Wild forest products: a hidden sector

Davide Pettenella

A cluster of products
A complex issue to deal

A picture made by Enrico Vidale (StarTree H2020 project)
NWFP economic role

• FAO estimates that NWFPs generated **US$88 billion** in 2011 ([SOFO, 2014](#)).

• **76 million tonnes** of food from the forest were consumed on average in 2011 ([SOFO, 2014](#)).

• **1 billion people** are thought to depend on **wild foods** ([Burlingame, 2000](#)).

• **80%** of the population of developing countries rely on traditional medicines, mostly plant drugs, for primary health care.
NWFP economic role

• In SOFO 2018: no data, only case studies

A focus only on the role of NWFP in DC

NWFP economic role

• NWFP in Europe: a market segment of the rural economy perceived as marginal and declining:
  – No clear definition
Definitions (source: Muir, 2018)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-wood forest products</td>
<td>NWFPs consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests. (FAO, 1999)</td>
</tr>
<tr>
<td>Non-timber forest products</td>
<td>The term NTFP encompasses all biological materials other than timber which are extracted from forests for human use (DeBeer &amp; McDermott, 1989)</td>
</tr>
<tr>
<td>Wild forest products</td>
<td>&quot;Wild product results from the collection of edible plants and parts thereof, growing naturally in natural areas, forests and agricultural areas.&quot; (EU Art. 12, comma 2, Reg. 834/07 &quot;organic law&quot;)</td>
</tr>
<tr>
<td>Minor forest produce</td>
<td>All minor forest produce is plant origin including bamboo, bamboo shoots, cane, cassava, coconut, hemp, and kenaf leaves, medicinal plants, and herbs.</td>
</tr>
<tr>
<td>Secondary or side use of forests</td>
<td>All kinds of use in forests and forest lands not covered by forest, except for timber and minor forest materials, including: animal husbandry, beekeeping, farming, processing of wood and non-timber forest products.</td>
</tr>
<tr>
<td>Forest by-products</td>
<td>Categories of forest by-products are production, secondary materials, and technological raw materials, like the use of forest by-products, scientific research, cultural and social purposes, hunting, forestry, recreation (including leisure), and other forest uses not prohibited by law.</td>
</tr>
<tr>
<td>Natural forest produce</td>
<td>Refers to wild or semi-cultivated plants or mushrooms which can be used as such or with some processing. This also includes the by-products of trees and soil materials. (Finland’s National Forest Programme 2015)</td>
</tr>
<tr>
<td>Wild food</td>
<td>Wild food is defined as anything edible that requires no human input to increase its production (ACF, USA, 2008; ACF, 2012; FAO, 2004; FAO, 1999.)</td>
</tr>
<tr>
<td>Wild meat (bushmeat)/game meat</td>
<td>All meat from animals hunted or trapped for meat that is available for consumption; meat from game that roams in farms (a farm has an enclosed space) is excluded (UNECE, 2017).</td>
</tr>
</tbody>
</table>

NWFP

- Weak component of the society
- Defensive attitude in marketing
- Definition based on negative attributes

WFP

- Modern segment of an affluent society
- Aggressive attitude in marketing
- Definition based on positive attributes

A non-4 wheels vehicle
WFP economic role

• NWFP in Europe: a market segment of the rural economy perceived as marginal and declining:
  – No clear definition
  – No data, also due to the complexity of the value chain
WFP economic role

• NWFP in Europe: a market segment of the rural economy perceived as marginal and declining:
  – No clear definition
  – No data, also due to the complexity of the value chain
  – No innovation
  – Informal (black) economy

Dynamic market conditions
Some examples: foraging

http://www.wood-ing.org/
Sap water

https://resinasnavasdeoro.es/

Resins

https://resinasnavasdeoro.es/
Many (new) links with tourism:

micotourism in Castilla y León

http://www.turismocastillayleon.com/es/gastronomia-enoturismo/micoturismo

Enterprises: 62 (in 2008); > 100 in 2011

15 Agritourisms/ Farm businesses
12 Hotels/Guest quarters
 8 Bed&Breakfasts/Inns/Hostels
 9 Cheese, sausage and wine growing and producing factories
 2 Didactic farms
 3 Museums/Private collections
30 Restaurants/Porterhouses
26 Typical products sellers
A WFP as **imago product** for presenting a territory

- Traditional local products
- “Green” products
- “Slow food” culture

**Networking**
Road, trail, path... the tools for connecting different economic actors

<table>
<thead>
<tr>
<th>Google search</th>
<th>hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strada della castagna</td>
<td>Chestnut road</td>
</tr>
<tr>
<td>Strada del tartufo</td>
<td>Truffle road</td>
</tr>
<tr>
<td>Strada del fungo</td>
<td>Mushroom road</td>
</tr>
<tr>
<td>Strada del porcino</td>
<td>Porcino road</td>
</tr>
<tr>
<td>Strada del marrone</td>
<td>Marron road</td>
</tr>
</tbody>
</table>

E-marketing

Il tartufo da 900 grammi a un magnate cinese per 330.000 dollari

La offerta in beneficenza

ultima aggiornamento: 27 novembre, ore 18:42
L’Associazione Città del Castagno: 110 members

In the Italian farming sector, chestnut is in the 5th position in terms of no. of local associations

Source: Corriere della Sera (2015)

New selling systems

- Direct sales: “Pick-up your chestnuts”: selling directly to the consumers the right to collect chestnut for a fixed rate or in relation to the weight of collected fruits
- “Adopt your own chestnut tree”: chestnuts picking and organised picnics under the chestnut tree
- e-business:
  - B2B: fresh chestnuts, semi-finished products, …
  - B2C: jams, dried nuts,…
WFP for emerging segments of consumers: **LOHAS** (Life Style Of Health and Sustainability)

- **Localism**
- **Direct sale** (short value chains)
- **Solidarity** (fair trade)
- **Traditional Origin**
- **Responsible origin** (FSC-PEFC)

But how many?

A survey carried out under the StarTree H2020 project
by DP, Giulia Corradini, Riccardo Da Re, Marko Lovrić and Enrico Vidale

- **Objective**: to assess the consumption and collection of WFPs in Europe
- **Design**:
  - Unit of analysis: household
  - **Scale**: EU28 (no Malta, Luxembourg and Cyprus) with Serbia, Turkey and European part of Russian Federation
  - Panel study (distributed by a polling agency)
- **Sample**: respondents: **17,346** (95% confidence level, \( \approx 4.21\% \) confidence interval).
Consumption by country

Mean 89.6%

Consumption of WFP (% of households)

- Fresh or dried nuts
- Fresh berries
- Dried, frozen, prepared wild berries
- Products based on natural extracts
- Fresh wild mushrooms
- Dried, frozen, prepared wild mushrooms
- Fresh wild plants
- Canned, juice, spirits, or processed nuts
- Fresh, dried or handcrafted forest foliage and greens
- Handcrafted forest foliage and greens
- Fresh sap and raw resins
- Products based on sap and resins
- Frozen prepared truffles
- Fresh truffles
How were WFP obtained? (% of households)

- Purchased from a shop: [Graph showing percentage]
- Purchased from a collector or a harvester: [Graph showing percentage]
- Received as a gift: [Graph showing percentage]
- Collected from wild by members of my household: [Graph showing percentage]

Picking of WFP by country

MEAN 24.5%
How were WFP obtained?

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected from wild by members of my household</td>
<td>25.33%</td>
</tr>
<tr>
<td>Received as a gift</td>
<td>15.08%</td>
</tr>
<tr>
<td>Purchased from a collector or a harvester</td>
<td>21.78%</td>
</tr>
<tr>
<td>Purchased from a shop</td>
<td>81.50%</td>
</tr>
<tr>
<td>Other</td>
<td>4.07%</td>
</tr>
</tbody>
</table>

PERCENTAGE OF HH THAT PICK WFPs

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>67.88%</td>
</tr>
<tr>
<td>France</td>
<td>25.21%</td>
</tr>
<tr>
<td>Romania</td>
<td>24.17%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>53.58%</td>
</tr>
<tr>
<td>Turkey</td>
<td>21.85%</td>
</tr>
<tr>
<td>Estonia</td>
<td>52.96%</td>
</tr>
<tr>
<td>Spain</td>
<td>18.32%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>52.47%</td>
</tr>
<tr>
<td>Italy</td>
<td>12.35%</td>
</tr>
<tr>
<td>Finland</td>
<td>49.87%</td>
</tr>
<tr>
<td>Serbia</td>
<td>16.71%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>49.58%</td>
</tr>
<tr>
<td>Denmark</td>
<td>14.92%</td>
</tr>
<tr>
<td>Poland</td>
<td>43.90%</td>
</tr>
<tr>
<td>Greece</td>
<td>13.41%</td>
</tr>
<tr>
<td>Russia</td>
<td>40.00%</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.01%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>37.50%</td>
</tr>
<tr>
<td>Portugal</td>
<td>9.98%</td>
</tr>
<tr>
<td>Austria</td>
<td>36.65%</td>
</tr>
<tr>
<td>Hungary</td>
<td>9.79%</td>
</tr>
<tr>
<td>Sweden</td>
<td>34.07%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8.25%</td>
</tr>
<tr>
<td>Croatia</td>
<td>32.43%</td>
</tr>
<tr>
<td>Belgium</td>
<td>7.57%</td>
</tr>
<tr>
<td>Germany</td>
<td>29.67%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4.33%</td>
</tr>
</tbody>
</table>

Picking of WFP

(\% of households)
Still a lot to do to make the sector vital and stable

Monitoring and assessment

R&S, dissemination and communication

Creation of a fair, transparent and traceable market

We are working in this direction

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