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.

DéTAILS

ORIGINE DU BOIS

Forêt

TYPE DE BOIS

Grume

TYPE DE BOIS CONCERNé

Stemwood, energy wood

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé

Positive: less waste from production side streams

EFFET SUR LE REVENU

Positive

POTENTIEL D'EXPLOITATION

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HUB

Pôle Nord

IMPACT éCONOMIQUE

Positive

CONNAISSANCES SPéCIFIQUES REQUISES

Knowledge, research and testing of special mixtures

POTENTIEL DE MOBILISATION

Not possibile to assess

POTENTIEL DE DURABILITé - VALEUR

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FACILITé D'IMPLéMENTATION

Easy

FACILITé D'IMPLéMENTATION - ÉVALUATION

--

PRéREQUIS CLéS

Information about side streams from mines and forest industry

Information about usability of side streams in road infrastructure

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE

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EFFET SUR L'EMPLOI

New business from utilization of side streams and waste

COûTS D'IMPLéMENTATION (EURO - €)

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PLUS DE DéTAILS

DéFI CONCERNé

2. Améliorer les infrastrctures et les capacités des acteurs publics

DOMAINE

Récolte, infrastructure, logistique

Industries basées sur la forêt, bioéconomie, économie circulaire

Industrie du bois énergie

TYPE DE SOLUTION

Produits biosourcés, économie circulaire

MOTS-CLéS

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SOLUTION DIGITALE

Non

INNOVATION

Oui

PAYS D'ORIGINE

Finlande

ECHELLE D'APPLICATION

Locale

DéBUT ET FIN D'ANNéE

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INFORMATIONS DE CONTACT

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

RAPPORTEUR

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

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

SITE WEB DU PROJET

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RéFéRENCE DU PROJET

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RESSOURCES

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PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood

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