

# 1st International Multidisciplinary Acorn as Food Workshop

**ACORN 2024**  
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## Food products among the Non- wood forest products (NWFPs) – the FAO perspective

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# Outline

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- What are NWFPs?
- Food-based NWFP across the UNECE region
- Issues with reported data
- Way forward
- Summary

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# Outline

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- What are NWFPs?

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## Non-wood forest products (NWFP)

- Origin of the products – forests, other wooded land & trees outside the forests
- Definition based on Forest resource assessment (FRA)

**Goods derived from forest and woodland ecosystems that are tangible and physical objects of biological origin other than wood**

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## Importance of NWFPs for humans

- Beneficiaries
  - Rural/poor people
  - Women in particular
- Social & economic benefits
  - Fullfilment of daily needs – subsistence in support of small scale & household based enterprices
  - Provision of employment (collection, local trade) – income generation
  - International trade – economic development

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## Monitoring of NWFP utilization

- Classification of NWFP complicated with adverse implications for reporting
- Statistical data rarely available at national levels

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## Simplified basis for classification of NWFPs

- Origin of NWFPs is linked with forest and woodland ecosystems
- These ecosystems offer habitat for a variety of living organisms
- Living organisms inhabiting forest and woodland ecosystems – plant and animals - are the ultimate source for the provision of NWFPs

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## Plant (and fungi) based NWFPs

- **Food products** Fruits, nuts, seeds, roots, mushrooms, maple syrup ...
- **Non-food products**
  - **Fodder** For domestic animals and bees, in form of leaves, fruits
  - **Medicine** Leaves, bark, roots used for traditional medicine and/or for pharmaceutical industry
  - **Cosmetics/perfumes** Aromatic plants providing volatile oils and other products
  - **Colorants** Bark and leaves/fruits providing tannins used for dyeing/tanning
  - **Ornamentals** Orchids, pots made from roots
  - **Exudates** Gums, resins, latex
  - **Utensils** Thatch, bamboo, rattan, wrapping leaves

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## Animal based NWFPs

- **Food products**
  - **Bushmeat of vertebrates** Mainly mammals
  - **Edible invertebrates** Mainly insects (caterpillars), crustaceans (crabs)
  - **Edible animal products** Honey, eggs, bird nests
- **Non-food products**

Parts of animals as bee wax, hides, skins, organs, bones for various purposes Medicine, colorants, trophies
- **Living animals as pets**

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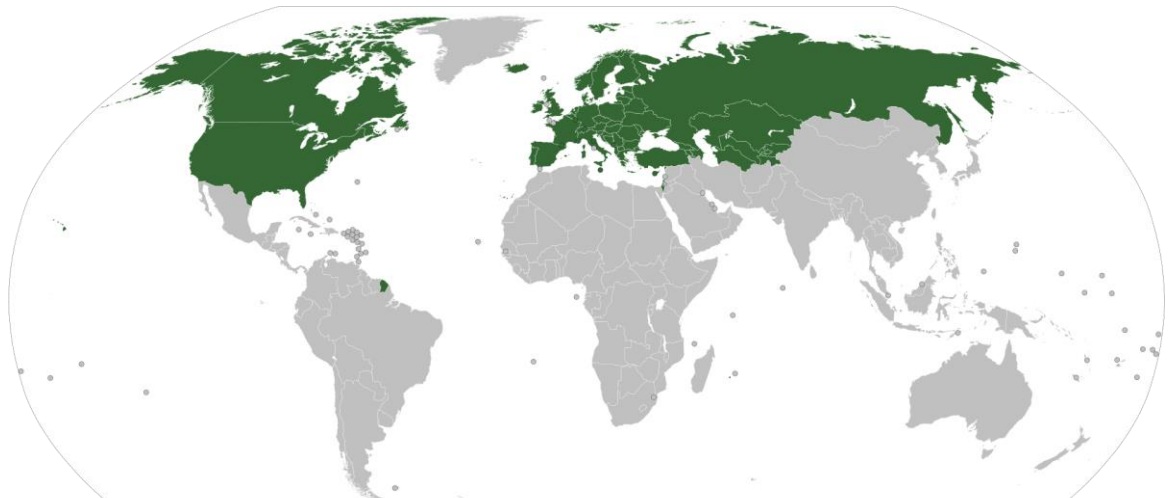
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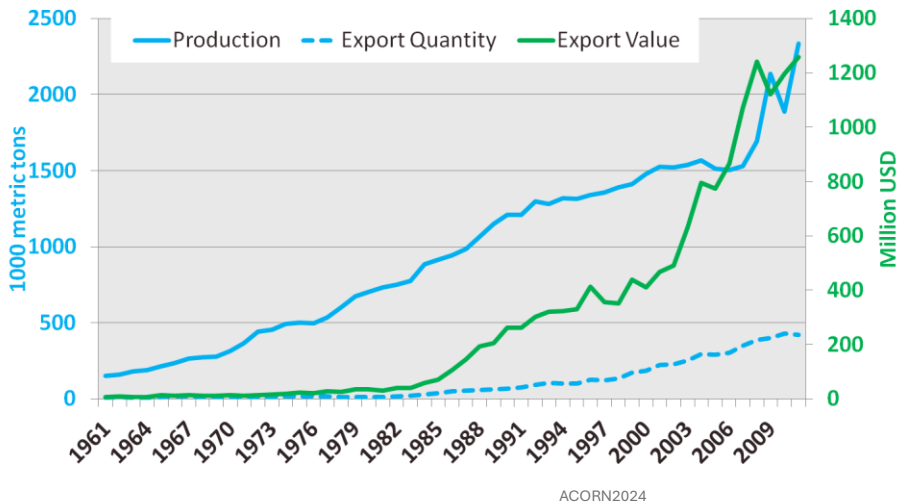


**Member states of the UN Economic Commission  
for Europe – UNECE (56 countries)**

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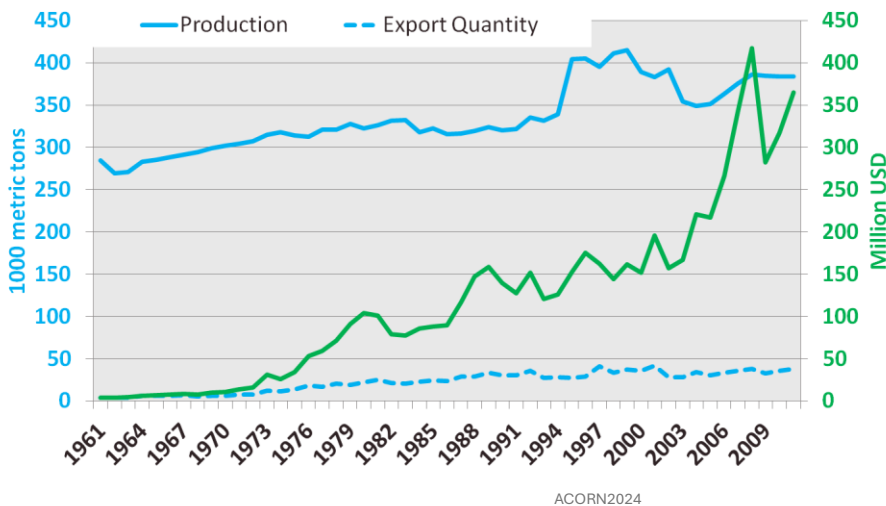
## Mushrooms including truffles in UNECE region



Source: FAOSTAT, courtesy Yanshu Li

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## Game\* meat in UNECE region



\*Game comprises birds and mammals subject to hunting laws



Source: FAOSTAT, courtesy Yanshu Li

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## Quantity and value of various types of marketed animal products in Europe

Region	Game meat		Living animals		Pelts, hides skins and trophies		Wild honey and bee-wax		Rawmaterial for medicines, colorants		Other animal products
	Quantity tonnes	Value 1,000 €	Quantity pieces	Value 1,000 €	Quantity pieces	Value 1,000 €	Quantity Tonnes	Value 1,000 €	Quantity Tonnes	Value 1,000€	Value 1,000€
North Europe	3,117	7,147	-	-	59	529	141	780	20	147	-
Central-West Europe	9,227	217,113	-	-	287	6,738	15,750	111,861	-	-	1,340
Central-East Europe	10,084	17,959	7	528	10	4,445	-	-	-	-	-
South-West Europe	-	73,228	-	-	-	-	36,199	124,690	-	-	-
South-East Europe	700	5,565	-	-	4	6,537	554	39,623	-	-	-
EU-28	23,080	317,013	7	528	351	3,312	52,090	237,330	20	147	1,340
Europe	23,127	321,012	7	528	361	18,249	52,644	276,953	20	147	1,340

Source: FOREST EUROPE, UNECE and FAO (2015)

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## Main producers of fruits & berries in UNECE region

Main producing countries	Quantity (thousand tonnes)	Value (million USD*)
Albania	60.0	114.0
Finland	40.0	67.1
Norway	25.0	45.3
Czech Republic	22.7	39.2
<b>Total</b>	<b>147.7</b>	<b>265.6</b>

\*Reported values are income to collectors (Finland) or estimated market prices

Source: UNECE/FAO 2000

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## Maple syrup producers in UNECE region

United States		Canada	
Quantity (million litres)	Value (million USD)	Quantity (million litres)	Value (million USD)
6.2	39.3	15.3	44.9

Source: FAO 2001c

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## Main problem

Information on resource base and on subsistence use of NWFPs is non-existent, because of

- multitude of products used by local people directly
- technical difficulty and high cost of measuring and reporting on them

Slight exception is Asia, where there is a tradition of national collection of information on NWFP resources and consumption

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## Information quality issue

- Data incomplete - frequent marketing of NWFPs outside of traditional economic structures
- Only 50% from official source - multiplicity of disciplines and interests of different ministries/agencies involved - data appear to be underestimates
- No clear delineation between harvesting types
  - ❖ Cultivation vs wild collection - especially mushrooms, berries
  - ❖ Farmed vs hunted game

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## Information quality issue cont'd

- Information often mixed with agricultural production statistics (e.g. nuts, honey) – lack of statistically designed surveys and inventories – reliability question
- Lack of common terminology and measurements, resulting in statistical data on NWFP resources and production not comparable among or even within countries or regions - mismatch in the subject
- Information limited to selected internationally traded products reflecting mainly on export quantities – but economic value can be calculated at different stages of production and processing

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## Why is information critical?

- National level data on resources, and production and trade (quantities and values) of products are essential to assess the full contribution of the forest sector to the economy of the country
- Implications for development of forest policies and management strategies

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## Why is information critical – cont'd?

- Products extracted from natural stands in various types of forest and woodland ecosystems - although some are evolving (e.g. bamboo) or have evolved (e.g. fruits, nuts) into farmed crops
- For products in high demand - this can lead to unsustainable harvest levels (overharvesting) and potential endangerment or extinction of species
- Serious socio-economic implications for rural people dependent on the availability of these resources

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## Key data requirements for NWFP assessment

- Identification of the species - scientific, local/trade names
- Resource base - management systems, harvesting methods- cultivated vs wild - natural forests vs plantations/agroforestry
- Impact of harvesting on the availability of the resource base
- Trends in utilization - decreasing/stable/increasing
- Access of beneficiaries to resource bases and their property rights
- Benefits across sectors of economies
- Importance of - specific - NWFP for the economy of the country

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## Proposed solutions by FAO

- Initiation of projects to promote use and commercialization of NWFP, while
  - Improving well-being of rural populations
  - Conserving existing forests
  - Enhancing contribution of forests to food system transformation
- Commitment to assessment of NWFP use at national level through **FAO supported, well designed periodical surveys and inventories based on key information requirements**

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## Take home message

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- NWFPs – including food-based - provide social & economic benefits to rural populations, but also contribute to national economies
- Mushrooms including truffles, game meat, honey, fruits and berries, and maple syrup are important food-based NWFP across the UNECE region
- Significant issues are associated with monitoring of utilization and related reporting on NWFPs
- FAO stands ready to assist its Members with design of periodical surveys and inventories on NWFPs

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**Thank you!**  
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