Ash as construction material in forest road maintenance



The ashes can be used in a road building among gravel. The use of ash from neighboring heat plants reduces the use of natural aggregates. The use of ash in the construction of the road has been limited, as it is currently subject to environmental permits.
In the forest and energy industries, burning wood produces a lot of ash, which is placed in landfills. The forest industry alone generates more than 300 000 tonnes of exploeable ash every year. The increase in wood energy increases the amount of ash even further. Current measures to benefit from the use of ash do not correspond to the principles of sustainable consumption and production. It would be essential to influence the legislation in order to ease the utilization of ash. It is important to perform carrying capacity measurements and research and test different mixtures of gravel and ash. The environmental issues need to be surveyed.

In Finland there are 135 000 km of forest roads where maintenance is necessary for wood procurement. According to the National Forest Programme 2015, forest car roads should be upgraded to 4 000 km annually. In the construction of roads, cost-effectiveness is most essential. The biggest challenge in most cases is the availability of affordable gravel or crushing near the forest road project. Utilization of ash as material for road construction and maintenance has produced excellent results in terms of both the technical suitability and the environmental impact.

DETALHES

ORIGEM DA MADEIRA

Floresta

TIPO DE MADEIRA

Tronco

TIPO DE MADEIRA EM CAUSA

Stemwood, energy wood

IMPACTE NO AMBIENTE E BIODIVERSIDADE

Positive: less waste from production side streams

IMPACTE NAS RECEITAS

Positive

POTENCIAL DE EXPLORAçãO

--

HUB

Pólo Norte

IMPACTE ECONOMICO

Positive

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

Knowledge, research and testing of special mixtures

POTENCIAL DE MOBILIZAçãO

Not possibile to assess

SUSTENTABILIDADE POTENCIAL - VALOR

--

FACILIDADE DE IMPLEMENTAçãO

Easy

FACILIDADE DE IMPLEMENTAçãO

--

PRE-REQUISITOS CHAVE

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO

--

IMPACTE NO EMPREGO

New business from utilization of side streams and waste

CUSTOS DE IMPLEMENTAçãO (EURO - EUR)

--

MAIS DETALHES

DESAFIO ABORDADO

2. Melhorar as infra-estruturas e a capacidade dos actores públicos

DOMíNIO

Cortes, infraestruturas e logistica

Industrias do sector florestal, bioeconomia circular

Industria da madeira para energia

TIPO DE SOLUçãO

Produtos biodegradáveis e reutilizaveis

PALAVRAS-CHAVE

--

SOLUçãO DIGITAL

Não

INOVAçãO

Sim

PAíS DE ORIGEM

Finlândia

ESCALA DE APLICAçãO

Local

ANO DE INíCIO E FIM

--

DADOS DE CONTACTO

PROPRIETáRIO OU AUTOR

Tapio Oy

Samuli Joensuu

samuli.joensuu@tapio.fi

https://tapio.fi/briefly-in-english/

REPóRTER

REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

https://tapio.fi/projektit/arvo-tuhka-hanke-tuhkan-maarakentamisen-uudet-arvoketjut/

RECURSOS

--

WEBSITE DO PROJETO

--

REFERêNCIA AO PROJETO

--

PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood

DATA DE ENTRADA

17 Set 2019

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY