

ENERGY EFFICIENT BIO FUEL PRODUCED BY BIOFIRE

RECYCLING AGRO-FORESTRY WASTE IN TUNISIA

Since 2015 the [Chanouf Farm-Biofire company](#) in Tunisia manages an agroforestry unit to produce organic charcoal and biomass energy for cooking and heating, recycling the pear and olive tree waste.

The business aim of Biofire is to give people access to cheaper energy solutions and save forests that continue to dwindle due to the use of wood fuel. Bio fuel produced by Biofire can be used in fireplaces, barbeque, wooden oven and it is safer and much cleaner compared to the traditional one.

The Chanouf farm is a family-managed agricultural enterprise located in Manouba, north of Tunisia, dedicated to the production of pears and olives since 1995. The new production line of the farm started focusing on exploiting the abundant organic material biomass which is found in wood, bark or straw and recycling this waste to make flammable coal briquettes and wood charcoal as highly efficient and ecological alternatives to firewood.

In 2015, the Chanouf Farm-Biofire company has been created by Murad Chanouf and Radwan Al-Ayadi. A production plant has been installed, belonging to the Farm, for the processing of new products through three areas equipped with their respective machinery: the first one where tree waste is recovered, the second one where pressurizing takes place and the third one for coalification.

The company has started its activities with the support of 12 employees. There are three main stages of production: first, wood waste is collected from firewood, leaves and bark. Then it is grinded, dried and pressed, which results into two main products: charcoal briquettes and ready-to-use coal. Finally, charcoal residue is again subjected to pressure and turned into pressed coal.

Adopting these processes Biofire produces high-performance, eco-friendly, low-cost biomass briquettes, which enables the company to expand its sources of income and extend its zone of activity beyond the harvesting seasons. The fuel produced by Biofire is cheaper than ordinary charcoal, gas or other energy sources and it is also 30% less humid than ordinary coal. The process to obtain the bio-charcoal is carbon neutral.

The Chanouf Farm Biofire involved in the surrounding area a large number of waste collectors who provide the farm with agroforestry waste in exchange for a salary, thus creating jobs and contributing to the disposal of the waste generated by the agricultural production. Biofire also involves other farmers and wood factories helping them to manage their waste and selling it to the company for the recycle, generating for them an extra revenue.



Based on information provided by an article published in 2018 by the [Sustainable Development Blog of the United Nations](#), strengthened by the success of its products, Biofire has also made promising investments in the search for other products that are part of ecological agriculture and sustainable protection of the environment. Thanks to the work of researchers, they discovered that charcoal residues can be transformed into vegetable tar. Aside from being a natural fertilizer, tar can be used as a natural pesticide effectively eliminating diseases affecting fruit trees

In 2018 the Chanouf Farm-Biofire company won the [National Energy Globe Award Tunisia](#). In 2018 the Chanouf Farm-Biofire company has also been recognized as one of the eco and social innovations in Tunisia by the United Nations Industrial Development Organization (UNIDO) in the framework of the [SwitchMed programme](#) funded by the European Union.

In the framework of the 2019-2028 UN Decade that celebrates the great contribution and great potential of [Family Farming](#), the Chanouf Farm-Biofire company shows how a small business can make a significant contribution to the sustainable management of the resources of the territory where it operates and across the country. In fact, Biofire has managed to achieve important results by:

- Extending beyond the harvesting seasons and diversifying the traditional activity of the farm thus strengthening its economic sustainability;
- Implementing circular economy practices that allow to give a new value to the residues of agricultural production, reducing the hazards they cause in the environment as fires especially during the summer months, and transforming the costs of their disposal into new economic resources;
- Creating an environmentally friendly and highly efficient alternative to the use of firewood, one of the major contributors to deforestation, offering families and restaurants in the country its coal briquettes for cooking and heating.

In addition to the specific results mentioned, the Chanouf Farm-Biofire company has also helped creating innovation in the country, investing in new production processes and products that are part of international trends towards sustainability and correcting common beliefs that attribute these skills only to large companies.

To know more

[Biofire in Facebook](#)

[Chanouf Farm-Biofire in un.org website](#)

[Article in impactjournalismday.com](#)

[Chanouf Farm Biofire in theswitchers.eu website](#)

[SwitchMed Magazine 2018 Tunisia in UNIDO website](#)

[National Energy Globe Award Tunisia](#)

[Article in afrik21.africa](#)

[Article in jeuneafrique.com](#)

[Article in sohow.be](#)



[Article in leconomiste.com](http://leconomiste.com)

[UN Decade of Family Farming](#)

