Tailoring the Documentation of Plant Genetic Resources in Europe to the Needs of the User

Workshop of the Documentation and Information Working Group
20-22 May 2014, Prague, Czech Republic

National Inventory in Albania
Belul GIXHARI

Thanks to ECPGR and CRI - Prague for organizing this workshop, and a great thanks to Biodersity International that support my presence in this workshop.
Albania National Inventory (NI)

Albania PGR database includes two Inventories

1. Home Inventory /or Genebank database of PGR (standard & raw data)
   &
2. ALB National Inventory (NI) in EURISCO (standard data)

- ALB NI is present on-line in: http://eurisco.ecpgr.org/
Albania National Inventory (NI)

- **Home Inventory** include:
  - Old Inventory/database of PGR with data before 1998.
  - **New Inventory** (= accessions of different sources registered in genebank after 1998).

- Data are recorded in Excel format, Word, photo, etc., according to International Standards and Descriptors.

- There are some characterization data for a small number of acc.

- During transition period (1990-1998) most of the ex-Research Agricultural Institution sent to genebank genetic materials without information, or non standard data.
Old Inventory collection include:
- **2687** accessions.
- **48** genius.
- **76** species.

Gene-bank accessions are stored (ex-situ) in 12 standard equipments (freezers), at -18°C (3–7 % seed moisture content) = base collection.

**Germplasm is stored ex situ = (13)**

**long term seed collection**
Albania National Inventory (NI)

- **Albania NI in EURISCO include:**
  - 2111 accession data, recorded in Excel format using Passport Descriptors List.
  - There are 2111 acc, 33 genus, 62 species.
  - ALB NI in EURISCO represent **79% of Old Inventory**, and **96% of accessions with origin = Albania**
  - ALB NI is present on-line in: [http://eurisco.ecpgr.org/](http://eurisco.ecpgr.org/)
# Albania National Inventory (NI)

## Accessions by Genus and species (Old Inventory = 2687 acc.)

<table>
<thead>
<tr>
<th></th>
<th>Accessions</th>
<th>Genus</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Inventory (ALB)</td>
<td>2687</td>
<td>46</td>
<td>76</td>
</tr>
<tr>
<td>Abania</td>
<td>2193</td>
<td>41</td>
<td>68</td>
</tr>
<tr>
<td>Other origin</td>
<td>494</td>
<td>5</td>
<td>41</td>
</tr>
<tr>
<td>In EURISCO</td>
<td>2111</td>
<td>33</td>
<td>62</td>
</tr>
<tr>
<td>Eurisco/Old Inventory</td>
<td>79%</td>
<td>72%</td>
<td>82%</td>
</tr>
<tr>
<td>Eurisco/Albania NI</td>
<td>96%</td>
<td>80%</td>
<td>91%</td>
</tr>
</tbody>
</table>
Albania National Inventory (NI)

Accessions by country of origin (Old Inventory = 2687 acc.)

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Accessions</th>
<th>%</th>
<th>Country of origin</th>
<th>Accessions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>2193</td>
<td>81.6%</td>
<td>Czeck...</td>
<td>17</td>
<td>0.6%</td>
</tr>
<tr>
<td>Italy</td>
<td>70</td>
<td>2.6%</td>
<td>Nederland</td>
<td>12</td>
<td>0.4%</td>
</tr>
<tr>
<td>Germany</td>
<td>58</td>
<td>2.2%</td>
<td>Austria</td>
<td>11</td>
<td>0.4%</td>
</tr>
<tr>
<td>USA</td>
<td>40</td>
<td>1.5%</td>
<td>China</td>
<td>11</td>
<td>0.4%</td>
</tr>
<tr>
<td>French</td>
<td>30</td>
<td>1.1%</td>
<td>Russia</td>
<td>10</td>
<td>0.4%</td>
</tr>
<tr>
<td>North Corea</td>
<td>25</td>
<td>0.9%</td>
<td>Romania</td>
<td>10</td>
<td>0.4%</td>
</tr>
<tr>
<td>Lituania</td>
<td>24</td>
<td>0.9%</td>
<td>unknown</td>
<td>87</td>
<td>3.2%</td>
</tr>
<tr>
<td>Greece</td>
<td>22</td>
<td>0.8%</td>
<td>Other 15 countries</td>
<td>67</td>
<td>2.5%</td>
</tr>
</tbody>
</table>
Albania National Inventory (NI)

Accessions by country of origin (Old Inventory = 2687 acc.)

NI in EURISCO: 2111 accessions

- "ex-situ" conservation:
  - Seed collection = 1800 acc.
  - Wood plants "ex-situ" field-collection = 311 acc.
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

Accessions summary by collecting date (= 2468 acc)

- **ALB_Proj**: Accessions summary by collecting date
  - 1963-70: 7
  - 1971-80: 198
  - 1981-90: 63
  - 1991-00: 176
  - 2001-02: 0
  - 2003-04: 353
  - 2005-06: 132
  - 2007-08: 38
  - 2009-10: 168
  - 2011-12: 78
  - 2013-14: 280

- **ALB_ME_Proj**: Accessions summary by collecting date
  - 2003-04: 353

- **FAO_Proj**: Accessions summary by collecting date
  - 2003-04: 280

- **SEEDNet_Proj**: Accessions summary by collecting date
  - 2003-04: 168

**Acc. collected = 1493** (or 60% of total 2468 acc)
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)
Accessions summary by acquisition date (= 2468 acc) = outputs of some Projects

Acquisition date of accessions in genebank

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>144</td>
<td>182</td>
<td>485</td>
<td>692</td>
<td>268</td>
<td>169</td>
<td>168</td>
<td>78</td>
<td>280</td>
</tr>
</tbody>
</table>

Belul Gixhari, Albanian Gene Bank
Training Workshop, Prague, 20-22 May, 2014
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

Accessions summary by collector institute number

After 2012 is genebank that accept any real output of collecting missions related to PGR.
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

Accessions summary by storage type

- 2085 (84%) Accessions
- 383 (16%) Accessions

13 (ex situ, long term)
20 (ex situ, field collection)
## ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

National Inventory Status (new accessions were added)

<table>
<thead>
<tr>
<th>National Inventory Status</th>
<th>Accession</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total accession</td>
<td>2468</td>
<td>100%</td>
</tr>
<tr>
<td>Adv. cv/Br. lines/Hyb</td>
<td>975</td>
<td>40%</td>
</tr>
<tr>
<td>Collecting accession.</td>
<td>1493</td>
<td>60%</td>
</tr>
<tr>
<td>Collecting acc.</td>
<td>1493</td>
<td>100%</td>
</tr>
<tr>
<td>Collecting acc with geo-ordinates</td>
<td>1012</td>
<td>68%</td>
</tr>
<tr>
<td>Collecting acc with no geo-ordinates</td>
<td>481</td>
<td>32%</td>
</tr>
</tbody>
</table>
### ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

#### National Inventory Status  *In situ/On farm*

<table>
<thead>
<tr>
<th>Crops / Accession</th>
<th>In Situ</th>
<th>On farm</th>
<th>In Situ/On Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit Trees (landraces listed 633 acc.)</td>
<td>163</td>
<td>130</td>
<td>293</td>
</tr>
<tr>
<td>Vitis sp.</td>
<td>2</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td>Olive trees (1000-3000 years old)</td>
<td>116</td>
<td>40</td>
<td>156</td>
</tr>
<tr>
<td>Citrus</td>
<td>12</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Medicinal (wild species)</td>
<td>403</td>
<td>0</td>
<td>403</td>
</tr>
<tr>
<td>Phaseolus (landraces)</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Zea mays (landraces)</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total (accession)</strong></td>
<td></td>
<td></td>
<td><strong>1269</strong></td>
</tr>
</tbody>
</table>

**Genus** 63  
**Species** 76  
**Farmers engaged with PGR (on farm)** 13  
**Farmers (listed as potential in the future)** 45
ACTUAL STATUS OF ALBANIA NATIONAL INVENTORY (NI)

National Inventory Status: FAO-TCP/ALB/3401
‘Conservation and management of endangered locally adapted crop varieties’ (1st year Project outputs)

<table>
<thead>
<tr>
<th>Accession</th>
<th>Genus</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP/ALB/3401_HOR-1</td>
<td>75</td>
<td>10</td>
</tr>
<tr>
<td>TCP/ALB/3401_MAP_1</td>
<td>76</td>
<td>16</td>
</tr>
<tr>
<td>TCP/ALB/3401_FRU_1/4</td>
<td>76</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>227</td>
<td>32</td>
</tr>
</tbody>
</table>

It is the second time (after SEEDNet) where a Project related to PGR has a concrete output (not only a written report)
ALB NI Status: Problems identified

Information in Excel format is not very useful for users.

Albania has a big Server +accessories (FAO support) but not a Home-Database easy to be used by users. Users (and genebank) want to know for what purpose an accession/individual was selected/colllected.

EURISCO Descriptors describe (CV) passport for an acc. but there is no any information why ones has been selected/or collected. Characterization data (in Excel) are less useful to users .....
ALB NI Status: other Problems

Geo-coordinates recorded using GPS are not all time correct (several samples have not precise geographic coordinates) (for different reasons, GPS knowledge, battery charge, clouds, etc)

To check geo-data we have added near COLLSITE other descriptors in Administrative levels (ALB.adm1, ALB.adm2, ALB.adm3) (County, District, Commune) (the name of a village can be the same of different areas of collection = this is real) (my native village German, or Germenj, is 8 times).

What kind of software can we use to check geo-data??
ALB NI Status: other Problems

Different activities

= different outputs

In Albania Olive tree tells the Illyrian people story as a Castle in Prague, in Berlin, London, Vienna, etc.
Old Olive trees inventoried only in two Counties (Vlora and Tirana)

STATUS OF OLD OLIVE TREES IN ALBANIA

Old olive trees (~ 1000-3000 years old)

- VLORA
- SARANDA
- DELVINA
- VLORA_COUNTY
- TIRANA
- KAVAJA
- TIRANA_COUNTY

Counts:
- VLORA: 55400
- SARANDA: 25800
- DELVINA: 12600
- VLORA_COUNTY: 93800
- TIRANA: 31900
- KAVAJA: 11430
- TIRANA_COUNTY: 43330
Olive tree in the Landscape Decoration

What is happening??

Madre Tereza Airport (Tirana)

Decorative objects from Trunk of Olive tree by artist Muhamet Trepci. Source: National Museum, Tirana, Albania
LANDSCAPE DECORATION = DAMAGING ACTIVITY = GENETIC EROSION

What is happening??

&=Documentation Erosion
What we have today, will not be any more tomorrow

Decorative activities are damaging the antique story of the multi-century Olive Trees, and it is a pure Genetic Erosion of Old Olive Trees
Thank you