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.

DETAILS

HERKUNFT DES HOLZES

Wald

ART DES HOLZES

Stammholz

ART DES BETROFFENEN HOLZES

Stemwood, energy wood

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT

Positive: less waste from production side streams

EINKOMMENSEFFEKT

Positive

VERWERTUNGSPOTENZIAL

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NABE

Nördliches Drehkreuz

WIRTSCHAFTLICHE AUSWIRKUNGEN

Positive

SPEZIFISCHES WISSEN ERFORDERLICH

Knowledge, research and testing of special mixtures

MOBILISIERUNGSPOTENZIAL

Not possibile to assess

POTENZIAL FüR NACHHALTIGKEIT - WERT

--

LEICHTE IMPLEMENTIERUNG

Easy

LEICHTE IMPLEMENTIERUNG - BEWERTUNG

--

WICHTIGE VORAUSSETZUNGEN

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE

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ARBEITSPLATZEFFEKT

New business from utilization of side streams and waste

KOSTEN DER IMPLEMENTIERUNG (EURO - €)

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MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

2. Verbesserung der Infrastrukturen und Kapazitäten der öffentlichen Akteure

DOMäNE

Holzernte, Infrastruktur, Logistik

Forstbasierte Industrien, Bio-/ Kreislaufwirtschaft

Holzenergie-Industrie

ART DER LöSUNG

Kreislaufwirtschaft, biobasierte Produkte

SCHLüSSELWöRTER

--

DIGITALE LöSUNG

Nein

INNOVATION

Ja

HERKUNFTSLAND

Finnland

UMFANG DER ANWENDUNG

Lokal

ANFANGS- UND ENDJAHR

--

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

REPORTER

REFERENCES AND RESOURCES

HAUPT-WEBSITE

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

RESSOURCEN

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PROJEKT-WEBSITE

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PROJEKT-REFERENZ

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PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood

BEITRAGSDATUM

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY