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.

DETALLES

ORIGEN DE LA MADERA

Bosque

TIPO DE MADERA

Madera en rollo

TIPO DE MADERA AFECTADA

Stemwood, energy wood

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

Positive: less waste from production side streams

EFECTO SOBRE LOS INGRESOS

Positive

POTENCIAL DE EXPLOTACIóN

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HUB

Eje Norte

IMPACTO ECONóMICO

Positive

CONOCIMIENTOS ESPECíFICOS NECESARIOS

Knowledge, research and testing of special mixtures

POTENCIAL DE MOVILIZACIóN

Not possibile to assess

POTENCIAL DE SOSTENIBILIDAD - VALOR

--

FACILIDAD DE APLICACIóN

Easy

FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN

--

PREREQUISITOS CLAVE

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

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EFECTO SOBRE EL EMPLEO

New business from utilization of side streams and waste

COSTES DE IMPLEMENTACIóN (EURO - €)

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MáS DETALLES

RETO ABORDADO

2. Mejorar las infraestructuras y la capacidad de los agentes públicos

DOMINIO

Aprovechamiento, infraestructura, logística
Industrias forestales, economía biocircular
Industria de la dendroenergía

TIPO DE SOLUCIóN

Productos circulares y de base biológica

PALABRAS CLAVE

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SOLUCIóN DIGITAL

No

INNOVACIóN

Si

PAíS DE ORIGEN

Finlandia

ESCALA DE APLICACIóN

Local

AñO DE INICIO Y FIN

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REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

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

RECURSOS

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SITIO WEB DEL PROYECTO

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REFERENCIA DEL PROYECTO

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PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood

FECHA DE MENSAJE

17 Sep 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