, for instance, about one-third of all food produced is wasted, or spoiled because of poor transportation. This equates to 1.3 billion tonnes of food worth about $US 1 trillion. And if the world switched to energy-efficient light bulbs we would save $US 120 billion a year. Additionally, in the decade between 2010 and 2019, electronic waste grew by 38 per cent but only 20 per cent of that waste was recycled (United Nations n.d.).
The National Action Plans developed by countries with the support of SwitchMed recognize the potential of making the transition to SCP and circular economy and set out the pathways they intend to follow.

In its National Action Plan, the Lebanese Republic focused on creating sustainability in the industrial sector, and has been building upon that work to expand to other sectors. SCP and the circular economy have great potential to respond to national priorities, and to the three global crises (biodiversity loss, pollution, and climate change) the world is facing. Switching to more sustainable patterns of consumption and production will need behavioural change at both national and individual levels but could generate significant economic benefits. Research by the International Resource Panel shows that more efficient use of materials and energy could add an extra $US 2 trillion to the global economy by 2050 (UNEP 2017), while a study by the International Renewable Energy Agency (IRENA) shows that transforming the energy system could boost cumulative global Gross Domestic Product gains above business-as-usual by $US 98 trillion by 2050, nearly quadruple renewable energy jobs to 42 million, and expand employment in energy efficiency to 21 million.
The opportunities for countries from sustainable consumption and production are rich and varied. Some ideas for building on successes and moving forward, subject, of course, to alignment with national priorities, include:

+ **TOURISM.** Tourism around the world has been hard hit by Covid 19, so, as the sector turns its mind to recovery, now may prove an opportune moment to support and encourage doing things differently. Embedding resource and energy efficiency, waste reduction, and protecting flora and fauna could build resilience in a sector that, traditionally, is jobs intensive. Lebanon is already working on eco-tourism, through walking trails and ecolodges in destinations of natural beauty. Working to reduce food waste from restaurants in the hospitality sector, as well as promoting locally grown in-season food, could help Lebanon achieve some of its goals on GHG emissions, waste management, and circular economy. Additionally, for some marine or coastal destinations, a focus on sustainable actions could support the country’s efforts to expand its “blue” economy. Sustainable tourism is already a national priority, and a thriving blue economy could help deliver on that objective while improving lives and livelihoods, and promoting clean seas and environmental well-being.

+ **PROMOTING CIRCULAR ECONOMY.** A circular economy is a strong first step on the path to more sustainable consumption and production in that it encourages us to reduce, reuse, and recycle, but a truly circular economy closes the loop by encouraging the repair and remanufacture of goods produced. Lebanon is already taking steps along this path with the introduction of regulations that promote waste recovery and treatment through producer pays principles and cleaner, leaner production processes. Projects that support the creation of a market for repaired and remanufactured items (where goods at the end of their useful life are made into something else) could be valuable. Examples here could be creating standards for second-hand or remanufactured goods, making room for them within public procurement regulations, putting in place incentives for their purchase, and supporting factories and start-ups in the production of remanufactured goods. Targeting particular sectors, such as housing and construction, for instance, where much of the waste produced could be reused, may prove useful, and could aid in mainstreaming the principles of SCP and circular economy more broadly through society.
+ SUPPORTING CHANGE IN THE BLUE ECONOMY.
In Lebanon, the coastline is about 225 km in length and comprise five cities, namely Beirut, Tripoli, Byblos, Sidon, and Tyr. About 55 per cent of the country’s population lives in coastal areas, and many rely on the marine economy for their livelihood. There is significant potential in developing the blue economy, and for using SCP approaches to alleviate pressures from rapid urbanization, dredging and reclamation of the shore, coastal solid waste landfills. These approaches could include such things as resource efficiency in coastal and marine areas management plans, to innovative cleantech solutions, and standards for marine sports. Protecting the biodiversity of marine environments could have significant flow-on economic effects, particularly in eco-tourism, but also by improving the livelihoods of coastal communities with the development of small-scale projects that highlight the cultural traditions and crafts of the populations along the coast. Additionally, greening maritime operations, as well as those of industries that lie along the coast, could be useful in reducing waste, cutting GHG emissions, and creating jobs.

+ SUSTAINABLE FINANCING. Globally, a switch to green financing is under way. A database maintained by UNEP and the Green Growth Knowledge Partnership (GGKP) shows that there are now at least 391 national and sub-national policy and regulatory measures on green finance in place around the world, with 79 new measures were implemented or announced in 2019 (UNEP 2019). These measures range from transparency in climate-related risks in investment portfolios, to providing incentives for investing in green assets, and strengthening environmental risk management practices within institutions. Projects that support green investment, or a shift towards considering environmental impacts as a fundamental pillar of investing and lending practices, could be a significant contribution to building a better, greener, post-Covid economy.
DIGITAL TRANSFORMATION Delivering on the 17 Sustainable Development Goals the world set itself in 2015 will require commitment and innovation. Projects that examine, develop and assess the digital tools necessary to scale up ambitions in existing projects, to measure and record their achievements against SDG indicators, to understand the digital needs of industrial sectors to transform to cleaner more sustainable production, or that support technological start-ups working on creative solutions to climate change, biodiversity loss and pollution or that collect and disseminate data, statistics and knowledge will be important steps in the transformation to a more sustainable society. Lebanon is already working to promote innovation in industry, particularly in the areas of clean energy and waste management. Expanding the digital transition could aid in the efficient management of resources, as well as improving economic resilience in the post-Covid world by providing new green jobs.

Whatever path Lebanon decides to follow in the years ahead, it is important that environmental, economic, and social concerns especially on gender equality remain at its core. The country’s commitment to sustainable consumption and production provides a solid foundation, but behavioral change at all levels of society will be essential to achieve the transformation to a resource-efficient low-carbon world. An agile, resilient, innovative approach could see us all doing more and better with less as we work together to face any challenges that arise.

References:
**SWITCHMED: INSPIRING CHANGE**

SCP is about doing more and better with less. It is about meeting humanity’s needs but remaining within planetary boundaries, about using the natural resources that the Earth provides without degrading the environment. Now in its second phase, the SwitchMed projects works to support the development of policies and practices that support a switch to sustainable consumption and production (SCP) in the Southern Mediterranean region and to make the circular economy the mainstream business model there.

Lebanon has already developed integrated plans and a regulatory framework that have SCP at their core. For some time now, it has been building on these, expanding its waste reduction plan, establishing a circular economy, and further developing its work on sustainable water managements and energy solutions. It is clear that SCP is no longer just something discussed in meeting rooms. Now it is happening on the ground, across business and industry, in cities and regions, reducing pollution, improving the air we breathe, and promoting better use of nature’s gifts through resource-efficient and low-carbon consumption and production practices.

In this document you will see 10 success stories inspired by the work of SwitchMed in the Lebanese Republic. They show how what began in workshops developed into plans that created a ripple that flowed out around the country. This short publication shows that opportunities for countries from sustainable consumption and production are rich and varied.

The Switch to SCP is off and running. SwitchMed is proud to have supported Lebanon in its work to build a society where people and planet thrive and prosper together.