



Project funded by  
EUROPEAN UNION



*Facility pack, part 1*

# LOW-COST PORTABLE STOVE

*FOR COOKING AND BIOCHAR PRODUCTION  
FOR CAMPING AND OUTDOOR ACTIVITIES*

## ABOUT PORTABLE STOVE

The stove can be used for camping and activities organized outdoor, for cooking, and producing biochar. The main advantages of the oven of this model are its compactness and low weight, which allows it to be taken to nature, as well as storing it without taking too much space. During stove production, special technology is used to achieve a perfectly flat opening under the cauldron, which contributes to a uniform fit of the cauldron. When the fire burns, it is evenly warmed up from all sides and thus it does not cool down quickly. The stove is also equipped with a chimney, which provides comfort during its use. The advantage of the stove is that it is similar to the model of wood stoves available in the rural areas of Moldova and Ukraine. The biochar is obtained while cooking the food.



Owing to its relatively low weight and easy to handle (the cauldron and the stove chimney pipe can be removed and carried separately), the stove is easy to carry to any convenient place and taken to any field place.

## WHAT MATERIALS CAN BE USED?

The biochar can be obtained from any type of dry organic waste (fruit stones, feather, bones, agricultural remnants etc.)



# HOW BIOCHAR IS OBTAINED IN THE PORTABLE STOVE?

The dry waste material needs to be put into a metal box that has some holes on the top or bottom, closed to avoid pressure. The gas produced inside the box as a result of pyrolysis (limited oxygen) will maintain the fire, thus reducing the amount of wood burned and therefore, reducing CO<sub>2</sub> emissions. At the same time, the biochar produced is an important component to be applied to the compost to increase its stability



The simplest and cheapest way is to use aluminum foil boxes, which are covered with a lid, with some spaces for gases to be emitted.



## WHERE CAN THE BIOCHAR BE APPLIED?



Biochar can be added to compost to improve its performance, humification process, enhance microbial diversity and activity in the composting process and reduce greenhouse gas emissions. Addition of biochar contributes also to a faster temperature increase. Since biochar also enhances the water-holding capacity of the compost, the desired moisture content of most composts in the range of 50–60% w/w is ensured when biochar is added at the beginning of the composting process. Biochar amendment to the compost also immobilizes potentially toxic metals and organic pollutants thus making compost a safer product.