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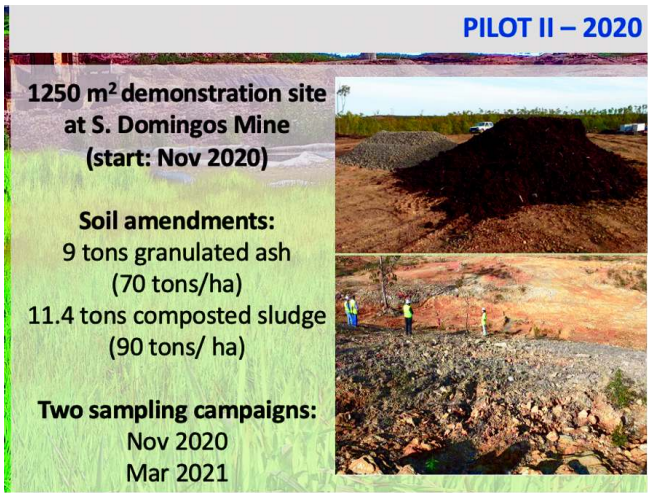
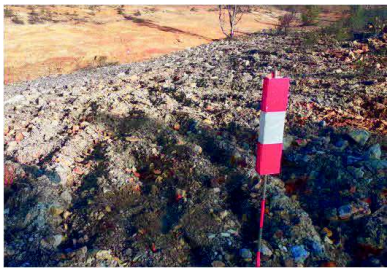
January 2021

Newsletter of Project LIFE No_Waste

LIFE14 ENV/PT/000369 - MANAGEMENT OF BIOMASS ASH AND ORGANIC WASTE IN THE RECOVERY OF DEGRADED SOILS: A PILOT PROJECT SET IN PORTUGAL

>>> In the Spotlight: Second Pilot Project implemented at Mina de S. Domingos revealed excellent results!





<-Before

After->

Images of spontaneous vegetation growth after application of soil amendments

>>> Economic, Social, and Environmental viability of project solutions

Strengths:

- LIFE No_Waste project demonstrated that biomass ash is a relevant soil liming agent, plant nutrient source, soil conditioner and a stimulant of soil microbial activities
- Application of biomass ash granules to soils allows to support plant growth on otherwise un-vegetated soils
- Biomass ash re-use allows to simultaneously value waste and to recover degraded soils
- Recycling of biomass ash will boost innovation and create new market opportunities for SMEs while at the same time reducing waste and environmental collateral damage

Weaknesses:

- Neither by-product nor end-of-waste criteria for biomass ash were developed yet. End-of-waste criteria specify when certain waste ceases to be waste and obtains a status of a product (or a secondary raw material). These criteria must be defined and published in the Official Journal of the European Union (OJ) to allow the use of biomass ash as input in recovery operations, treatment processes and techniques, or component materials in EU fertilisers.
- Additional work needed on public acceptance aspects (re-use of wastes) to enable the widespread re-use of biomass ash in EU countries

Opportunities:

- Growing quantities of ash wastes are being generated
- Technological applications developed by LIFE No_Waste allowed to produce stable waste-based granulated materials with long-term soil correction capacity and to allow controlled release of plant nutrients to ensure safe use
- There is a high replication potential: once the waste recovery technology is implemented and licenced it is possible to expand to other markets (e.g Spain) with low additional investment
- LIFE No_Waste deliverables support the classification of biomass ash-based materials as a by-product
- The New Fertiliser Regulation (2019/1009) harmonises rules set for products derived from waste organic materials and by-products (Dec Lei nº103/2015 in Portugal)

Threats:

- The mechanism for de-classification of biomass ash waste as a by-product is extremely lenghty in Portugal
- Homologation process through Dec Lei nº103/2015 is only temporary and focus on specific applications
- Administrative burdens related to shipment, transport and trade that are redundant for environmentally safe materials.

"The technical advances and the economic, social, and environmental viability study developed in this project, established that the developed ash-based materials have an interesting potential to be applied in large-scale recovery of degraded soil. There are thousands of hectares of soils in Portugal alone, for which this solution is feasible.
One interesting option is the implementation of a centralized ash-processing plant, which allows managing biomass ash, and from there transport it for areas in need of recovery."

Visit our website for more!