Description of best practice

Best practice	
Title	Ash in Forest Road Maintenance
Picture	
Domain	Infrastructure
Source of wood	Stemwood, ene
Location	Finland
Implementers	Tapio Ltd
Actual status	Running
Approach	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.
Main results	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.
Lessons learned	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.
Contact	

information	
Link to website	https://tapio.fi/konsultointi/tuhka-tienrakennuksen-materiaalina/
Code	BP_FI_01

Best practice assessment

Region	Finland
Time scale	Running
Mobilization Potential	Not possibile to assess
Kind of wood concerned	Stemwood, energy wood
Sustainability Potential	High
Impact on environment & biodiversity	Positive: less waste from production side streams
Ease of implementation	Easy
Economic impact	Positive
Job effect	New business from utilization of side streams and waste
Income effect	Positive
Specific knowledge needed	Knowledge, research and testing of special mixtures
Costs of implementation	Low
Technical readiness level	Applicable
Key information for adoption	Information about side streams from mines and forest industry Information about usability of side streams in road infrastructure