

Winter 2018

SwitchMed Magazine

Palestine

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funded by the European Union



switchmed

We are SwitchMed

SwitchMed is an initiative that supports and connects stakeholders to scale up eco and social innovations.

SwitchMed is an initiative that supports and scale-ups eco and social innovations

The SwitchMed Programme was launched in 2013 by the European Union to speed up the shift to sustainable consumption and production patterns in the Southern Mediterranean, notably through the promotion of circular economy approaches. The Programme aims at achieving productive, circular and sharing economies in the Mediterranean by changing the way goods and services are consumed and produced so that human development is decoupled from environmental degradation.

Its activities benefit 8 countries in the Southern Mediterranean: Algeria, Egypt, Israel, Jordan, Lebanon Morocco, Palestine and Tunisia. Through policy development, demonstration activities and networking opportunities, SwitchMed supports and connects stakeholders to scale-ups eco and social and eco innovations The Programme supports policy makers, eco-innovative small and medium sized enterprises, industries, start-ups and entrepreneurs in the Southern Mediterranean countries, which have identified job creation and natural resource protection as priority issues that also contribute to their economic stability.

SwitchMed, which works with a wide range of stakeholders, is committed to catalyse the market of sustainable products and services in the Mediterranean via:

- Capacity building in industry service providers targeting small and medium sized enterprises for resource efficiency improvements;
- Trainings for start-ups and entrepreneurs to build skills in design, business plan, marketing and financing of sustainable products and services;
- Engagement with policy makers to establish a regulatory and policy framework to boost the market for sustainable products and services;
- Empowerment of citizens and civil society organisations to lead socially innovative solutions addressing environmental challenges;
- An Action Network of stakeholders to link with similar initiatives and networks, exchange information and to scale-up current activities.

SwitchMed is implemented by the United Nations Industrial Development Organisation (UNIDO), the United Nations Environment Programme Mediterranean Action Plan (UN Environment/MAP), the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) and the UN Environment's Economy Division. Each of the implementing organisations brings its specialised experience and tools to partner with the eight countries on activities that span policy development, capacity building, business support services, demonstration activities and networking.

The United Nations Industrial Development Organisation (UNIDO) supports the development of green industry and sustainable production in the southern Mediterranean. It does so through a comprehensive approach that both presents the business case of resource efficiency to industries, and helps service providers increase their capacity to deliver sustainable production services matching the industry needs. In addition, UNIDO is cooperating with a number of national institutions addressing policies on sustainable production.

At the start of the project, the UNIDO designed TEST methodology is delivered to the service providers and local professionals. In collaboration with the UNIDO TEST expert team, the service providers identify and select companies to take part in the TEST project, based on the companies potential for improvements and top management commitment. Crucially, the company staff also receive the TEST training, enabling them to implement the technical measures and management solutions identified by the service provider. Their active participation in the training and in the implementation of the project ensures the sustainability of all identified actions at company level.

The TEST implementation approach has to date successfully demonstrated the profitability and effectiveness of introducing best practices and integrated management systems in terms of cost reduction, productivity increase and environmental performance, extending the experience gained to other industries in the region. UNIDO, together with local partners, also promotes business partnerships between local businesses and EU Eco-Innovative companies, creating an area of shared prosperity on the principles of a sustainable and inclusive socioeconomic development.

United Nations Environment Programme Mediterranean Action Plan (UN Environment/MAP) is a Regional Seas Programme under UNEPs umbrella that brings together the 21 Mediterranean neighbouring countries. MAP provides support to those countries in the implementation of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, the so-called Barcelona Convention.

The Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) is one of the centres belonging to UN/MAP. It is appointed with the mandate from the Contracting Parties of the Convention to promote Sustainable Consumption and Production in the Mediterranean region. In order to accomplish that mission the center provides knowledge, training, advice and networking opportunities to businesses, entrepreneurs, financial agents, civil society organisations and governments that work to provide Mediterranean's society with innovative services and products that are good for the people and for the planet.

The center provides technical assistance to the Contracting Parties to the Barcelona Convention to adopt SCP as integrated approach to decouple development from pollution and environmental and implements pilot projects in four countries: Algeria, Lebanon, Morocco and Tunisia. Likewise SCP/RAC supports green entrepreneurs and change makers driving eco and social innovations in the Mediterranean by providing training, technical and financial advice, jointly with a network of strategic local partners and local trainers. Moreover, SCP/RAC works closely with financial agents to establish mechanism that enable entrepreneurs and small companies that provide SCP solutions access to funding. SCP/RAC also hosts the Networking Facility that contributes to the visibility, effectiveness and scaling up of the SwitchMed activities.

UN Environment's Economy Division supports the development of SCP National Action Plans and provides advisory services and follows up closely the implementation of the demonstration pilot projects of four countries: Egypt, Israel, Jordan and Palestine.

UN Environment's Economy Division works closely with the National Focal Points (NFP), who are key actors in the SwitchMed and play a specific role in implementing the policy activities at national and disseminating the results in their respective countries. Focal points have been appointed by the national governments. In most countries a duo of Focal points – one from Ministry of Environment and one from Ministry of Industry.

SwitchMed Programme is funded by the European Union.

Palestine's facts and numbers

Population

- Largest city: Gaza City.
- Life expectancy at birth: 73.5 years.
- Population growth: 2.4% annually.
- Major Religions: 93% Muslim.
- Form Of Government: Unitary semi-presidential republic.

- Population: 4,816,503.
- Area: 6,020 km².
- Official Language: Arabic.
- Money: Egyptian pound (EGP), Israeli new shekel (ILS), Jordanian dinar (JOD).
- Major River: Jordan river.

Geography & Economy

- Natural reserves: 10.
- Urban population: 73.6 %.
- CO₂ emissions: 0.58 (2014).
- Plantations: 45% of land in the country dedicated to olive trees.
- Tourism: 400,000 arrivals (2016).

Sources: Economy and Demography in Palestine, Wikipedia, United Nations, The World Bank, Ministerio de Asuntos Exteriores y Cooperación & Atlasinfo.fr



Photo credit: @Bernat Mestres (White Horse)

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Engagement with policy makers to establish a regulatory and policy framework to boost the market for sustainable products and services.



Photo credit: @Near East Fundation

Implementing circular economy measures in the Mediterranean

The Mediterranean policy-makers developed within the SwitchMed programme a Regional Sustainable Consumption and Production Action Plan, including a Roadmap towards circular economy for its implementation in the Mediterranean as well as eight Sustainable Consumption and Production National Action Plans (SCP-NAPs).

The SCP Regional Action Plan was adopted in February 2016 by the 22 Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (known as Barcelona Convention), during their 19th Ordinary Meeting of the Contracting Parties. The SCP Regional Action Plan is a substantive contribution to the implementation of the 2030 Agenda for Sustainable Development. It is a strategic document that gives clear guidelines on the actions that should be developed in the region to shift towards sustainable consumption and production patterns, long-term sustainability, circular economy and new paradigms in the use of resources. It is also responding constructively to the climate change challenges. The document is structured around 4 key areas which are essential for the socio-economic development and for the job market in the region but are at the same time highly contributing to the pollution loads and to the environmental degradation of the Mediterranean. Those 4 areas are: food, fisheries and agriculture sector, tourism, goods manufacturing and housing and construction sector.

At national level SwitchMed, under the coordination of UN Environment's Economy Division, provided advisory services to the governments of the eight programme countries in the Mediterranean on mainstreaming SCP into national development planning. Eight multi-stakeholder nationally owned and nationally driven policy processes were undertaken to best respond to the national priorities on SCP. Given the difficulty to implement the full range of SCP policies and instruments at once, project countries select a limited number of priority areas to be addressed in their SCP National Action Plans, which contribute to poverty alleviation, environmental sustainability and the development of a green economy.

The SCP-NAP processes were tailored to the needs and specific country situations and allowed the synergies and integration with national development plans and national sustainable development strategies. During these national processes a total of over 40 national workshops, roundtables and nationally-tailored training sessions were organised to reinforce national capacity on SCP. The processes were inclusive and saw the participation of a large and diverse group of national stakeholders, representing different relevant government institutions, private sector, civil society, academia and media representatives. In total, 1,500 national stakeholders actively participated. As a result, eight SCP National Action Plans were developed, which are a first step in a country's response to the 2015 adopted Sustainable Development Goals (SDGs) and in particular Goal 12: Sustainable Consumption and Production.

Moreover, there are national demonstration pilot projects implemented on the ground to promote implementation of policies and actions, which effectively change patterns of consumption and production and implement circular economy measures in the priority sectors previously selected by the target countries. In total, 20 pilot projects were implemented by the end of 2018: 2 in Algeria, 2 in Egypt, 3 in Israel, 2 in Jordan, 1 in Lebanon, 3 in Morocco, 2 in Palestine and 4 in Tunisia.

Meet our focal points in Palestine

The National Focal Points (NFP) are key actors in SwitchMed and play a specific role in implementing policy activities and disseminating results at national level in their respective countries. A national coordination mechanism has been established in each country, coordinated and guided by the focal points appointed by their respective national governments. In most of the participating countries, two focal points—one from the Ministry of the Environment and one from the Ministry of Industry—work in tandem to lead the implementation of SwitchMed at national level.

Palestine State دولة فلسطين
وزارة الاقتصاد الوطني
Ministry of National Economy



Environment Quality Authority (EQA)

It seeks to promote sustainable environmental development of the Palestinian society. Its core mission is to protect the environment with all its elements and prevent environmental hazards threatening all living things. EQA is the umbrella for all activities and studies related to environment planning, protection, monitoring and control, based on the principle of partnership and complementary work.



Ministry of National Economy (MoNE)

It is the public body responsible of regulating and implementing the legislation and policy framework related to Trade, Industry and Economy in Palestine. Its mission is to encourage the growth of the private sector, including small-scale business, single owners and family enterprises, as well as large enterprises.

Agriculture, tourism and housing, priority areas for mainstreaming sustainable consumption and production in Palestine

Overview

The Palestinian National Action Plan on Sustainable Consumption and Production (SCP-NAP) was developed with the lead of the Environment Quality Authority (EQA), as part of the policy component of SwitchMed programme, implemented by UN Environment and funded by the European Union. The National Action Plan was prepared in a participatory approach, taking into consideration all stakeholders including, local and national government, semi-governmental organisations, nongovernmental organisations, grass roots organisations and initiatives, private sector, universities and research centers. More than 300 persons participated at various stages in the development of the plan. The SCP-NAP time frame is from 2017 to 2022 in line with the Palestinian National Planning framework. The vision of the SCP in Palestine is “Sustainable consumption and production patterns are systematically and explicitly integrated in the national development agenda in Palestine and are being adopted and implemented by the various stakeholders in Palestine”.

The development of the action plan in the priority sectors was developed in consultation with stakeholders at early stages; leading to high possibility of integration in their sectoral plans under development. EQA is a member of the National Team responsible for leading and coordination of the efforts to achieve the Sustainable Development Goals (SDGs) by 2030. The contribution made from the development of the SCP action plan will be the first tangible contribution towards achieving the SDGs.

Priority areas

The priority areas for mainstreaming sustainable consumption and production were identified based on three criteria, environmental, socio-economic, and institutional / political. The three priority areas identified for mainstreaming Sustainable Consumption and Production (SCP) are:

- Agriculture and food: focusing systematically on various aspects of sustainable agriculture production and climate smart agriculture; tackling environmental practices in food manufacturing; and addressing sustainable food consumption;
- Tourism: focusing on Eco-Tourism;
- Housing and Construction: focusing on green building and green public procurement of infrastructure.

The following strategic objectives were identified

- Develop, promote and implement sustainable agricultural practices, food production, and consumption in Palestine with special focus on climate smart agriculture, resource efficient production processes; in a manner that increases food security and sovereignty and ensures the right of Palestinian people to healthy nutrition and protection of natural resources.
- Promotion of innovation and knowledge and the integration of practices which enhance resources efficiency and contribute to natural and human capital protection, throughout entire planning and construction process and life cycle of buildings.
- Development and widening of Eco-tourism to expand business in the off season and extract additional value from seasonal tourism to ensure protection and rehabilitation of natural resources, respecting spatial, ecological, and socio-cultural carrying capacities of the destination and reducing environmental impacts of tourism.

Operational objectives

In order to achieve the three objectives, operational objectives were identified. For each operational objective the plan has identified the outcomes, intervention, stakeholders responsible for implementation, partners in implementation, and indicators to measure achievements.

For mainstreaming SCP in agriculture and food the following operational objectives and main themes were addressed

Operational objective 1: Develop, promote and implement sustainable agricultural practices in Palestine with special focus on climate smart agriculture, resource efficient agricultural processes, and protection of natural resources through implementation of best environmental practices and technologies in the growing, harvesting, and post harvesting processes.

Suggested actions include

- Enhancement of the use of alternative water resources for agricultural purposes including sustainable community level irrigation schemes and infrastructure; Increase resource efficiency in livestock production;
- Increase resource efficiency in plant production systems;
- Promote accesses to renewable energy in agricultural holdings, and promote shifting to renewable resources;
- Reduction of post harvesting waste; and
- Improved management of agricultural waste.

Operational Objective 2: Develop, promote and implement best environmental and health practices and technologies in food manufacturing practices in Palestine. The following was addressed under this objective:

- Environmental audits to 10 manufacturing companies;
- Implementation of mitigation measures;
- Introduction of preliminary wastewater treatment in dairy manufacturing;
- Certification systems, salt reduction in food products; occupational health and safety, awareness and capacity building;
- Establishment of a database on food manufacturing.

Operational objective 3: Develop the policy and legal framework to promote sustainable agricultural production and sustainable food production and consumption with special focus on conservative agriculture, and empowering small farmers and their cooperatives. The following topics for policies development were identified:

- Green value chains;
- Organic farming and marketing;
- Access of farmers and cooperatives for “green financing”;
- Agricultural Insurance and Lending Funds;
- Cooperatives – SWITCHING to sustainable production;
- Mainstream environmental issues in projects, programs and strategies;
- Certification systems;
- Standards and regulations associated with composting;
- Virtual water export and import;
- Healthy nutrition;
- School health; and
- Food fortification.

Photo credit: @Near East Foundation



Operational objective 4: Sensitize and educate food producers, retailers and consumers, and support the development of appropriate market tools and information, to promote green value chains of agriculture management, as well as food processing and distribution and consumption. Awareness and capabilities of stakeholders was focused on agricultural extension, and capabilities of stakeholders in the sector. Furthermore, capacity building to stakeholders to food manufacturing and to actors involved in improving nutrition were addressed, as well as awareness campaigns on sustainable food consumption patterns were also addressed.

Operational objective 5: Promote innovation, knowledge and participatory research that engages farmers, civil society organisation, researches and policy makers on aspects related to sustainable agriculture and food production practices and technologies with a focus on improved resource efficiency, minimizing environmental impacts, protecting natural resources, and improving the livelihood of the farmers. The following was identified to achieve operational objective 5:

- Establish a network for information and knowledge sharing on sustainable agricultural practices;
 - Share knowledge and information about greening value chains of agriculture;
 - Compilation of and support to best practices utilised in the country related to sustainable agriculture agricultural;
 - Support civil society organisations and cooperatives to report on best practices;
 - Development of national indicators to measure sustainability aspects in agricultural sector;
 - Establish and support already established demonstration farms practicing various forms of sustainable agriculture;
 - Conduct participatory Research related to SCP in agriculture;
- Support master students to conduct thesis on aspects of sustainable agricultural practices.

To mainstream SCP in construction and housing, the following operational objectives were identified

Operational objective 1: Enhance the role of public policy and decision making, and leadership by example for triggering the greening of the building sector;

Operational objective 2: Promote Retrofitting existing energy and resource intensive buildings stock;

Operational objective 3: Sensitize and raise awareness of all stakeholders involved in housing and construction, including local authorities, consumers, professionals of the sectors and institutions and develop capacities for mainstreaming green elements of buildings and sustainable life-style in using buildings.

The initiatives identified to achieve the above operational objectives are grouped under six themes: sustainable public procurement, waste management, renewable energy and energy efficiency, development of regulatory environment, capacity building and awareness, and certification systems for green buildings.

To mainstream SCP in Eco tourism the following operational objectives were identified

Operational objective 1: Promote the diversification of the tourism offer from mass tourism to alternative forms of tourism (e.g. ecotourism, cultural tourism, rural tourism, off-season tourism) to reduce the impacts of seasonality and to reduce environmental pressures on natural systems and protect them;

Operational objective 2: Promote regulatory, legislative and financial measures to mainstream SCP in the tourism sector, to enhance off season tourism, to create green and decent jobs, and to promoting local community engagement and empowerment;

Operational Objective 3: Raise awareness, capacities and technical skills to support sustainable destinations, and promote the development of appropriate marketing and communication tools to enhance sustainable Tourism.

In order to achieve these operational objectives, the following outcomes were identified:

- Identification of a list of eco-tourism sites;
- Development of 15 new eco-tourism sites;
- Sustainable management of existing eco-tourism sites;
- Marketing and promotion of newly developed sites; and
- Creating an enabling environment for switching towards sustainable tourism.

Circular economy measures adopted in 3 pilot projects

By the end of 2018, 3 demonstration projects will be implemented on the ground. The national pilot project selection was based on the priorities expressed in their SCP National Action Plan that has been developed under the SwitchMed policy component.

Sustainable consumption and production dissemination

The aim of this pilot project was to raise awareness about sustainable consumption and production (SCP) by disseminating different activities. The pilot activities included the translation of several relevant documents into Arabic, the development of additional project profiles, a collection of a portfolio of 15 Palestinian switchers, a documentary on SCP in Palestine, and the organisation of an exchange forum between the different SwitchMed components and a SCP exhibition in three of the country's cities.

Promoting eco-trails

This pilot project aimed to develop a methodology for eco-trails and sites, establishing guidelines to restore and promote five pilot trails. The activities included the selection, assessment and creation of a shortlist among existing trails and sites and the coordination of meetings in conjunction with the Ministry of Tourism. In addition, two consultation workshops on eco-trails with around 40 specialists from all relevant stakeholders were organised, which aimed to establish the selection criteria for the eco-trails.

Promoting sustainable agriculture

This pilot project aimed to develop agricultural modules to promote sustainable practices. Activities included the development of guidelines for biological pest control and assessment of post harvesting techniques and handling to highlight and define the causes of post harvesting losses. Consultation workshops in Ramallah, Nablus and Hebron were organised and the best practices manual 'Guidelines for introducing agricultural best practices to preserve organic matter and moisture content in soils' was prepared and discussed. Three sustainable consumption and production expos with media coverage were also organised in Jenin, Hebron and Gaza and included over 30 initiatives ranging from recycling of used tyres to organic agriculture and upcycled fashion.

Photo credit: @TijsB



Demonstrating the business case of a Resource efficient and cleaner production (RECP) in Palestine's food industry.

Photo credit: @X



Working towards a resource efficient and greener production

At SwitchMed we support the adoption of sustainable production in the southern Mediterranean that enables industries to increase their ability to produce with lower cost, while reducing their environmental footprint. We do so through the MED TEST II project, a comprehensive approach that demonstrates the business case of a resource efficient production in 125 industries in 5 key production sectors of the southern Mediterranean, by using capacities of local service providers. This approach promotes the business case of a resource efficient production to industries in the southern Mediterranean, while advancing the supply of national capacities on sustainable production services.

Transforming industries to meet the needs of changing market conditions and a rising resource scarcity calls for a change in knowledge, attitudes and practices that can lead to a production that requires less resources and reduces pollution. The MED TEST II project, presided by the United Nations Industrial Development Organisation (UNIDO), applies the methodology named the Transfer of Environmentally Sound Technologies (TEST), a concept that addresses the challenges and barriers industries are facing in becoming more resource saving, energy efficient, and less-polluting.

The TEST concept approaches all management levels of a business, involving people with different professional backgrounds and operational responsibilities, in order to enhance and sustain the efficient use of production inputs and environmental performance. Connecting the resource efficient and cleaner production (RECP) assessments with present-day standards in environmental and energy management systems, helps building cross-cutting understanding and capacities within various management areas of a company and enables a holistic understanding and support for RECP within the business. This encourages a business culture where eco-innovative business solutions can thrive and a systematic assessment of the production can be set-up to monitor resource use and support a continuous improvement on the business performance. Furthermore, this approach encourages the production of goods that are responsibly managed throughout their life cycle, and increases the ability of companies to access international markets with good quality products and to reach compliance with environmental standards.

The MED TEST II project has displayed that the potential for improvements in resource savings within the production of the southern Mediterranean industry is significant. In the eight SwitchMed countries, the MED TEST II project identified 1,830 improvement measures within the 125 demonstration companies. The identified measures have stimulated a total investment of 87.6 million euros out of which 43% of the measures had a payback period below 6 months. A short payback period combined with an annual saving potential worth 41.7 million euros, has contributed to a high implementation rate of the identified measures (75 %), showing that investments in RECP is a feasible and a profitable business decision. Through the identified RECP measure in the MED TEST II project, industries in the Southern Mediterranean region now can annually save 3,512,660 m³ of water, 707 GWh of energy, reducing the solid waste generation with 19,602 tons and CO₂ emissions with 197,525 tons per year. In addition, 682 professionals from industries, service providers, government institutions and academia received training on the TEST methodology during the demonstration phase of MED TEST II in the SwitchMed target countries.

Resource efficiency is key in switching towards circular economy models. The MED TEST II project has revealed how additional economic and environmental benefits can be gained from the RECP approach using an integrated methodology of TEST that gives businesses an opportunity to invest in their future while reducing their environmental footprint.

Partners for green growth in industries

Strengthening national capacities and competencies related to RECP is an effective way to ensure that a sustainable impact that goes beyond the duration of the project can be achieved and is therefore also one of the main objectives of the MED TEST II project. For this reason, UNIDO is closely collaborating with government institutions and stakeholders from the industry and civil society to raise the significance of RECP to policy makers and knowledge networks, and to strengthen the national capacities in providing expertise on RECP.

With the support of the Ministry of National Economy (MNE) and the Environment Quality Authority (EQA), the MED TEST II project in Palestine was implemented with the support of the Palestine Academy for Science and Technology (PALAST), in collaboration with the Palestinian Food Industries Union (PIAU), the Palestinian Federation of Industries (PFIU), and the Bank of Palestine (BOP).

Trainings, combined with onsite technical assistance, were provided by local service providers with the support of international sector/thematic experts. The idea behind this approach was to demonstrate the business case of RECP in one of the most important industry sectors of Jordan, namely the food and beverage industries. This approach also helped service providers to gain experience with the TEST methodology and to establish reference cases that would help to market the TEST concept to interested industries through Jordan.



Palestine Academy for Science and Technology (PALAST)

It is an autonomous public, not-for-profit organisation with its headquarters in Jerusalem and branches in Ramallah and Gaza. Established in 1997, the Academy is assigned to be the primary science and technology body in the country in charge of providing advice in formulating policies, programs and projects to support national development and participating in the coordination of relevant scientific and technological activities. As a result, the Academy constitutes the focal point and an umbrella for science and technology.

During the MED TEST II demonstration phase on the West-Bank in Palestine, PALAST coordinated and implemented the TEST methodology in the Palestine food industry sector contributing towards a sustainable industrial production mode in Palestine and increasing the long-term competitive position of businesses while reducing their environmental pollution by applying cost-effective measures and technologies.

Resource efficiency the way forward for Palestine’s industry

For Palestinians, peace and prosperity are inseparably connected, but the stalemate in the political development of the region has had grave social and economic consequences and caused a shortfall in foreign investments, aid, and private consumption. This situation, along with a high unemployment rate and a restricted access to resources, has prevailed the much needed economic recovery and added pressure on business to reduce costs while at the same time maintain their quality and competitiveness on an already heavily restricted export market. Power supply interruptions and a continuous dependence on expensive and carbon-intensive fossil fuels for energy generators has instigated high energy prices, and has become the main driver for businesses to look for alternatives that are more energy efficient and can be aggregated from the plentiful renewable energy sources the region has to offer.

In common with the energy situation, water also continues to face distribution problems in Palestine. As one of the most arid regions on earth, both the industry and the communities face shortages in sourcing this valuable resource and with an estimated population growth the rift between water demand and supply is likely to intensify. Apart from the challenges in water and energy, Palestinian companies must also cope with high transportation costs and impeding import and export restrictions, which coupled with increasing prices for raw materials, and the aforementioned socio-economic challenges, underpin the need for cost saving and resource efficient production solutions. As a result, a more resource efficient industry would not only improve the economic situation for businesses and improve their ability to compete in international markets, but also contribute to ensure the availability of resources to other communities of Palestine.

But to accelerate a development that can both develop a private sector that is able to compete in regional and global markets, and to ensure the availability of resources to all society segments, will require innovative and applicable tools in finding resource efficient ways on how industries deal with waste, energy and water. While industry accounts for 23.4 % of the gross value added in Palestine, this economic sector is vital as a producer of goods for the regional and local market and as a job creator. Turning challenges into opportunities is at core to the UNIDO TEST methodology as it supports industries with a toolset to address the rising energy and raw material costs by integrating saving measures into current business operations. The MED TEST II project, implemented in Palestine from 2015 to 2017, has enabled 10 Palestine businesses from the food industry sector, to identify 92 RECP measures. Thanks to the identified saving opportunities, the 10 industries will reduce their annual water consumption with 244,850 m³, their energy consumption with 5.3 GWh per year. The identified saving measures will also reduce waste by 261 t per year and enable the participating businesses to reduce their CO₂ emissions 4,197 t per year. All in all, the identified saving measures require investments worth 2.5 million euros, at an average payback period of one year, and will enable the 10 companies to annually save 2.4 million euros in annual production costs. These figures clearly illustrate that investments in resource efficiency is a good investment for the business and the environment.

If other businesses decide to take on the approach of a resource efficient production in the industry of Palestine, the RECP concept could become a core element of assisting the economic development of the country and contribute to a more equal resource distribution. As demonstrated in the MED TEST II project, businesses have been enabled to produce responsibly managed products throughout their life cycle, while increasing productivity and at the same time reduce productions costs. This will contribute the ability of businesses to maintain access to international markets with good quality products that can meet international standards at a competitive level. Therefore, if Palestine is about to change and tap into the full extent of its potential in developing the private sector, it is fundamental that other businesses and sectors pick up and follow the business case of RECP - as it was demonstrated in the MED TEST II project in Palestine. To accelerate this development, UNIDO, together with stakeholders from the civil society, government and the industry have developed a scaling-up roadmap on how to expand the RECP concept in Palestine. An action plan that will support the facilitation and reinforcement of national competencies around the topic of RECP and green growth has been developed with the ambition to mainstream the RECP approach throughout the industry in Palestine.

To download the individual case studies from the MED TEST II project in Palestine, follow the [link](#) or scan the QR code here:



Photo credit: @UNIDO

Case studies from Palestine

In the Sinokrot Chocolate and Confectioneries, the wafer production line revealed to be the major source of material and product losses with a reject of 15% compared to 1% of best practice. Through a modification of the product formulation, improved operational control and the installation of a new creamer section, the company not only achieved a better quality of their wafers, but also an increase in the productivity, while reducing rejects by 10% at packaging stage with an annual raw material savings worth 28,000 euros. Several energy efficiency measures led to a reduction of the total gas consumption at boilers and oven in the range of 60%..

“Our main challenge was to reduce the volume of defective wafers during the baking stage. The second problem was the high energy consumption. Here, we needed external support from the MED TEST II project to help us identify the causes of our problems and find solutions to address them.”
Eng. Muhsen Sinokrot General Manager, Sinokrot Chocolate and Confectioneries

Al Jebrini is a leading Palestinian company operating in the manufacturing and agricultural sector with several plants producing dairy farms products for the local and regional markets. Before joining the MED TEST II project, the company faced rising costs for energy and water and with a climbing demand in its products, the company was eager to get a hold on the increasing costs. Through the MED TEST II project, a set of good housekeeping measures, and two major investments in pasteurizers and chillers will help to reduce the annual energy consumption by 10%. Also, by improving Cleaning-in-Place (CIP) operations, 35% of the annual water consumption, a significant amount in Palestine, could be saved. The implementation of the MED TEST II project and the provision of employee trainings, have raised the awareness among staff on the issue of resource consumption and also provided the company with a roadmap that will support future business expansion strategies.

“Our ambition for this project was to reduce our water and energy consumption. Good management practices and the use of new technologies will bring environmental and financial benefits.”
Jehad Al-Jebrini, General Manager, Al Jebrini Group for Dairy and Food Industries

Siniora Food Processing Company was founded in Jerusalem in late 1920. The company is a modern meat processing facility, producing a range of products such as; cold cuts, luncheon slices of premium turkey and beef, sold to national and regional markets.

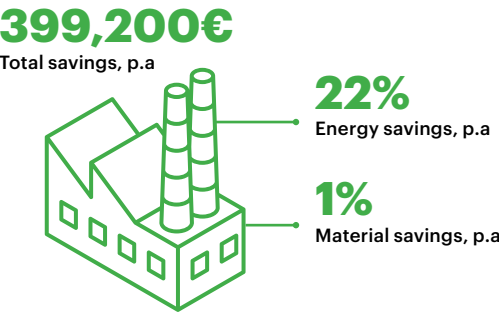
The company decided to join the MED TEST II project in Palestine mainly to reduce energy consumption in their production facility in East Jerusalem. However, the MED TEST II project managed to identify several areas for improving, not only energy efficiency, but also consumption of water and raw materials. For instance, the company had been using water showers to cool the cooked products, and it was found through a company-wide assessment that water usage within this process amounted to 55% of the total water consumption. A modification of the cooling process, using new resource-efficient techniques, have reduced 60% of the total water consumption for this step giving a total 27% reduction of the annual water consumption. All in all, the MED TEST II project identified 12 RECP measures that will lead to annual savings in energy, water and raw materials corresponding to a value of 104,696 euros in annual production costs.

“Applying the TEST methodology in our company helped us to see our hidden costs and to move towards significant saving opportunities. We have applied most of the savings options, reducing raw materials losses and water and energy consumption.”
Eng. Majdi Alshareef CEO, Siniora Food Processing Company

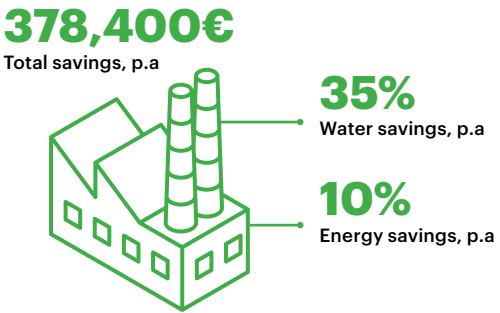


Total savings by the selected companies

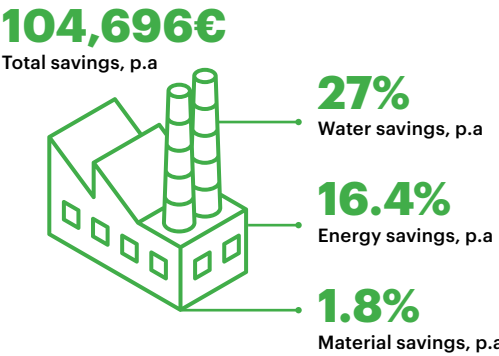
Sinokrot



Al Jebrini



Siniora



Annual environmental impact savings identified in the 10 Palestinian food industries

47

professionals

professionals from business consultancies, government institutions and industries received training on the tools of TEST during the demonstration phase of MED TEST II in Palestine

244,805

m³ per year of annual water savings

=

2,675

Palestinian households annual water consumption

4,197

tonnes of annual CO₂ savings

=

891

passenger vehicles driven for one year

5.3

GWh per year of annual energy consumption savings

=

1%

annual energy consumption on the West Bank

10

companies

=

2.4 million

euros saved annually

Scaling up a resource efficient and cleaner production throughout the Palestine’s industry

The transition to circular economy is becoming a central issue in sustainable development strategies at international, regional and national level. To this end, the United Nations 2030 Agenda for Sustainable Development urges member countries to ensure sustainable consumption and production patterns for prompting resource and energy efficiency (SDG 12).

At the regional level, the SwitchMed program is therefore consequently designed and implemented to facilitate the transition to Sustainable Consumption and Production (SCP) patterns in the Southern Mediterranean region.

In this sense, the achieved results from the MED TEST II project in Palestine are conclusive as they confirm the relevance and effectiveness of the TEST methodology as an instrument for industries that wish to overcome challenges related to a sustainable consumption and production. The cost effective measures, often combined with brief pay-back periods, will allow businesses to integrate RECP solutions in their current production without threatening the day-to-day business operations. However, despite the many benefits a more resource efficient production would offer and a relatively favourable institutional framework for SCP, the situation on the ground is intractable regarding the uptake

and generalization of sustainable production modes in the industry and often limited to the implementation of pilot projects, such as the MED TEST II, which justifies the need for a scaling up roadmap for RECP. Making the transition from demonstration activities to a sector wide mainstreamed adoption of RECP in the industry of Palestine, would be pivotal in helping achieving the SDGs in Palestine. In this regard, UNIDO together with the Palestine Authorities, the local partners from MED TEST II, and stakeholders from the industry and civil society, have developed a roadmap with propositions on how to guide a sector wide adoption of RECP in Palestine and what actions will be required to make this adoption happen in Palestine. The goal of this action plan, which is based on the concept of leverage points and experience gained from the MED TEST II project in Palestine, is to eventually create a

system change around the topic of RECP for industries that will encourage an adoption and change towards RECP.

The table below lists the goals of the roadmap that were identified in the development of the roadmap for RECP in Palestine and the desired outcomes this would yield into. A detailed activity plan with responsibilities is outlined in the final scaling-up roadmap, which is online accessible in English and Arabic.

Download the scaling up roadmap for RECP in Jordan [here](#).

Pathway 1

- Strengthen food products produced locally and internationally.
- Build workforce capabilities in the sector.
- Introduce efficient best practices and technologies to the sector.

Scaling-up RECP within the Food Industry

- Conduct a general assessment of a sector’s needs, highlighting existing problems and opportunities
- Establish a national database of how industries perform on RECP issues.
- Promote RECP in all relevant food sub-sectors, including agribusiness.
- Implement training and capability building programmes in the RECP areas.
- Promote relevant standards and certificates on life cycle assessment and management.
- Explore creating a national centre providing RECP services to the food industry sector.

Pathway 2

- Introduce RECP concept to sector’s needs.
- Minimize the environmental footprint and costs of products in the sector.
- Build human capability (workforce) within the sector.

Scaling up within new industrial sectors – Stone and Marble Industry

- Integrating the RECP concepts into the good practices described within the EQA database on stone and marble
- Based on performance information in the EQA database, conduct a detailed needs assessment across the sector.
- Design and implement a MED-TEST pilot project for a sample pool of companies within the sector. Scale up RECP results from the sample companies to other industrial sites.
- Promote integration of RECP into relevant standards and certificates in cooperation with PSI.
- Strengthen the RECP capabilities of the Stone and Marble Centre of PPU.

Pathway 3

- Build the capabilities of EQA, MoNE, PSI, and PENRA for RECP concepts.
- Introduce policy instruments promoting RECP

Awareness raising and policies promoting RECP

- Train inspectors from MoNE and EQA on RECP concepts. Training could be carried out whilst implementing the RECP concept at one of the Stone and Marble companies in cooperation with USM.
- Integrate RECP principles into Energy Audit procedures carried out by PENRA.
- Include RECP principles in the EQA’s EIA Terms of Reference.
- Conduct awareness-raising programmes in cooperation with PFI.
- Actively communicate the results and benefits of the project through local media and relevant national platforms.

Pathway 4

- Facilitate industry access to financing for investment needed for RECP measures.

RECP Financial Scheme

- Pilot soft loan scheme based on the experience of MED TEST II sample companies and BoP programmes, and promote it to other companies.
- Integrate RECP lending schemes into EQA, PENRA and MoNE policies and guidelines.
- Explore possibilities for utilising existing programmes offered by international financing institutions to support roll-out and implementation of RECP in industry.
- Initiate contact for potential benefit from the SUNREF funds for scaling-up RECP and for potential benefit from the PENRA income tax incentive scheme.

Pathway 5

- Include principles in academic and TVET curricula.
- Raise awareness among workforce about RECP principles to develop skills of the labour market.

RECP in Academia and Technical and Vocational Education and Training (TVET)

- Develop curricula and courses for Sustainable Consumption and Production (SCP) principles and RECP concepts, for both Diploma and Bachelor programmes.
- Design and conduct training of trainers (TOT) programmes targeting academic staff.
- Create a forum of relevant stakeholders to exchange knowledge and improve collaboration efforts.

3

**Building technical
capacity and
supporting green
businesses in order
to build a green
entrepreneurship
ecosystem in the
Mediterranean.**

Photo credit: @Bernat Mestres (White Horse)



Capacity building for green and circular economy business models

At SwitchMed we are building a green entrepreneurship ecosystem in the Mediterranean by supporting green entrepreneurs from southern Mediterranean countries. 10 local partners were selected to follow-up closely the programme on the ground. In parallel, an innovative training methodology was developed to support the creation of green business and adapted to the context of the Southern Mediterranean. The methodology – comprised of a handbook and workbook on green business model development and green business plan development & incubation– guides green entrepreneurs through the entire process of growing their green business idea into a full-fledged enterprise. The methodology also provides tools and test the green entrepreneur's business models, by explaining step by step how to validate the business model's hypothesis with targeted customers and stakeholders.

Many of these individuals have a sound business idea but may lack the knowledge needed to transform their idea into a viable business. For this reason, the Green Entrepreneurship programme also includes a comprehensive training and incubation programme for individuals on how to launch a green business, led by the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC). The training programme – a five-day module delivered over three months in each of the SwitchMed beneficiary countries – requires green entrepreneurs to reflect on and articulate how their business idea will bring value to the economy, the environment and the community. Through the practical exercises, entrepreneurs must clearly identify the underlying problems and needs they are addressing, map their stakeholders, interview potential customers, document their mission and their environmental and social value proposition, evaluate the resources and energy needed to create their product or service and think about how they will generate revenue streams, amongst other activities. A key component of the training programme is the module dedicated to eco-design, which requires entrepreneurs to take an in-depth look at the entire life cycle of their products and services to evaluate and improve their environmental performance and to challenge them to incorporate innovative solutions in their business models. Circular economy principles form the

cornerstone of this module, which gets entrepreneurs thinking about the many dimensions of environmental sustainability that can be incorporated in their product or services. Materials, for example, can be chosen to maximise recycled content, renewability and recyclability to preserve natural resources and give value to other waste streams in the community. The incubation programme includes 55 hours individual follow-up advisory service by a local mentor, a tailor-made external technical assistance and support to develop a crowdfunding campaign, if applied, as well as support to access to finance throughout a period of 8 months.

In total, 123 local trainers were trained on-site, and finally, 84 were selected for the implementation of the training programme. Out of the 6,000 applicants who submitted an application to join the training programme, +2,300 green entrepreneurs were selected and trained. In the aftermath of the trainings, 166 entrepreneurs were selected and received a 10 hours individual coaching to improve their green business models. Out of the 157 entrepreneurs who submitted an application for the incubation phase, 49 were selected by an International High Level Jury that operated pro bono and included a group of independent experts from business, technical, institutional and academic sectors.

A national synergy workshop in each SwitchMed country was held to identify challenges and opportunities to promote green entrepreneurship and social eco-innovation initiatives, to identify specific measures and tools to strengthen the regulatory framework as well as to stimulate the market for sustainable products and services. In the end, a white paper was published, to highlight the strengths and weaknesses of the country green entrepreneurship ecosystem, in order to reveal the areas and axes where the needs for action are greatest and a whole collection of interviews.

Meet our local partners

Our local partner, as selected by SCP/RAC, is an organisation with extensive knowledge of the current situation in Algeria concerning civil society organisations, social movements and empowered communities aligned with sustainable consumption and production and ecological and social innovation as well as experience of organising/managing workshops. The main task is to assist SCP/RAC in identifying and selecting local trainers and potential grassroots initiatives to join our training programme.



Center for Continuing Education, Birzeit University

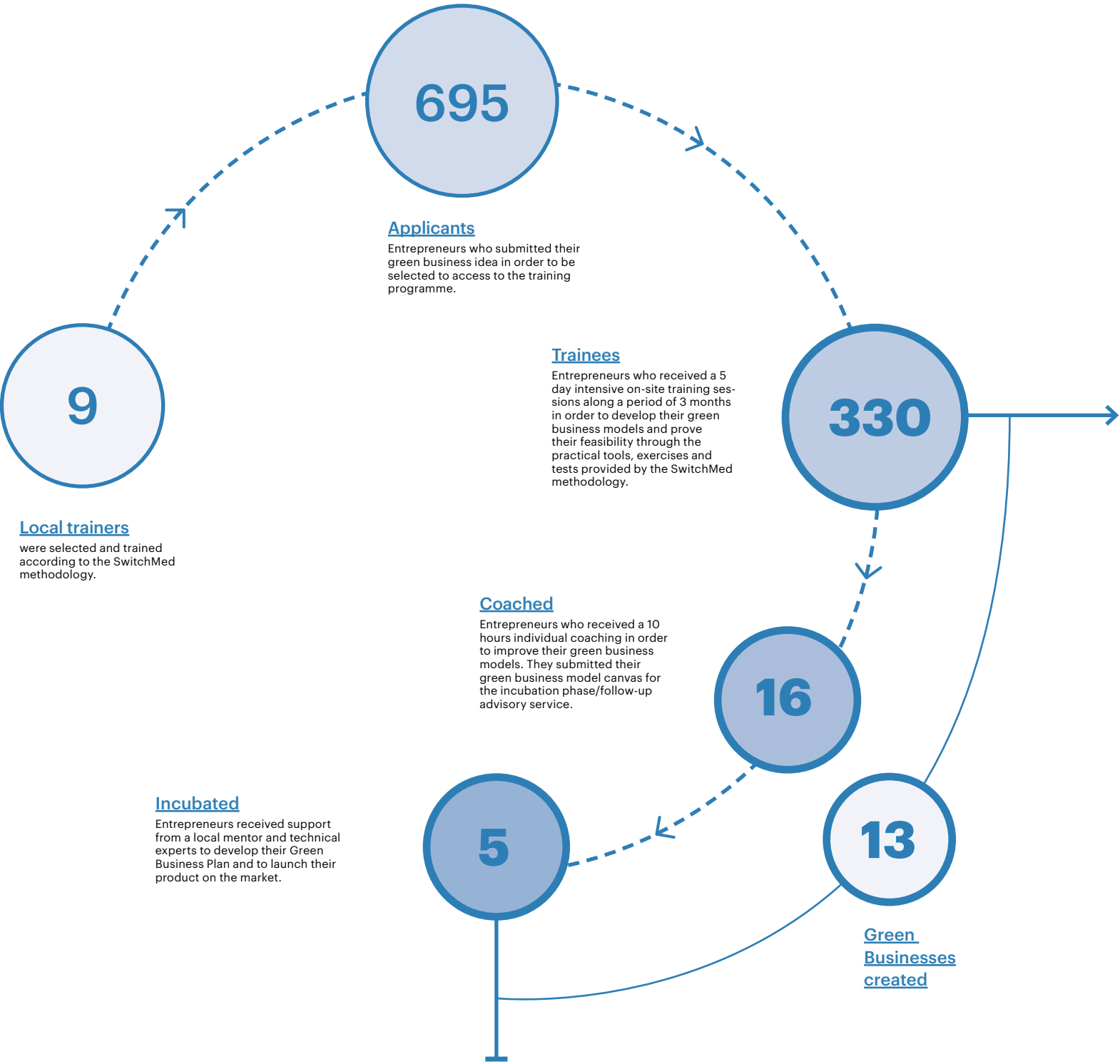
Established in the early 1990s as a community outreach program, the Center for Continuing Education (CCE) is still functioning as Birzeit University's community service arm working in the areas of educational reform, professional and organisational development, enterprising & entrepreneurship and capacity building for the current and future work.

CCE endeavors to empower the local community and create sustainable development impact. The underlying principles upon which CCE stands are innovation and creativity, teamwork, continuous learning and development, cooperation, knowledge sharing and partnerships, respect and integrity. CCE is fully aware that these foundations are the basis of success and survival required of any individual or organisation today, and more importantly in the future.

Our local trainers, carefully selected by SCP/RAC as well, have extensive experience in initiating, implementing and evaluating environmentally and socially innovative projects and also have a deep understanding and knowledge of training methodologies based on empowerment, collective learning and a participative approach. At SwitchMed, they are responsible for actively participating in the regional co-creation workshop, together with other local trainers from the participating countries. Local trainers also support their local partner organisation and SCP/RAC in identifying grassroots initiatives and guaranteeing the participation of at least 20 social eco-innovative actors/initiatives in the national workshop. This task also includes the provision of support in disseminating the workshop call through the available channels in order to attract potential actors and initiatives for the national workshop. The trainers are also in charge of facilitating a four-day national workshop with the support and guidance of SwitchMed's Civil Society Empowerment team.

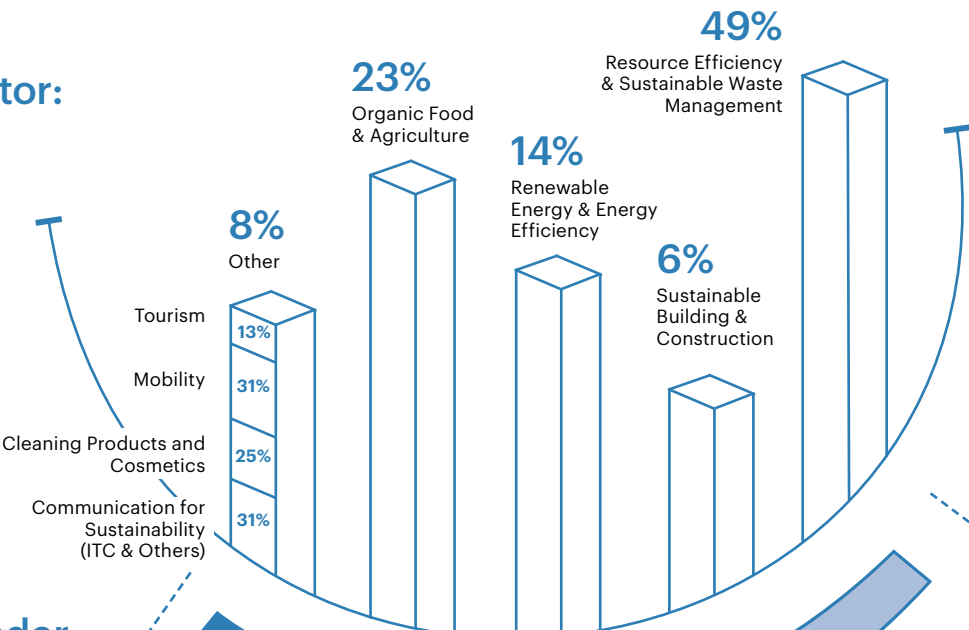
The local trainers participate in the multi-stakeholder process to select the best two initiatives arising in the workshop to receive further technical support. They also provide 50 hours of individual coaching support over 6-12 months, aimed at the development of a support plan to identify technical needs for the proper development and implementation of the project.

How is the green entrepreneurship programme contributing to the environmental, social and economic impact?

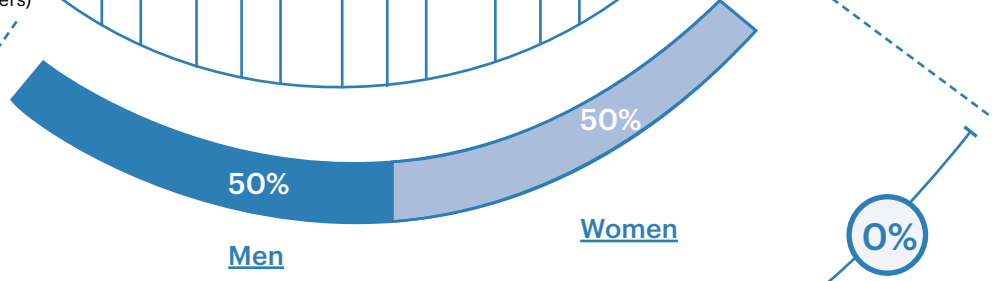


Analysing our Palestinian 330 trainees

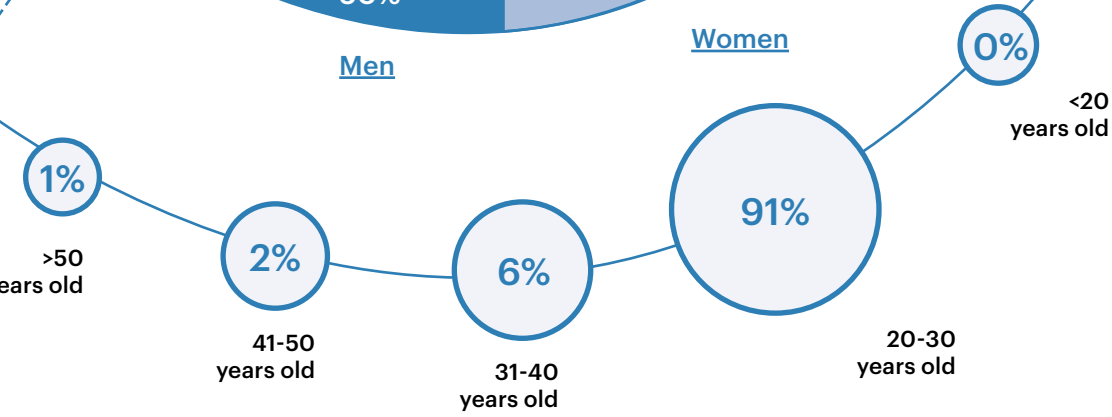
By sector:



By gender:



By age:



Meet our Palestinian incubated green entrepreneurs

Tafkeek

Connecting e-waste sources with e-waste recyclers

Tafkeek, which in Arabic means ‘dismantling,’ is an e-waste facility that aims to connect e-waste generators in Palestine with e-waste recycling companies abroad, mainly in Europe and Asia.

Tell us about yourself and how the idea for your business was born

My name is Tasneem Abuhijleh, and I am a medical laboratory specialist. The idea for Tafkeek first came to me when I was writing my master's thesis about the e-waste phenomenon. I saw that electronic waste was becoming a global problem with lots of implications for the environment and public health. The UN estimates that there are around 40 million tonnes of e-waste accumulated each year globally. This kind of waste differs from general waste as it contains various hazardous substances and toxic chemicals that pollute the environment and pose a risk to human health when processed, recycled or thrown away. What makes Tafkeek unique is the fact that it will be the first registered company officially working in the field of collection and dismantling of electronic waste in Palestine. The project offers a global collection system to connect e-waste generators in Palestine, meaning any houses, governmental institutions or private companies, with e-waste recycling companies abroad. Tafkeek's core business involves the collection, sorting, dismantling and packaging of e-waste, which, due to the current political situation, is not being adequately managed. The last stage of the process, which is exporting to recycling companies abroad, falls within the framework of the provisions established by the Basel Convention, which permits Palestinians to export this type of waste when there is no availability for recycling in the importing country. Tafkeek is the first project in the country that will play the role of a mediator between e-waste sources and e-waste recyclers, becoming an e-waste recycling hub for the West Bank.

What is the environmental and social impact of your project?

The recycling of waste, in general, is the first step to preserving the Palestinian environment, and thus the health and safety of our children and families. Tafkeek's main goal is to clean up the environment while developing a formal e-waste recycling market in Palestine and, in the process, we will certainly also create green jobs. We want to prevent the pollution caused by traditional methods used to deal with e-waste. Our goal is to reduce the amount of non-valuable materials disposed of in open areas by 300 tonnes per year over the course of the next three years. Our business model is not only about sorting, dismantling and exporting reusable materials but also represents a solution to the absence of disposal facilities in Palestine by organising, collecting and managing the demand for such specific environmental services. We want to prevent the dumping of hazardous e-waste which is currently disposed of in open fields. Electronics like computers or televisions are dismantled to extract valuable materials such as nickel and copper, leaving hundreds of pieces of leftover plastic and foam scattered across burn sites, which cause toxic emissions that adversely affect the health of entire villages, causing respiratory illnesses and contaminating running water and soil. The green jobs we will create aim to remove hazardous e-waste and instead channel it towards specific projects that effectively manage the valuable materials extracted sustainably, an activity that also has the potential to stop e-waste being dumped in landfill sites. Our collection system will collect electronic equipment from large buildings, companies and repair shops in an organised and efficient manner on a monthly basis. The collection process will also be linked to awareness campaigns. We want to promote the culture of recycling.

How have you benefited from the SwitchMed programme?

As a result of my training journey with SwitchMed and the expert support received, the idea for Tafkeek has become much clearer and more consolidated in my mind over the course of the last 18 months, so that I have now reached a point where I can see it as a real project. SwitchMed has provided me with valuable understanding and knowledge with regard to the innovation process, project management and green business planning. Before joining the programme, I didn't know how to get started and I have now gained the confidence to be able to run my own business and help my community. You could say that it has given me the courage to start my own female-run business in a waste management sector, both of which are new phenomena in Palestine.

Since I joined SwitchMed, I've received 40 hours of face-to-face support from a local mentor, Baher Dikeidek, to develop my green business plan. During the mentoring process, I have learnt about internationalisation and market scaling of my business. I also received support with developing my brand identity and corporate design, such as logo, brand colours and fonts, as well as with conducting a customer segmentation strategy and a market and SWOT analysis, and a product and service eco-design study, which was used to produce a catalogue. Thanks to the incubation phase I have made a lot of progress. The technical assistance provided by external experts has increased my knowledge of the e-waste dismantling industry concerning what type of waste to work with, how to carry out the dismantling process and how to deal with the waste generated by my own plant and run it according to green practices.

I've also had support with regard to accessing finance, participating in specific training sessions and meeting local investors. A financial expert helped me build my financial plan, setting-up costs and sources of capital and cash flow development, a break-even analysis and a three-year income statement. Thanks to the support I was able to design, execute and launch a crowdfunding campaign and produce a 120-second promotional video about the environmental and social value of my project. A legal expert also helped me with registering the company and advised me on the most appropriate type of registration. He is also going to give me more information and advice in the future regarding any necessary patent or trademark registration.

Having joined the Switchers community in 2018, I have also had the opportunity to establish valuable collaborations. For instance, I was introduced to Ines Temimi from Tunisia, another Switcher who is the founder and owner of Collectum D3E, a project that recycles electronic waste in an environmentally responsible manner and, thus, she also contributes to creating a circular economy in her own country.



Photo credit: @Bernat Mestres (White Horse)

Treating Waste by Waste

Treating wastewater pollution by using solid waste

Treating Waste by Waste is an integrated system that simultaneously eliminates the environmental pollution produced by leather-tanning wastewater and stone-cutting solid waste, minimising economic losses for both industries while reducing the impact on public health and the environment.

Tell us about yourself and how the idea for your business was born

We are Nareman Zahde, Nadia L'Qefan and Heba Dweik, and we are environmental engineers. During our time at Palestine University, we conducted experiments in which we successfully treated wastewater with stone-cutting solid waste particles. It was only when we heard ten local tanneries were due to close because of the untreated sewage-disposal problem that we thought of redirecting this innovative solution to solve an urgent need. The leather tanning industry provides hundreds of jobs for the Hebron community, but uses various noxious chemicals in its production stages. The most toxic and pollutant of these is chromium, and the wastewater produced by tanneries contains a high concentration of this carcinogenic chemical. Stone-cutting factories produce large quantities of solid waste particles which cause land and water pollution and clog up the sewer systems. Our goal with Treating Waste by Waste is to offer an efficient, eco-friendly, integrated treatment unit that removes chromium from tannery wastewater through absorption by solid waste particles, thus eliminating pollution from both industries and minimising their economic losses while reducing the impact on public health and the environment.

What is the environmental and social impact of your project?

The overall benefit is the improvement of the surrounding environment, public health and working conditions. Treating Waste by Waste contributes to saving underground water, soil, livestock and people from the impact of chromium contamination, solving a significant problem for both the stone cutting and the leather tanning industries. Laboratory results have proved this treatment system to be 99% effective. Stone-cutting particles will neutralise tannery wastewater and uptake 90% of the chromium in a 30-minute reaction process instead of an hours-long process using conventional methods. The process also uses 50% less water, saving an estimated six cubic metres daily, and the treated wastewater can be reused in the same industry, thus saving groundwater, soil and wildlife from the impact of both chromium and stone-cutting particles pollution. The system minimises running costs and increases the public share of fresh water, reducing the effects of water scarcity. It also costs three times less than the current method, which could allow these industries to expand and hire new people.

With this project, we will provide five direct jobs the first year, and this number will likely double when we expand into other customer segments. The system can be replicated and scaled-up in India, Kanpur, Tunisia, Egypt, Morocco and Pakistan, and can perform for the dairy, galvanisation and lubricants industries. It also has the potential to create new jobs for environmental engineers and technicians. Treating Waste by Waste could be replicated and scaled-up in many developing countries, improving public health and working conditions as well as the environment.

How have you benefited from the SwitchMed programme?

We are lucky that SwitchMed came to the rescue and helped us to implement our project. They gave us the necessary training and assigned a local mentor to help us launch Treating Waste by Waste. The methodology developed during the training has helped us to address our needs and develop our green business canvas. During the incubation phase, we received the support of a local mentor. He enabled us to identify the needs of the project and set priorities, such as enhancing our strategies and business planning. It helped us to improve our management and pitching skills to find potential funding and participate in the Green Start-ups Meet Investors event, where we received valuable advice from investors on obtaining financing.

During the incubation phase, we received coaching from three experts, one of whom assisted us in the eco-design of a device, approximately 240 cm tall, that mixes tannery wastewater, generally loaded with chromium and ammonia. The device was designed using the AutoCAD program, consists of two barrels, and is installed in leather tanneries to neutralise the chemicals found in tannery wastewater. After the mixing process, the water will be 100% clean and reusable. Thanks to the technical support, we also realised that our customer segment should be expanded into other industries. The same process has the potential to be used in the galvanisation industry to absorb zinc, in the dairy industry to absorb organic solids, and in the lubricants industry to uptake waste lubricant and grease. We were also supported through access to finance activities.

The technical support we received also helped us to prepare a financial feasibility study and establish environmental, green procurement and corporate social responsibility policies.



Photo credit: @Federico Gutierrez

Aisha Design
Sustainable fashion designs made of upcycled scraps of fabric and leather

Tell us about yourself and how the idea for your business was born
My name is Aisha Dweikat. I'm from Nablus, a community well-known for its craftspeople and for producing home furniture. After finishing my studies in interior design, I dreamt of setting up my own company which could support women and girls and promote Palestinian culture, all in one. Then, when I was working at the Jenin Refugee Camp, I had the job of designing a set of games for the refugees with the only available materials there, which were scraps of fabric. These games constituted a challenge since they were more educational than entertaining. However, working there gave me the idea for using remnants like that in my jewellery and home decoration designs. With the monthly salary from my work at the refugee camp and thanks to a couple of grants that I was awarded for my project, I was able to fund Aisha Design, a green business idea that focuses on reviving Palestinian heritage while helping the environment.

As a designer, I have good connections to fellow designers and production workshops. That, plus my participation in different programmes and workshops organised by UNIDO and creative Palestine initiatives, led me to develop a range of designs for accessories, jewellery and home accessories, including bags, cushion covers, table runners and a lot of other eco-friendly products. In the beginning, I sourced fabric from textile factories and used silver for my accessories and then I added other materials, such as wood, sponge and even discarded olive wood. I want my designs to be about environment meeting heritage. I want them to highlight the Palestinian identity and to tell a story.

What is the environmental and social impact of your project?
Aisha Design contributes to the global movement that supports ethical production practices all over the world. I visit textile factories every day and see how much textile waste the manufacturers end up throwing away. To produce our designs, we not only use fabric leftovers but also upcycle other materials like leather. With the help of my crowdfunding campaign, I prevent the equivalent of one tonne of fabric and industrial leather per year from ending up in landfills or being burnt and by 2030, that figure will amount to 20 tonnes. I also provide a stable income for four impoverished families. Regarding the social impact, I'm also using this initiative to help the women in my community by employing them in my workshop and giving them access to a job and a stable income. 90% of our workers are women and young girls. All our products are hand-stitched by refugees and low-income craftswomen in Palestine. This way we create job opportunities for women from refugee

camp and marginalised areas around Palestine. Besides that, with this project, I also want to contribute to raising awareness about overconsumption and recycling in the Palestinian Society. Recycling here is still a new concept, especially with regard to everyday products, but it is a trend that is growing, and Aisha Design operates in an area that is believed to be well positioned in terms of venturing into recycling. I want my products to transmit a message of coexistence between humans and the planet, as they combine environmentally friendly, organic and locally constructed materials.

How have you benefited from the SwitchMed programme?
SwitchMed has played a significant role in the consolidation of my business idea. As I've been a Switcher for a while, I've benefited from networking opportunities and training sessions to improve my communication skills. Recently, I received help with launching my crowdfunding campaign, as a part of SwitchMed's access to finance activities, which will allow me to support and promote my project. I was lucky to have been able to work with one of the best experts in this sector, Happy Smala, who gave me the necessary information to design the best campaign possible, targeted to the right audience. The SwitchMed incubation phase will also help me to outline my green business plan, increasing my competitive advantage and identifying the best options to launch on and international scale.

REWAT
With water and land scarcity, this entrepreneur is coming up with environmental solutions in Palestine

Rawat offers a solution for the environmental challenges in Palestine. It's goal is to preserve the three most important elements of the environment namely water, soil, and plants. Agricultural engineer Jamma Abo El Hasan aims to maintain water irrigation, organic materials and microorganisms with the growth of weeds under mattresses maintaining the increase of green areas. It has long been known that Palestine does not have control over its water resources, nor does it have a piped water supply at 25% of its households. But that is hardly the only problem hampering the agricultural sector in Palestine, with land scarcity and limited control over land at the core of the problem. Jamma Abo El Hasan mingled with the farmers to dig deeper into their problems and monitored the issue closely to find a solution. He was part of the SwitchMed Incubation, which contributed to raise his social and entrepreneurial capacity.



Photo credit: @Bernat Mestres (White Horse)

Photo credit: @Bernat Mestres (White Horse)



“I will prevent 20 tonnes of fabric and industrial leather from ending up in landfills and provide a stable income to four impoverished families.”
Aisha Dweikat, founder of Aisha Design

“The tanning and stone-cutting industries produce large quantities of untreatable waste. We use the waste of the second to treat the waste of the first: two birds, one stone.”
Nadia Eqefan, co-founder Treating Waste by Waste

“Since I joined SwitchMed, I’ve received 40 hours of face-to-face support from a local mentor, Baher Dikeidek, to develop my green business plan. During the mentoring process, I have learnt about internationalisation and market scaling of my business.”
Tasneem Abuhijleh, Tafkeek

The Switchers: Discover inspiring changemakers who are switching towards a cleaner Mediterranean

Photo credit: @ Hosh Jasmin

There are 340 Switchers showcased in the Switchers platform. They are all shining examples of how circular economy approaches can lead to business opportunities and also drive innovation that benefits people and the environment. In Palestine, there are 30 Switchers at the moment in the platform.

The Switchers is a community of inspiring green entrepreneurs and changemakers in the Mediterranean region hosted by SwitchMed and SCP/RAC. Switchers are individuals, enterprises or civil society organisations implementing innovative ecological and social solutions that contribute to a switch to sustainable and fair consumption and production. They are active in a variety of fields, including organic farming, sustainable tourism, waste management, organic textile, recycling of electronic waste, sustainable building, organic cosmetics production, among others. Most importantly, the Switchers is a community with a voice and a meeting place for people in the region who are passionate about shaping their environment towards a more sustainable future.

For the Switchers, circular economy solutions are at the heart of their business models and also inspire them to seek ways to innovate and achieve even higher levels of environmental sustainability in the design of products and services they provide. Together, these important economic actors are making significant progress towards the goal of the SwitchMed programme and one of the region's key sustainable development objectives: to accelerate the shift to more sustainable modes of consumption and production. In doing so, they are setting a positive example of how economic growth can also lead to protection of the Mediterranean and its precious, limited natural resources.

To read more on the stories of change makers at our new online Switchers platform at www.theswitchers.eu



Meet our Switchers in Palestine

The walking Tech

On track: A Palestinian tech startup makes artificially intelligent running shoes from recycled materials

The Walking Tech offers athletes eco-friendly running shoe insoles, imbued with artificial intelligence that tracks foot movement and athletic performance. Co-founders Reham Abuolwan and Saeed Qaraib's business has attracted impressive funding, and early product testing is positive.

The Walking Tech's flagship insole product, Insolito, distinguishes from competitors by extensively using recycled materials with the desire to tackle the mounting piles of trash in Palestine. The insoles work by sending live data from the runner's feet to a mobile app. Abuolwan credits her experiences in the United States as crucial to founding The Walking Tech. Her entrepreneurship lessons enlighten her and opened up a new range of technical and commercial ideas. The Walking Tech received a \$25,000 grant from a local startup accelerator. The funding was used to study foot movement simulations and, develop the first prototype for Insolito. The Walking Tech remains committed to changing perceptions about recycling at home, and local volunteers currently help them by scouring landfill, searching for waste that can be reused in Insolito's circuit systems.

Hakoritna Farm

Permaculture practice strengthens roots in Palestine

Hakoritna Farm is a permaculture practice based in Tulkarm that introduces regenerative ecological practices. Fayez Taneeb has developed a conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems.

Hakoritna Farm is a demonstration site for experimenting and teaching organic farming techniques and regenerative ecological practices. Agriculture and Permaculture students visit to learn how to build biogas tanks that convert animal manure into energy, and solar dryers to preserve fruits and vegetables. The farm applies sustainable permaculture methods such as reusing organic materials from the harvest, collecting rainwater from greenhouses' roofs which are later stored for watering the farm throughout the year. It further serves as a forum for information exchange and learning by harboring 'Global Campus'. One of its most important accomplishments

is to inspire Palestinians to invest in their abandoned family lands, villages, or refugee camps, using organic and eco-friendly farming practices.

Shtayya

Sustainable housing and communities find their way to Palestine

Shtayya Architecture & Sustainability is Palestine's first to focus on sustainable architecture and engineering. Ahmad Shtayya and his roster of 15 staff offer a cross-section of services, including engineering and design, urban planning, feasibility mapping, and the supervision of new, green projects.

Shtayya is determined to shape Palestine's sustainable architecture sector by designing sustainable cities with green residential buildings not just architecturally attractive but also including centralised water treatment facilities, solar panels, heat and sound insulation, and a garage for bicycles among other sustainable features such as public transportation and green space nearby. Shtayya uses sustainable construction with recycled materials like plaster, heat and water insulators, or 'replacing concrete with air' by using cobiax, a plastic material made entirely from plastic garbage. An important part of Shtayya's vision is educating future generations about sustainability. Pushing for gender equality, Shtayya often handicaps more women for his training, acknowledging it is more difficult for them to get into the engineering field.

ARIJ

Environmental programs for responsible water consumption

ARIJ, the Applied Research Institute of Jerusalem is an NGO that supports sustainable development in the occupied Palestinian territories. Among its many environmental projects, ARIJ is working in the construction of wastewater treatment units waste and water saving devices to encourage responsible consumption.

ARIJ is working in partnership with local authorities, municipalities and other associations or NGO's to empower Palestinian communities to have a better control of their natural resources, while contributing to sustainable development in the occupied Palestinian territories. Its scope is very broad, since it includes the areas of agriculture, renewable energy, waste management and water treatment. So far, ARIJ has implemented 250 water treatment systems in Palestinian

villages, designed with simple technologies to minimize production costs and allow the transfer of technical knowledge to the mainly low-income families living in rural areas. In addition, ARIJ also works on awareness and installation of water saving devices. The NGO has launched an awareness campaign in Palestinian hotels to promote more responsible water consumption.

H2O farm

The Palestinian agripreneur using hydroponics to grow agricultural resilience in the West Bank

H2O farm is a 340 square meter operation, which produces 8,000 plants monthly. According to Kandoorie Amarna, an operation of that size using conventional watering methods would yield between just 500 and 1,000 plants in the same time period.

H2O farm's sustainable solution uses less than 80% of the water of traditional agriculture. Amarna created a nutrient mineral solution to infuse water with the nutrients plants need to stay healthy such as potassium, ammonium, and calcium nitrates. Hydroponics systems don't need soil to function, and they can be installed on school rooftops, rocky outcrops, and anywhere with a flat surface. Amarna views Palestine's growing hydroponics scene as a success. Since 2015, he has helped establish more than 10 farms across the West Bank. H2O farm also provides the instruments, raw materials, seedlings, design work, and expertise needed. To support this mission, H2O now has 3 other employees, and created a training program for young students.

Msader

The Palestinian solar company eyeing regional growth

Msader is a leading Palestinian solar company that designs, imports and installs off and on-grid solutions. Abdelnaser Dwaikat's project is one of the largest solar companies in Palestine, with more than 50% of the country's market share.

Msader's installations can be found everywhere, from individuals' homes to private businesses, or huge solar fields constructed for the national electrical company. Msader has already two large contributions: its 710 kW project in the Dead Sea and another 1.6 mW photovoltaic station near Jericho. The electricity from these larger projects, and 80% of Msader's other installations, is sold to the Palestine Electric Company and stored

in the national grid. The remaining 20% goes towards powering off-grid projects like households and businesses found in remote, low-density areas too rural to have access to the grid. Besides teaching people how to use energy efficiently, the company is also interested in increasing the knowledge and skills of its 20 employees.

Dead Sea Pearls

Palestine's first all-natural organic beauty and cosmetic products

Dead Sea Pearls provides high quality, natural, and organic beauty and cosmetic products made in Palestine such as bath salts, mud masks, anti-aging creams, and salt and mud soaps. According to Nasser Al Khatib the environmental efforts are calling for the governments in the region to allow more freshwater to flow to the sea and asking mineral industries to use membrane technologies to extract the salts without evaporating the water.

Dead Sea Pearls' products are stocked in more than 100 shops in Palestine, including pharmacies, specialty cosmetics stores, and hotels. They are trying to market their products to show the good quality of Palestinian products. While primarily sold nationally, Dead Sea Pearls sent their first international order to Russia recently. Production of Dead Sea Pearls cosmetics has also created jobs for eight women at the Bethlehem factory. In addition to their monthly salary, the women also get a small percentage of the sales. "People were telling me this payment model was a crazy idea, but I believe it's important to work as one team," Al Khatib explains.

Taita Leila

Palestinian heritage lives on through hand stitched clothing

Taita Leila is a fashion collection that meant to preserve Palestine's rich history of hand-stitching and employs local women as embroiderers. Noora Husseinini created this fashion collection to pay tribute to her grandmother's research to preserve Palestine's rich history of hand-stitching.

Taita Leila creats modern and stylish clothing that tells a story, and also explores and re-appropriates cultural Palestinian heritage. The company's first collection, Qabbeh, draws inspiration of the country as a whole, creating an atlas of re-envisioned heritage. The Ramallah top from the Qabbah, for example, features red stitching with Hellenic influences, emblematic

of the Greek Orthodox population that settled in the region. The second collection, Benayiq, rich in azure blue, is inspired by Hebron's famous craft scene. To support the creation of the two collections, Husseinini launched a crowdfunding campaign and raised more than \$40,000. The pre-orders from crowdfunding allowed Taita Leila to place one large bulk order at once, which meant stability for Taita Leila's embroiderers.

Hosh Jasmin

An organic farm-to table cuisine on a hillside near Bethlehem

Hosh Jasmin is an organic farm and restaurant set on a hillside in Beit Jala, near Bethlehem which serves traditional Palestinian food in their home restaurant. Mazen Saadeh and Aidan Pendleton produce varieties of 100% organic vegetables including eggplants, tomatoes, green beans, and many others, and has also started to produce its own organic wine and arak.

Hosh Jasmin also offers hiking, camping, art workshops, volunteering, screening films and music events. It seeks to inspire an agricultural revolution in the region, by providing healthy food and showing the need to take care of the land, the nature and the culture for a better future. Hosh Jasmin's goal is to sustain the life and offer local employment opportunities, but they also want to offer an artist-friendly space where people feel safe and relax, eat good and and enjoy the nature. Thanks to its employees, seven people from the local community, the restaurant offers visitors a plethora of Palestinian food.

Comet-ME

Renewable energy for Palestinian villages in the West Bank

Comet-ME is an NGO dedicated to the implementation of renewable energy in the occupied Palestinian territories. Elad Orian and Noam Dotan created Comet-ME to provide basic energy and clean-water services based in wind and solar power to marginalized communities from the Israeli-Palestinian conflict

Comet-ME (Community, Energy and Technology in the Middle East) oversees the set up of mini-grid hybrid plants which operate by wind and solar energy and can provide each family an average of 2.5 kWh per day. This is enough to have access to elementary amenities such as light, refrigeration, laundry machines and butter churns. The association

also implements water pump systems that enable people to obtain drinking water more easily. In 2012, Comet-ME launched the first Israeli-Palestinian technology centre in the south Hebron hills, completely powered by renewable energy. It functions as a platform for research, innovation and training. Of its 12 employees, half of them are Palestinians from the southern West Bank and one person was directly recruited from a local community benefitting from the project.



Photo credit: @Shtayya



Photo credit: @Taita Leila



Photo credit: @PETRICHOR Aquaponics



Photo credit: @Resign for upcycling Palestine



Photo credit: @Msader



Photo credit: @Nexus



Photo credit: @Mostadam Eco Design

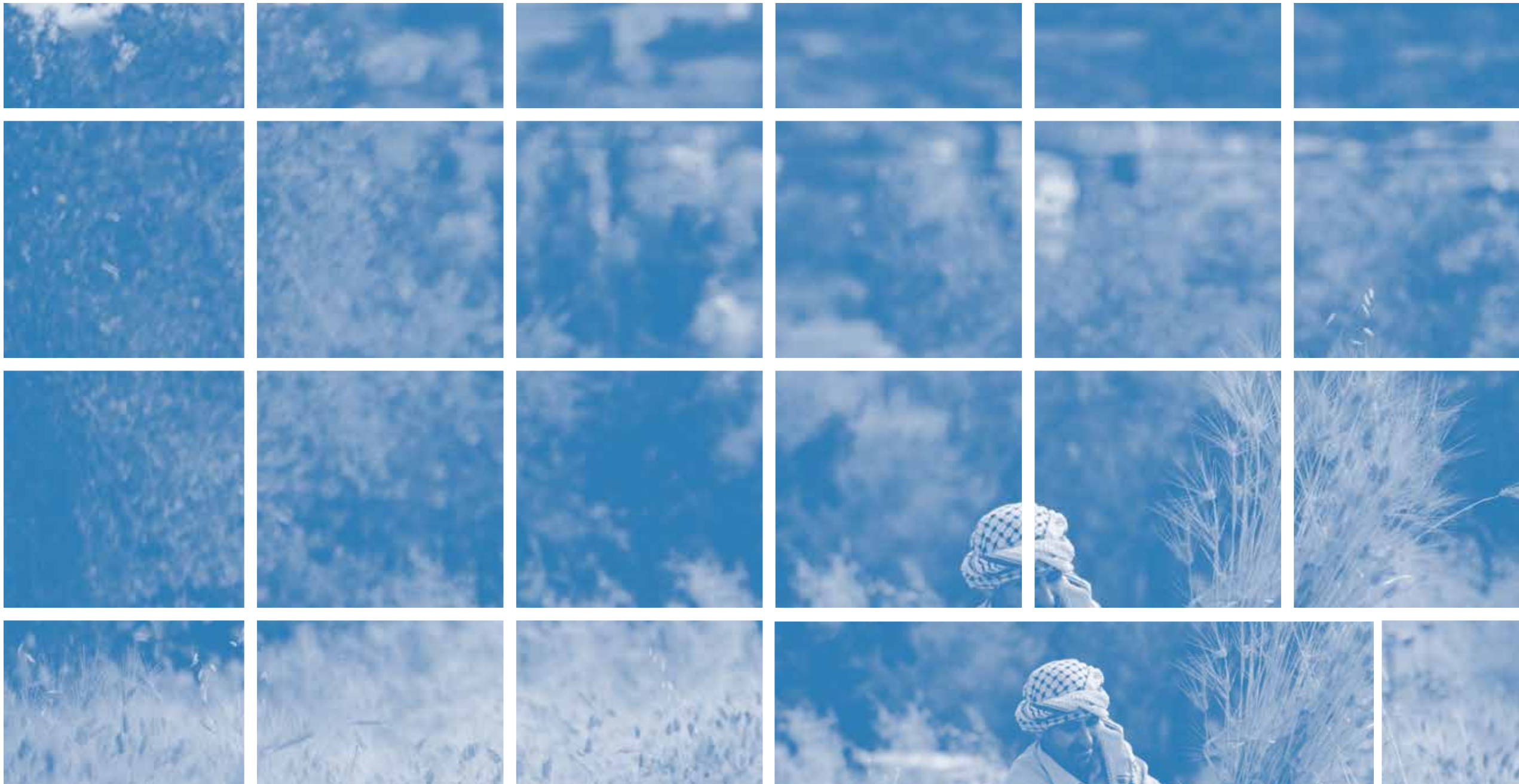


Photo credit: @ATG

(1) **Shtayya**, housing & construction (2) **Taita Leila**, textiles & clothing
 (3) **PETRICHOR Aquaponics**, organic food & agriculture
 (4) **Resign for upcycling Palestine**, upcycling design

(5) **Msader**, renewable energy & energy efficiency (6) **Nexus**, resource efficiency & waste management (7) **Mostadam Eco Design**, organic food & agriculture
 (8) **ATG (Alternative Tourism Group)**, tourism

Photo credit: @Éléphant Vert Maroc



This White Paper reflects the views and experiences of green entrepreneurs, civil society actors, policy makers, support providing organisations, and financiers on the challenges, opportunities, and strategies for the promotion of green entrepreneurship and eco-innovative grassroots initiatives in Palestine. The content is based on individual interviews conducted with 32 key stakeholders representing five relevant categories of actors (green entrepreneurs, eco-innovative grassroots organisations, public institutions, support providers, and financial institutions) between April and May 2018, and the outcomes of a national Synergy Workshop held in Ramallah on 27 June 2018 that brought together 86 individuals from over 77 initiatives and organisations.



4

**Empowerment
of civil society
organisations and
citizens to lead
innovative solutions
addressing
environmental and
social challenges.**



Supporting eco and social grassroots innovations

At SwitchMed we support community-based social eco-innovation initiatives to maximise their influence and impact, thereby contributing to the emergence of more sustainable models of consumption and production. A training methodology is developed to support eco and social innovations and grassroots initiatives on sustainable consumption and production which included a Handbook that provides basic knowledge and understanding on the fields of SCP and eco and social innovations. Furthermore, this Handbook presents challenges and opportunities for civil society organisations and grassroots initiatives aiming to work within these fields. It also helps to inspire and build a practical way of looking at collective projects or initiatives.

An intensive 4-day national workshop is organised in each of the SwitchMed target countries in coordination with our local partners. The attendees are gathered in an inspiring framework in order to develop different spheres of their projects, get inspired by other initiatives and help one another during the particularly participatory sessions. Specifically, the training aims to provide practical expertise in what concerns community initiatives while giving them the opportunity to take important steps in the development of their projects. A key component of the training is the module dedicated to analyse in depth the issues to tackle to start an initiative. Through the practical exercises, the leaders of the initiatives must prototype their projects, develop a canvas model particularly addressing the social eco-innovation within grassroots initiatives and develop a SWOT analysis. On average, 20 community initiatives were shortlisted in each country, making a total of 180 initiatives across the programme as a whole that received the training.

Afterwards, all the trainees have the opportunity to apply for the supporting phase of the programme to receive further coaching and technical support for the development and implementation of their initiatives. Two civil society ecological innovation initiatives are selected in each country. The assessment of the applications is done by a jury composed by the local partners, the local trainers, SCP/RAC and the external experts involved in the development of the training methodology.

The initiatives selected in each country for the support phase benefit from 50 hours of training that includes the development of a “support plan” for their initiative and regular coaching sessions for six months to support the implementation of the initiative. Also external technical or expert support based on the needs identified in the “support plan” is provided and when possible, support for the development of a crowdfunding campaign as well.

In total, 260 change agents and civil society organisations were mapped and, 16 local trainers selected and 8 local partners were selected and trained on-site for the implementation of the training programme. Out of the 570 candidates who submitted an application to take part in the national workshops to train civil society initiatives, 160 people were selected and trained belonging to 80 different initiatives. In the end, 14 initiatives received further support, as explained earlier. Civil society organisations also participated in the Synergy Workshops organised together with the Green Entrepreneurship programme.

Meet our local partners

Our local partner, as selected by SCP/RAC, is an organisation with extensive knowledge of the current situation in Algeria concerning civil society organisations, social movements and empowered communities aligned with sustainable consumption and production and ecological and social innovation as well as experience of organising/managing workshops. The main task is to assist SCP/RAC in identifying and selecting local trainers and potential grassroots initiatives to join our training programme.



Applied Research Institute - Jerusalem (ARIJ)

It is a Palestinian NGO founded in 1990 with its main office in Bethlehem in the West Bank. ARIJ is actively working on research projects in the fields of management of natural resources, water management, sustainable agriculture and political dynamics of development in the Palestinian Territories. ARIJ plays an active role in the local community as an advocate for greater cooperation among local institutions as well as international and non-governmental organisations.

Our local trainers, carefully selected by SCP/RAC as well, have extensive experience in initiating, implementing and evaluating environmentally and socially innovative projects and also have a deep understanding and knowledge of training methodologies based on empowerment, collective learning and a participative approach. At SwitchMed, they are responsible for actively participating in the regional co-creation workshop, together with other local trainers from the participating countries. Local trainers also support their local partner organisation and SCP/RAC in identifying grassroots initiatives and guaranteeing the participation of at least 20 social eco-innovative actors/initiatives in the national workshop. This task also includes the provision of support in disseminating the workshop call through the available channels in order to attract potential actors and initiatives for the national workshop. The trainers are also in charge of facilitating a four-day national workshop with the support and guidance of SwitchMed's Civil Society Empowerment team.

The local trainers participate in the multi-stakeholder process to select the best two initiatives arising in the workshop to receive further technical support. They also provide 50 hours of individual coaching support over 6-12 months, aimed at the development of a support plan to identify technical needs for the proper development and implementation of the project.

Civil society organisations are empowered to act as agents of change and to start community innovations



Applicants
Grassroots initiatives’ representatives submitted an application to receive further coaching and technical support to develop and implement the proposed initiatives.

Trainees
Grassroots initiatives received training at a national workshop. Some of the topics included how to develop an idea for social eco-innovation, obtaining strategy advice, finding out what the grassroots initiatives entail, how to overcome challenges, using the ideas of other participants to identify innovative solutions, identifying solutions for improving governance of the organisation, and exchanging views with other pioneers in social eco-innovation in highly participative discussion sessions.

Initiatives
Represented by these trainees.

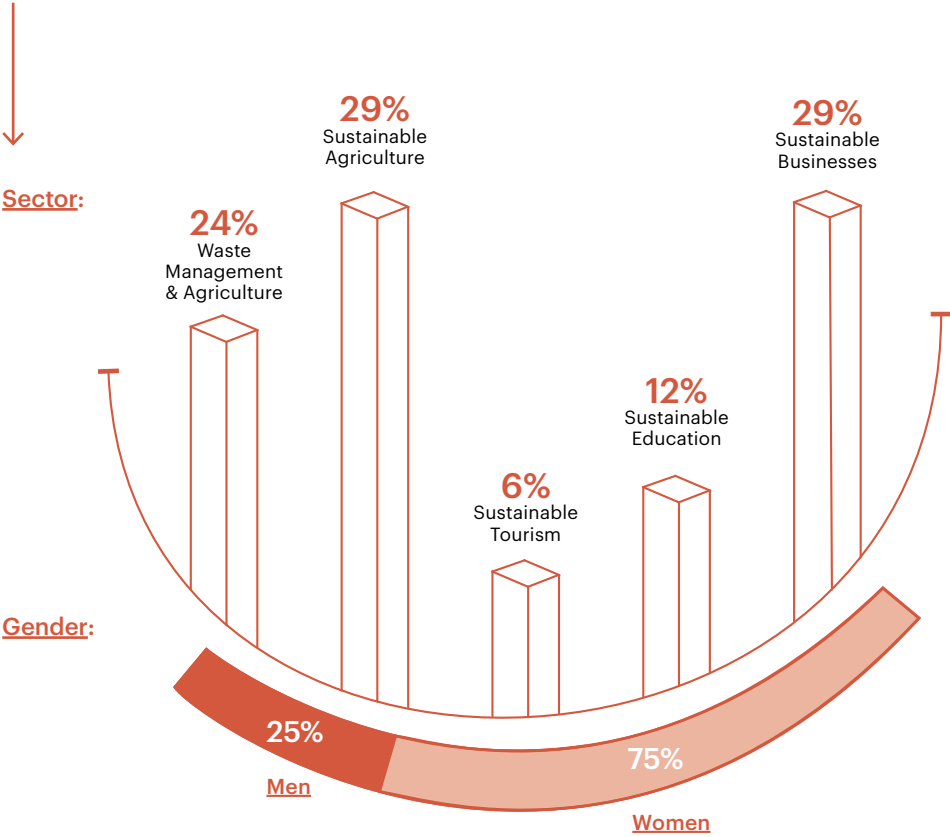


Selected
The grassroots initiatives selected were enrolled in a supporting phase. They received 50 hours of personalised coaching, external technical support tailored to their needs and support to develop a crowdfunding campaign.

↓

(1) Smart solution to food loss: SUN4U
Waste management
The mission is to reduce food loss and food waste in Palestine.
The project aims to increase the participation and employability of marginalised women and people with special needs in processes related to the drying and packaging of market fruit and vegetables prior to expiration.

(2) Merging agro and eco-tourism in Deir Ballut
Sustainable tourism
The mission is to promote responsible tourism and agroecology in order to help the local economy and restore soil fertility.
The project aims to increase farm income and raise awareness about the negative effects of pesticide use by promoting sustainable tourism and agriculture in Deir Ballut.



Healthier alternatives to gelatinous commercial candy products
Sustainable consumption
The mission is to encourage the consumption of healthier, locally sourced products.
The project aims to promote the consumption of locally produced grape juice, pomegranates and dried fruits, presenting a healthy and balanced alternative to harmful dye-based gelatinous products.

Urban organic farming
Sustainable agriculture
The mission is to increase household food security through the domestic production of basic crops.
The project aims to promote organic hydroponic systems for growing food on rooftops, thereby reducing water consumption compared to soil-based agriculture and ensuring household food security.

Organic farming cooperatives
Sustainable agriculture
The mission is to engage and unite farm owners in organic farming cooperatives to promote environmentally friendly farming practices.
The project aims to increase farm income and soil fertility by promoting sustainable farming techniques and eliminating the use of chemicals.

Medicinal herb processing
Sustainable business
The mission is to promote organic farming and medicinal herb processing practices.
The project aims to package and sell medicinal herbs organically grown by the Tamon Cooperative farmers

Food waste valorisation
Waste management
The mission is to promote food waste recycling techniques.
The project aims to reduce food waste by either converting expired food into feed or composting agricultural waste.

Raishad instead of plastic
Waste management
The mission is to offer farmers alternatives to using plastic in greenhouse construction and promote environmentally friendly farming techniques.
The project aims to replace the use of expensive plastics in the construction of greenhouses with a locally produced fine mesh material.

Wastewater treatment and reuse
Waste management
The mission is to promote the adoption of simple technologies for the treatment of household wastewater.
The project aims to treat and reuse household wastewater for agricultural purposes and reduce the discharge of untreated wastewater.

A second life for cardboard
Waste management
The mission is to promote the concept of cardboard recycling.
The project aims to generate income through cardboard collection and recycling and mitigate negative environmental impacts resulting from the practice of burning waste cardboard at landfill sites.

Empowerment of rural women in Palestine
Sustainable agriculture
The mission is to promote the sustainable use of resources and household food security.
The project aims to promote home gardening to produce fresh and processed food items using green and ecological practices.

Sustainable lifestyles
Sustainable agriculture
The mission is to increase awareness with regard to sustainable lifestyles.
The project aims to promote awareness of good environmental practices and positive behavioural change including waste recycling, home-based food processing and storage, composting, renewable energy, and home gardening.

Farm to fork
Sustainable agriculture
The mission is to improve public health by promoting the consumption of fresh, organic, and locally produced food.
The project aims to simultaneously improve food security and increase farm gate income through effective value chain management (farm to fork concept).

A world without plastic
Sustainable consumption
The mission is to switch to a more sustainable lifestyle by reducing the general use of plastics and replacing it with more environmentally friendly alternatives.
The project aims to reduce individual ecological footprints by replacing plastic with biodegradable or reusable materials with a long lifespan; especially locally produced glass.

Recycle, reuse, reshape
Waste management
The mission is to tackle waste by encouraging the 3R concept.
The project aims to create jobs and generate income for reusing, recycling and reshaping disposable glassware.

Smart irrigation
Sustainable transport
The mission is to promote the use of renewable energy for wastewater treatment.
The project aims to promote wastewater treatment and reuse on a domestic scale by using a solar-powered pumping and irrigation system, thereby ensuring food security by facilitating the use of treated wastewater for garden irrigation.

Meet our Palestinian civil society organisations supported



Photo credit: @Luca Volpe

A solution for reducing food waste while providing income is now a reality

Sun4You is a Palestinian initiative founded in 2017, with the aim of increasing the participation and employability of marginalised women and people with special needs in and around Jerusalem, particularly in processes related to the drying and packaging of unsold market fruit and vegetables.

Organic farming and agricultural sustainable practices represent another area of work being carried out by grassroots initiatives in the MENA region, aligned to work related to education and sustainable consumption. The three founders of the Palestinian Sun4You enterprise have found a smart way to reduce food waste while providing a source of income for many marginalised women. Led by the Jerusalem Women's Forum, Sun4You members use a solar energy system to dry unsold fruits and vegetables collected from markets that would otherwise be disposed of in order to sell them as dried products. "Thanks to SwitchMed, we were able to work with the Jerusalem District Electricity Company to build our solar oven," explains Saeda Ibrahim, one of the founders. "Our SwitchMed mentor, Saher Khouri, helped us to connect with strategic partners like the Jerusalem Electricity Company and also to select local experts according to our needs," says another of the founders, adding that "a team of experts on solar energy and electrical engineering trained us on the materials, the tools and the design of the solar oven so we could build the first prototype together." Moreover, the whole Sun4You team received training from a second expert on how to dry fruits and vegetables in the oven, covering issues such as which indicators needed to be monitored, among many other criteria. The Sun4You team members then passed that knowledge on to a further 10 low-income women from Jerusalem. "We have also identified 10 markets in the villages around Jerusalem in order to establish a fruit and vegetable collection system," Khouri adds.

The initiative is addressing an important environmental problem, as fruit and vegetable waste represents a burden on landfill sites and generates greenhouse gas emissions. In addition, Saeda Ibrahim says, "we have already contacted schools, as they are one of the target markets for our products. We would like to offer schools healthier food options as an alternative to the chocolate bars and crisps being consumed there now."

Recycled cardboard packaging will be used to package the dried products. "The most important thing is that the initiative will create jobs in the drying and packaging sector amongst marginalised women, so that they can become financially independent and economically productive," says Saeda Ibrahim. "We have received pivotal technical and managerial support from SwitchMed and we are already reaping the benefits." Since their involvement in the programme, the three female founders have actively participated in a variety of international conferences, forums and events, such as those in Egypt and Cyprus.

If they manage to secure funding, Sun4You will be building a second solar oven in Jerusalem to expand the scope of their mission. They aim to apply for EU or other international funding in the near future. A future which looks to be very bright.



Photo credit @Charles Deluivo

Adopting sustainable farming practices and sustainable tourism for a better world

Deir Ballut is a relatively large village, with an appreciable industrial focus. Donkeys and tractors are almost as common a sight as people. The village forms part of the Salfit governorate and is located 41 km south-west of the large city of Nablus. Deir Ballut is surrounded by olive groves and boasts stunning, panoramic views. The rock-cut tombs to the south-west of the village and its tumbledown stone huts stand as evidence that this was once a place of great importance. However, it is located far from the main West Bank city hubs, such as Ramallah, Nablus or Hebron and needs social and economic support.

This is considered the first female-led ecotourism initiative in Palestine. The cooperative is currently made up of 21 women and five men, all local residents of Deir Ballut. The organisation, recently named Al-Ibdaa, which means creativity, encourages farmers, citizens and students to adopt sustainable farming practices and promotes locally produced healthy food by connecting farmers with consumers. The initiative, which received technical support in relation to the assessment of agroecological practices and research into potential ecotourism business opportunities in the area, also promotes ecotourism and raises awareness about the region's unique natural and historical heritage. The founder of the initiative, Amenah Favez Salim Mustafa, explains that "we also aim to develop an ecotourism centre that attracts national and international visitors to the village and acts as a source of income and job creation."

Technical assistance was provided by two external experts as part of the SwitchMed training programme: one offering advice on organic agriculture practices and the other on ecotourism entrepreneurship. "The first local expert provided a service for assessing agroecological activities appropriate to the ecological conditions of Deir Ballut, as well

as the identification of the materials, equipment and tools required by the initiative. All the members of the cooperative received training on how to prevent the use of chemicals in agriculture, reviewing different options to minimise production costs and highlighting the importance of using natural assets, like organic fertilisers. We have worked hard to create new partnerships and strengthen our links with key organisations such as the Palestinian Agricultural Relief Committees (PARC), one of the most important agricultural organisations in Palestine, with whom we are developing several projects."

In terms of ecotourism activities, a second area of technical support provided by SwitchMed was developed by Issa Elshatleh, an expert with extensive experience in alternative tourism, with a view to producing a social tourism businesses plan. The idea behind this initiative is to boost the local economic development of the Deir Ballut village and contribute to the conservation of the local environment and cultural heritage. The founder says, "at the moment we are currently developing a plan with her to be able to welcome groups from outside Deir Ballut, namely solidarity groups from abroad."

Slowly but surely, the Al-Ibdaa enterprise is making a real change in the Deir Ballut region, investing in the future and bringing stability and prosperity to its residents.



Photo credit @Near East Foundation on Flickr

Enabling access to finance for green start-ups and entrepreneurs by mobilising impact investment: The Switchers Fund



Photo credit: @Bernat Mestres (White Horse)

Financial instruments for innovative green businesses

At SwitchMed we are supporting the region's green entrepreneurs by enabling access to finance, providing direct finance to new and established green entrepreneurs and mobilising local investors and enterprise support programmes as well as European resources through the newly created SwitchersFund.

The Switchers Fund's mission is to support innovative green entrepreneurs in the development of their projects, first through grants to test new ideas and attract new funders, and as these projects grow by introducing adapted financial products such as concessional loans and ultimately through equity participations.

In the current situation where private and public financial institutions have difficulties to channel their investments to Medium and Small enterprises in our partner countries in Africa and the EU Neighbourhood region, the SwitchersFund core business lays at facilitating international capital flows from investors to entrepreneurs to facilitate, thus contributing to achieve the Sustainable Development Goals. As the first activity of the Switchers Fund, the Call for OSCE GEMS Award, granted a total of 90,000 euros in six South Mediterranean countries, 15,000 euros in each country to the best business idea. The OSCE GEMS Award was the result of the partnership between the Organisation for Security and Cooperation in Europe (OSCE) and the SwitchersFund, and was established thanks to the support of the Italian Government.

In addition to this, the Business Support Services Facility complements the SwitchersFund's financial instruments by supporting innovative entrepreneurs via capacity building initiatives, and, in general, enhancement of their access to finance, which focuses on the following actions: green business model and plan development, mentoring and technical expertise, crowdfunding campaign support a "Green Start-ups Meet Investors". The latter, that connects start-ups with the right investors

during matchmaking events, is a national event held in each beneficiary country. By covering the major issues that an experienced investor will look for (and expect) before they invest and getting to know the upcoming start-ups to the international investors' community, SwitchMed aims at mobilising investment capital to help with the growth of green business in the Southern Mediterranean. Prior to the pitch, the green entrepreneurs that are selected receive 30 hours of capacity building session to improve their communication skills and to prepare their business to be evaluated by the financial players. The stages of the investment process are also taught during that session. In the aftermath of the events, an individual feedback on the strengths and weaknesses of the project submitted with a monitoring of the contacts made with the investors during the meeting is offered to the green entrepreneurs with the aim of improving their capacity to meet the appropriate financial players. In total, 245 applicants submitted an application to join the Green Start-ups Meet Investor, 67 green entrepreneurs were selected and coached to give their pitch in front of investors. A total of 79 investors attended the events. A total 2,150,000 euros potential investment raised by the entrepreneurs is expected by the end of the programme.

An on-line financial toolkit for the green entrepreneurs, whether they are in ideation phase or already fully operational companies, was also developed to help them to better access to finance in the MENA region. The practical tool allows discovering their finance opportunities and all the necessary instruments and knowledge to approach potential investors, and determining, in 4 easy steps, the right funding strategy for their green business.

These activities, carried out by SCP/RAC, are jointly done with the European Federation of Ethical and Alternative Banks (FEBEA) and the Union for the Secretariat of the Mediterranean (UfM).

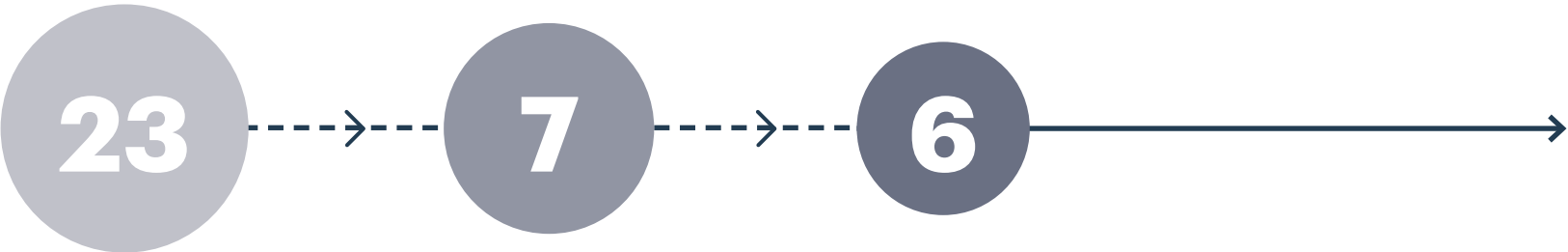
Meet our service providers

Our local service providers, carefully selected by the SCP/RAC, are organisations with extensive experience in supporting green entrepreneurs in business development and positive impact assessment, as well as providing them with the necessary support in access to finance. These organisations are selected on the basis of their capacity to empower the green entrepreneurs and their knowledge of financial opportunities in each country.

The main task of these organisations is to develop and implement capacity-building sessions on access to finance and improvement of the entrepreneurs' communications skills. Subsequent to training, the green entrepreneurs have the opportunity to pitch and showcase their innovative solutions to potential investors during a specific national event.

Local providers also supported SwitchMed in the development of the first green regional portfolio. The green portfolio lists the profiles of each entrepreneur and has been disseminated among potential investors.

Access to finance capacity building programme for green entrepreneurs



Candidates who applied to join the capacity-building programme.

Green entrepreneurs who attended the capacity-building programme.

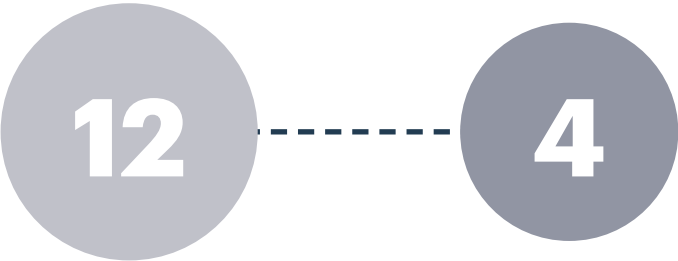
Selected green entrepreneurs to pitch during 'Green start-ups meet investors' December 11th 2017.

30h

Capacity-building for green entrepreneurs, who are guided through the stages of the investment process, to prepare their businesses for evaluation by financial players and improve their communications skills for more effective promotion of their business idea.

50%

Of the green entrepreneurs participating were female.



Financial actors identified in Palestine.

Representatives of banks, guarantee funds, business angels and venture capital attended the "Green start-ups meet investors" event as potential investors.

Discover our 7 green entrepreneurs who pitch during the “Green start-ups meet Investors” event

Name of the company	Business stage			
Aisha Design			●	
E-Waste recycling		●		
Citizen of the world		●		
Tafkeek		●		
Biodisel		●		
Waste by waste		●		
Masar Hibrahim			●	
	Ideation	Early stage	Growth	Scale

Enabling access to finance for Green entrepreneurs in Palestine

The concept of Green Entrepreneurship is still new in Palestine. The idea that starting an innovative business can be a way to address environmental issues is only beginning to spread among young Palestinians.

Palestine has a wide spread financing system that includes a strong banking system as well as a strong and well-structured Microfinance system. Within the Palestinian banking system, there is only one programme dedicated to financing Green Entrepreneurs, with a portfolio of 4.4 million euros. This shows that the level of financing available for this segment is clearly insufficient.

Most bankers interviewed during the mission were open to the idea of having a special programme for Green Entrepreneurs, but they lacked knowledge in this field. Banks could use the idea of green loans for image and public relations, and hence it is important for green start-ups to approach banks and offer them training on environmental issues, in order to encourage them to offer green loans.

There is a general lack of awareness and knowledge on the concept of Green Entrepreneurship in Palestine as expressed by the Green Entrepreneurs themselves, by employees in financial institutions, by the private sector and the government. In this sense, a wide spread campaign is needed in Palestine at all levels, including a public campaign to raise awareness and show the impact of Green Entrepreneurship on both the economy and society.

To concisely illustrate the situation in Palestine, the figure below highlights the main financial products available to Green Entrepreneurs in each phase of the creation of an enterprise (ideation, early and growth stage), with an example of financial institution providing such products. Furthermore, there is a lack of incentives in all different areas, from government to banks. Palestine has an investment incentive programme, and a dedicated administration to implement it. The investment incentive programme needs to be broadened to include incentives for Green Entrepreneurship and projects with high environmental value.

green start-ups in Palestine are likely to start their activities through self-financing or by applying to grants. Early stage investment is not really an option for them since incubators, accelerators and investment funds are focused on ICT-related projects only.

In regards to lending, green start-ups will be treated by banks as any other loan applicant, when they try to access finance and will need to show a positive track record and sufficient collaterals. Green Entrepreneurs who are active in agriculture will find even more difficulties in accessing finance, since all financial institutions are hesitant to provide loans to this sector.

Given this ecosystem, Green Entrepreneurship is facing some challenges. However, they can be overcome by a mix of awareness raising among financial organisations and policymakers, which can in turn make the conditions more favourable to green start-ups.



Photo credit: @Toa Heftiba

Support eco and social innovations of green entrepreneurs and Switchers through a mix of grants, loans and equity participations.
Join now
The Switchers Fund
and contribute to the first MENA impact investing Fund.

6

**Exchanging,
synergising
and engaging
with business
& investment
networks to
scale-up demo
actions.**



Supporting the visibility, effectiveness, long-term sustainability and impact of the SwitchMed programme

The SwitchMed Networking Facility, led by SCP/RAC, aims to contribute to the visibility, effectiveness, long-term sustainability and impact of the different activities carried out under the SwitchMed programme. In order to deliver this, the Networking Facility focuses on three main areas of activity:

Firstly, we enable extensive communication and networking and facilitate the exchange of best practices and lessons learnt among SwitchMed partners, connecting them with key external stakeholders. We have been working closely with 32 strategic partners in order to achieve common goals. We have also developed the SwitchMed Action Network, an online platform with a mobile app, to exchange knowledge related to SCP initiatives taking place in the Mediterranean, provide inspiration through disruptive innovations integrating closed-loops and collaborative consumption business models, showcase stories and participate in facilitated in-country stakeholder dialogues. It also functions as a database of experts. Another major activity is the organisation of SwitchMed Connect, a gathering of Mediterranean stakeholders to build synergies, exchange knowledge and scale-up eco and social innovations. Leading start-ups and entrepreneurs, industry agents, initiatives, change agents, policy and financial institutions working on applications related to productive, circular and sharing economies in the Mediterranean come together in Barcelona every year. In total, three events have been held, bringing together more than 1,000 stakeholders from 16 different countries.

Our second area of activity involves encouraging the scaling-up of activities and impact, with a focus on harvesting lessons learnt in order to replicate demonstration pilot projects, thereby contributing to activities' long-term sustainability and increasing visibility with regard to the impacts effected during the programme. To that end, the Networking Facility has promoted the production of regional and national scaling-up roadmaps that aim to replicate and continue the green innovations and demo activities beyond the lifetime of the programme. The Networking Facility has designed a general theoretical framework for scaling-up analysis based on the identification of a specific strategy tailored to the SwitchMed programme. In order to gain traction with regard to

sustainable consumption and production and generate greater impact, the scaling-up of the SwitchMed programme has been defined as “expanding, adapting and sustaining demonstration actions in more locations and over time to reach beyond the original target groups, with the ultimate vision of sustainable consumption and production being mainstreamed into everyday economic life across Southern Mediterranean countries”. For instance, the compelling outcomes and impact achieved by the SwitchMed Green Entrepreneurship programme indicate the growing demand for business support in Southern Mediterranean countries for the creation of circular economy business models, and clearly demonstrate the potential benefits of these business models. As the full potential equates to the creation of millions of jobs, effective strategies should be explored for scaling up the impact achieved.

The third line of action includes reinforcing the internationalisation of green start-ups and SMEs through closer cooperation between businesses and investment networks in Europe and Southern Mediterranean countries. As such, the Networking Facility has mapped the range of financial instruments available in four selected countries (Egypt, Lebanon, Tunisia and Morocco), as well as in Europe, and has organised seminars with national and international investors to discuss the barriers that restrict access to markets and sources of finance.

Despite the results for the relevant countries being collected at national level, it is important to process the results achieved across beneficiary countries and to provide a regional perspective; thus we collect data and facilitate information exchange across all SwitchMed activities, primarily at regional and thematic levels, communicating these to external stakeholders in line with the programme identity, as has been done since the start. Indeed, well-proven methodologies, tools and initiatives that avoid unnecessary efforts are used or carried out on a regular basis.

Meet our strategic partners

We work in strategic partnership with international and national organisations that are very experienced and active in addressing the shift to sustainable consumption and production in the Mediterranean region. Our strategic partners are like-minded organisations to facilitate the exchange of ideas, build bridges and synergies and foster cooperation among diverse organisations in different countries with shared goals.

Our strategic partners represent a diverse range of organisations whom we trust to help us execute our mission. Their expertise enables us to do far more than we could alone, and their passion and talent inspire us.

Our strategic partners have long-term commitment in the Mediterranean region have deep technical expertise on sustainable consumption and production work on a broad range of topics such as eco and social innovation, collaborative economy, life cycle assessment, green entrepreneurship business models...involve the Mediterranean countries in project design and implementation share the same values and vision for the region with us.

Our current strategic partners are:



Credits

Concept
SwitchMed

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