# 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.

## DETALJER

OPPRINNELSE FOR TRE

Skog

TYPE TRE

Tre fra rundtvirke

TYPE TRE INVOLVERT

Stemwood, energy wood

PåVIRKNING På MILJø OG BIOLOGISK MANGFOLD

Positive: less waste from production side streams

INNTEKTSEFFEKT

Positive

UTNYTTELSESPOTENSIAL

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HUB

Northern Hub

ØKONOMISK PåVIRKNING

Positive

SPESIFIKKE KUNNSKAPSBEHOV

Knowledge, research and testing of special mixtures

MOBILISERINGSPOTENSIAL

Not possibile to assess

BæREKRAFTPOTENSIAL - VERDI

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ENKEL IMPLEMENTERING

Easy

ENKEL IMPLEMENTERING - EVALUERING

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VIKTIGE FORUTSETNINGER

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

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EFFEKT På ARBEIDSPLASSER

New business from utilization of side streams and waste

KOSTNADER MED IMPLEMENTERING (EURO - €)

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## MER INFORMASJON

UTFORDRING ADRESSERT

2. Forbedre infrastruktur og kapasitet for offentlige aktører

DOMENE

Avvirkning, infrastruktur, logistikk

Skogindustri, bio/sirkulær økonomi

Industri for skogbasert bioenergi

TYPE LØSNING

Sirkulære, biobaserte produkter

NØKKELORD

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DIGITAL LØSNING

Nei

INNOVASJON

Ja

OPPRINELSESLAND

Finland

POTENSIALE

Lokal

START OG SLUTT åR

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## KONTAKT INFORMASJON

EIER ELLER FORFATTER

**Tapio Oy**

Samuli Joensuu

samuli.joensuu@tapio.fi

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

RAPPORTØR

## REFERENCES AND RESOURCES

HJEMMESIDE (HOVEDSIDE)

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

RESSURSER

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PROSJEKTETS HJEMMESIDE

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REFERANSE TIL PROSJEKT

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PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

Rosewood

INNLEGGSDATO

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