



# NON-WOOD FOREST PRODUCTS BOOSTING THE NORTH KARELIAN BIOECONOMY





# NON-WOOD FOREST PRODUCTS

Non-wood forest products (NWFPs) are products that are of biological origin, but not timber. They are derived from forests, other wooded land and trees.

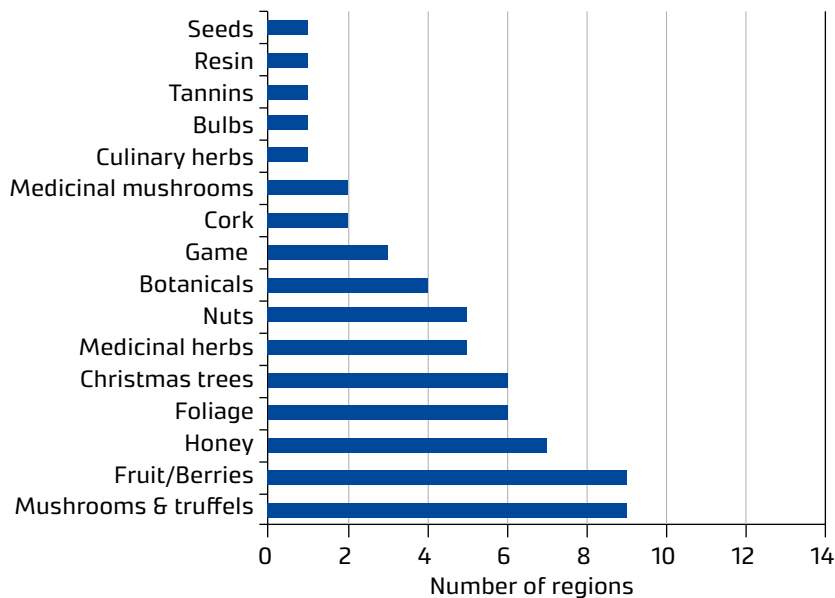
In Finland, berries, mushrooms and birch sap juice are commonly known and used NWFPs.

In Europe, nuts, truffles and cork are significant NWFPs. In some areas, forests are managed for producing NWFPs, not timber.



# COMMERCIAL USE OF NWFPs IN EUROPE

## Mass markets of NWFPs in 14 European regions\*



Berries, fruits, mushrooms and truffles are the most common articles at the mass markets in Europe.

In Finland North Karelia is the region of mushrooms and berries, which are also the only NWFPs that end up in mass markets from the area.

*\*14 regions across Europe are the case study areas of EU-funded research project on NWFPs. Mass markets are characterised by sale of resources in a raw or semi-processed form, in large consignments to a wholesaler, processor or large-scale retailer.*

### CHALLENGE

How to stand out from the crowd?  
Berries and mushrooms are growing world wide and have steady markets.

### OPPORTUNITY

Finnish berries are highly competitive due to purity of nature, high nutrient contents and reliability of the origin.

# BERRY AND MUSHROOM MARKETS IN FINLAND

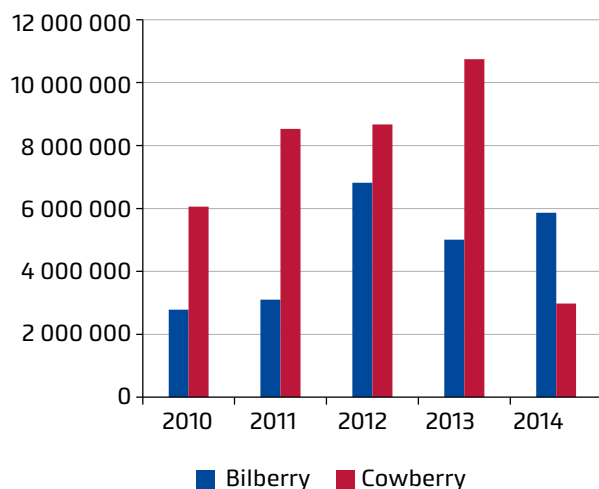
Due to a high variation in yields, the amounts of berries and mushrooms harvested and marketed vary annually.

The most marketed berries are cowberry and bilberry. Marketed berries are picked mainly by foreign pickers in northern Finland.

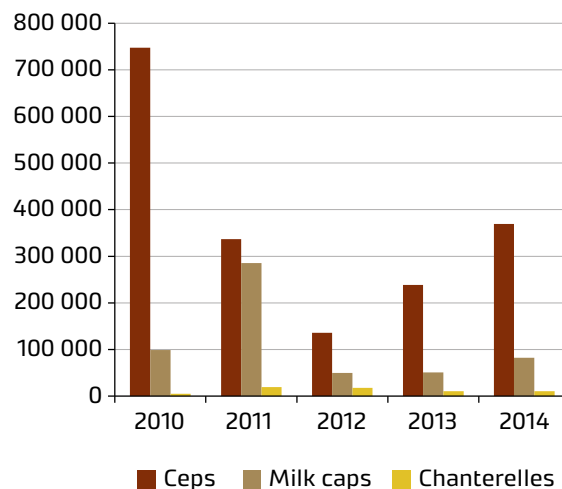
Ceps (*Boletus edulis*, *B. pinophilus*) dominate the mushroom markets and about 63% of the picker income was paid in eastern Finland.



### Berries picked for sale (kg)



### Mushrooms picked for sale (kg)



(Marsi 2014)



## THE NORTH KARELIAN NWFP MARKETS



In addition to berries and mushrooms, there is a wide variety of other products at the markets. Most of them are consumed locally and nationally, but some end up at the international markets.

The North Karelian NWFP markets consist of different kinds of products for private consumers as well as for restaurants. There are also some services based on NWFPs in the region, such as guided mushroom picking tours and courses for making soap.

### CHALLENGE






The annual yields of berries and mushrooms vary a lot which makes the markets unstable.

### OPPORTUNITY

NWFPs are exported mainly as raw material. Value-added processing of NWFPs could improve the contribution to the economy.

# A RIGHT TO USE NWFPs IN EUROPE

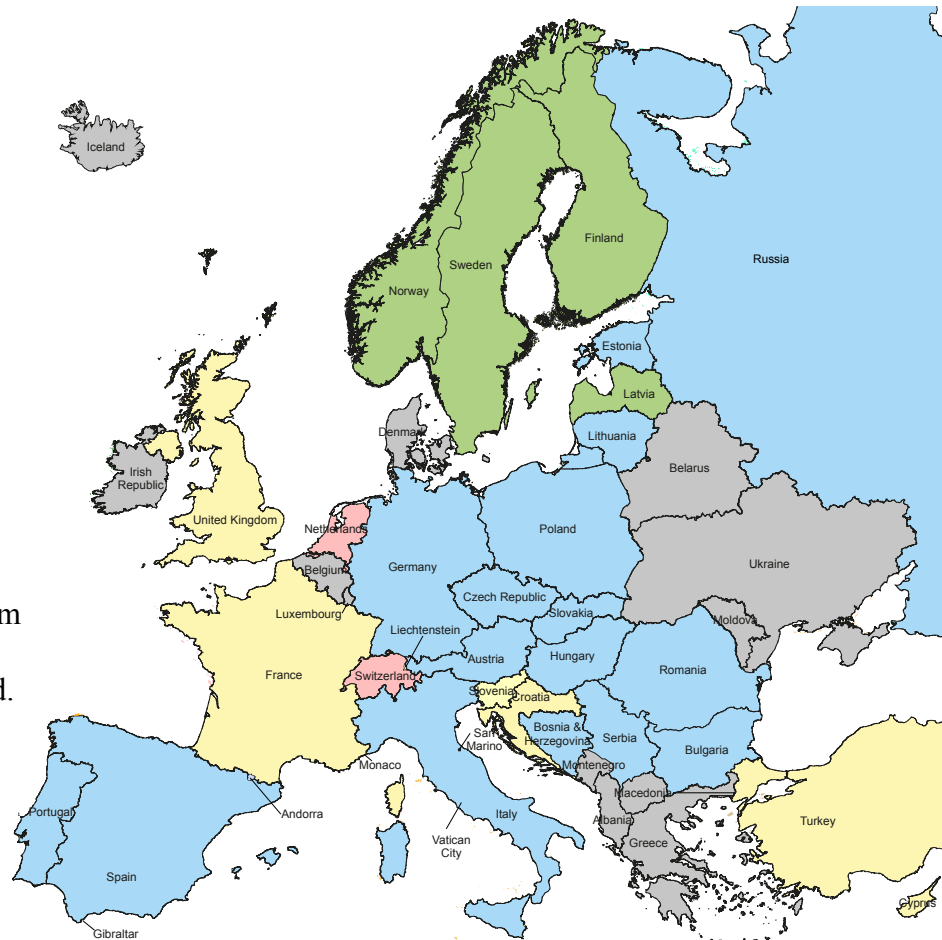
## NWFP harvesting rights in Europe

-  The rights does not exist or is not mentioned in the analysed laws
-  Only limited use of NWFP
-  Right to use NWFP generally admitted but restrictions and prohibition possible
-  Use NWFP generally admitted provided that no damage is caused
-  Missing

There is no common way how NWFPs harvesting is regulated in Europe.

The right to pick NWFPs from forests is less regulated in Norway, Sweden and Finland.

In Finland, anyone can pick NWFPs and have an access to forests. This is called the Everyman's rights.



FAO 2004, StarTree 2015. Picture: Anne Nylander, Luke.



# EVERYMAN'S RIGHTS IN FINLAND



Everyman's rights are based on tradition and grant a right to pick NWFPs also for sale. However, exercising the right must not cause more than a minor damage or disturbance to land owner.

In the regions of North Karelia and Kainuu, every second forest owner thinks that they should have the possibility to participate in defining who can pick berries and mushrooms on their land.

## CHALLENGE

The forest owners cannot control the NWFP harvesting in their forests.

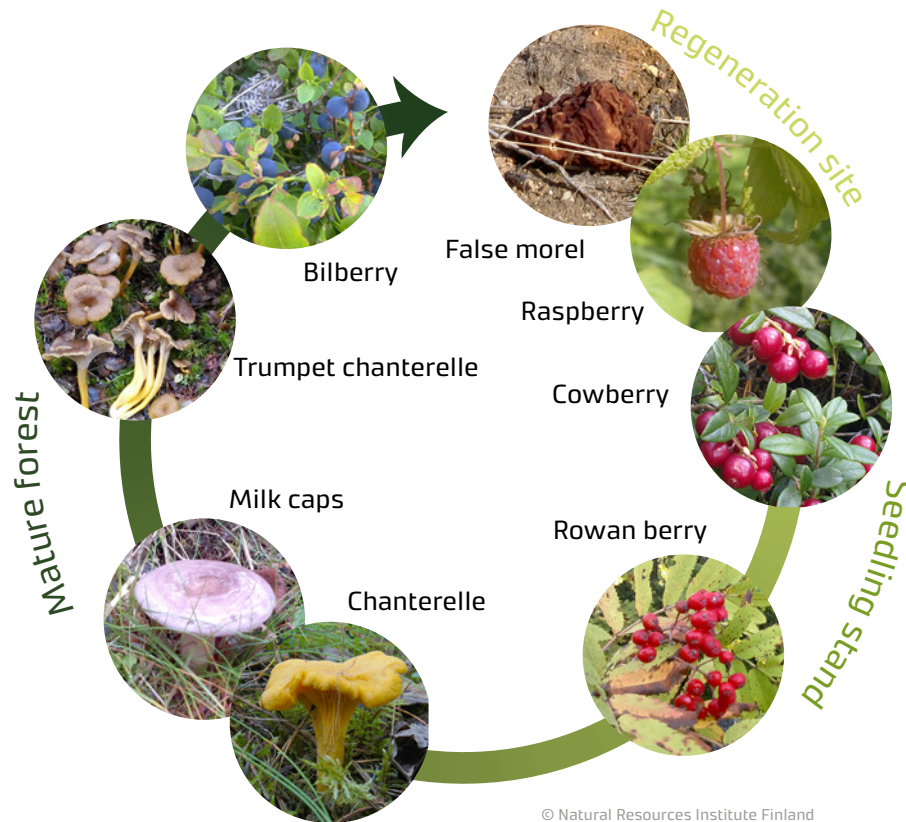
## OPPORTUNITY

Only a small part of the annual yields is harvested which enables more intensive utilisation of berries and mushrooms.



# NWFP PRODUCTION

Production of various NWFPs along with the development of forest



Each NWFP has its own requirements for high-yield production. The conditions for NWFPs change along with the development and management of forests. For example, bilberries are found from semi-shaded, mature forests and raspberries from young forests full of light.

All the NWFPs are not available at the same place and time, but usually one or more NWFPs can be found in each site.



# NWFPs PRODUCTION

Most NWFPs grow and are harvested from the wild, but their production could be promoted by management.

In Europe semi-cultivation is rather common, but cultivation on farm land or industrial green houses is practiced less.



**WILD HARVESTING**



**SEMI-CULTIVATION**



**CULTIVATION**

## CHALLENGE

In Finland, NWFPs do not play any role in forest management, as timber production is the main goal.

## OPPORTUNITY

The production of NWFPs is not in conflict with timber production and they could be produced simultaneously.

# SUPPLY CHAINS OF NORTH KARELIAN WILD MUSHROOMS

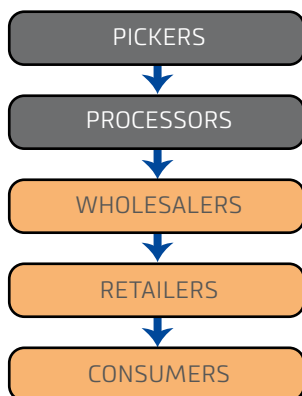
## INDUSTRIAL CHAIN

Chanterelles, Ceps.

**From North Karelia:** Raw, frozen, in brine.

**To:** Europe (Italy, Germany, Bulgaria).

**Scope of market:** Hundreds of thousands kg.

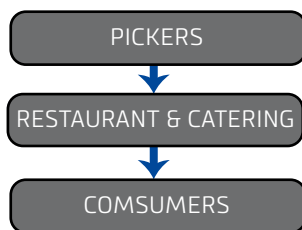


## RESTAURANT CHAIN

Chanterelles, Ceps, False morels, Milk caps, Horn of plenty, Trumpet chanterelle, Russulas.

**To:** Consumers in North Karelia as food portions.

**Scope of market:** Thousands of kg.



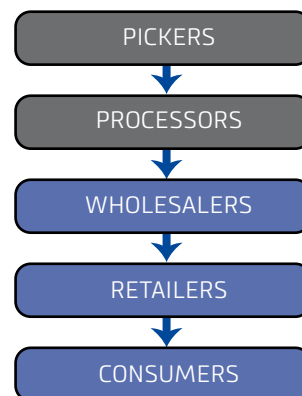
## DOMESTIC RETAIL CHAIN

Chanterelles, Ceps, False morels, Milk caps.

**From North Karelia:** Raw, frozen, in brine.

**To:** Finnish markets, some end up in North Karelian food stores and markets.

**Scope of market:** Tens of thousands kg.



■ North Karelia ■ Finland ■ Europe

## CHALLENGE

NWFP-based business is challenging due to varying yields, high harvesting costs and long distance from international markets.

## OPPORTUNITY

Networking and creation of the value chains are essential for the NWFPs sector.





Wild Food-trend inspires restaurants to use more NWFPs.



Talking about successful product development - Pakuri tea can cost 960 €/kg!



Italians sell 'funghi porcini' as luxury products.

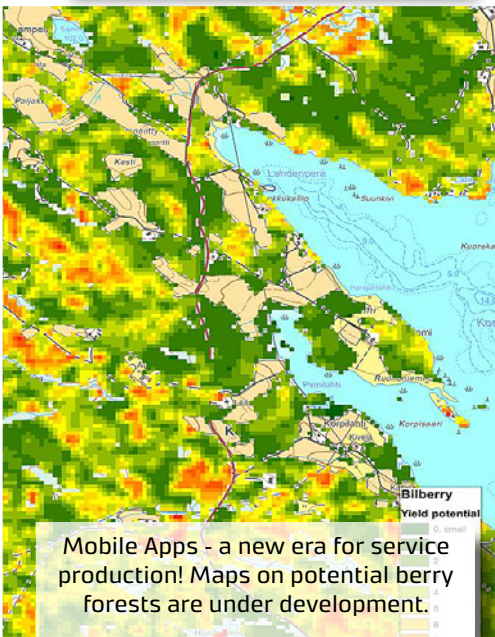


Berries are perfect in natural remedies and food supplements.

# WHAT'S UP AT THE NWFP FIELD?



Nature cosmetics is hot now! Berry seed oils are used in lipsticks.



Mobile Apps - a new era for service production! Maps on potential berry forests are under development.



Folk medicine Resin Salve got scientific proves of it's efficiency as a medical treatment.



NWFPs in well-being and nature tourism services. Guided mushroom picking tours.





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