

MEDA is supporting **Karak Star**, a local recycling business, to install and implement Jordan's first innovation in recycling plastic to produce a cheaper carbon-reduced synthetic fuel while building a network of women entrepreneurs who will serve as plastic waste collectors and sellers.



### Quick Facts

**Sector:** Clean Technology - Recycling Plastic Waste for Alternative Energy

**Initiative Duration:** 12 months

### Problem Statement

In Jordan, like in other parts of the world, plastic used in shopping bags, packaging, farming and construction poses a big burden on the environment. Approximately 6,000 tons of agriculture plastic mulch waste is produced in the Jordan Valley alone every year. The plastic pollution problem is so rampant that 90% of livestock deaths in the Jordan Valley are caused by shredded plastic ingestion. Moreover, landfills are being increasingly overburdened with plastic waste as recycling operations are not economically feasible due to Jordan's very high energy costs.

### Business Opportunity

Karak Star, a local recycling business, can reduce the impact of 1,700 tons of Plastic & Nylon waste per year by introducing pyrolysis technology to Jordan. Pyrolysis technology recycles plastic to produce a synthetic fuel through the chemical decomposition of organic (carbon-based) materials with the application of heat. Every month, the company will recycle 140 tons of plastic mulch, plastic bags, waste plastic from landfills and turn it into 110 tons of synthetic fuel, which will be used to power at a considerably lower cost not only the existing Karak Star factory but also neighbouring businesses in the Al Hussein Industrial Estate in Karak. The company expects to employ hundreds in the informal sector as waste pickers, develop a network of women waste collecting entrepreneurs, reward agriculture workers for recycled mulch plastic, and use plastic waste from factories across the country. It will also produce a charcoal residue which could be sold to cement or steel factories.

## Activities to be undertaken with MEDA support



### Purchase and installation of a 6-ton Pyrolysis Line

Purchase and installation of a 6-ton Pyrolysis Line to generate cheaper carbon-reduced synthetic fuel.



### Establish a collection and sales network

Work with women community-based organizations to engage at least **780 women** to overlook collection and storage of mulch plastic in preparation for weekly pick up by Karak Star.



### Build a plastic waste market

Network and educate communities (through their religious leaders), **local landfills and factories in industrial zones** to share the company's intention to purchase their plastic waste and how the plastic should be sorted. Advertise via social media and other channels to expand interest and knowledge of the plastic waste market.



MEDA is an international economic development organization operating in over 60 countries with a mission to create business solutions to poverty. The Jordan Valley Links Project and its partners will economically empower 25,000 women and youth in the Jordan Valley. Through strategic partnerships with the private sector, the project aims to increase the contribution of women and youth to Jordan's economy by improving the business, environmental and gender performance of companies in select sectors: Food Processing, Financial and Non-Financial Services, Tourism, and Clean Technologies.

 [meda.org](http://meda.org)

[karakstar.com](http://karakstar.com)

 [jvl-info@meda.org](mailto:jvl-info@meda.org)

 [facebook.com/JordanValleyLinks/](https://facebook.com/JordanValleyLinks/)



Canada  MEDA