Green Jobs in the Forest Sector

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Promoting Green Jobs in the Forest Sector
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What is a Green Forest Job?!

A green forest job …

- … complies with the principles of Sustainable Forest Management (SFM),
- … contributes to the green economy,
- … and is involved in the value chain of forest products and/or in the performance of forest services.
- Nothing is more empowering than having a job
The goal of our ToS activities is to identify and list existing and potential green forest jobs in the forest sector.

- Based on an analysis of the actual situation and on future challenges, our 2017 target is to elaborate on the potential for green jobs in the forest sector and to present our findings and recommendations to the Member States who will be attending Las2017 in Warsaw, Poland this October.
  - By early 2018, we expect to publish our ‘ToS Report on Green Forest Jobs in the UNECE Region’
Trends in the forest sector - employment

- Employment

  - Over the period 2000-2010, employment in the forest sector in the ECE region decreased by 21%.
    - UNECE & FAO (2015)
  
  - In 2014, the number of people employed in the world’s public forestry sector was 14% lower than in 2010.
    - FOREST EUROPE (2015)
Trends in the forest sector – economic output

- Economic output
  - Over the period 2000-2011, the contribution of the forest sector to Gross Domestic Product (GDP) in the ECE region decreased by 50%.
    - From 2000-2011, forest related GDP declined from 1.2% to 0.8%
    - In monetary terms, forest based GDP declined from $374 billion to $286 billion
  - UNECE & FAO (2015)
Towards a green economy

**Growth in green jobs**
- Over the period 2002-2011, employment in the environmental goods and service sectors in the EU-28 increased by 40% from 3.0 to 4.2. This includes a growth of 20% during the recession years.
- In 2011, these sectors represented 6% of total employment in the EU-28.
- Such employment includes:
  - Natura 2000 sites support 8 million new jobs focused on tourism and recreation
- Further employment growth is expected in the environmental goods and service sectors in the EU-28.

**The importance of forests for recreational use, cultural values and for the production of wood-based bio-energy is increasing.**
What has been achieved by the ToS?

- Outputs and impacts achieved so far.
  - Research on future green forest jobs was carried out.
  - Identification of 7 main thematic areas and 19 action fields.
  - Compilation of case studies.
  - Surveys, expert meetings and workshops.
  - Compilation of our findings in a UNECE/FAO report on green forest jobs.
Green forest jobs and its context

7 thematic areas

- traditional / current Green forest jobs
- current non-traditional Green forest jobs
- new Green forest jobs
• Forest fire control.

• Global warming/climate change is creating major challenges.

• Forest contingency planners need to think globally. They will have to develop and implement new insect & disease management strategies.
Pine wood nematode \textit{(Bursaphelenchus xylophilus)} poses a major threat to European forests.

- Control measures against this dangerous pest and its insect vectors will provide new green jobs in the forest protection sector.

The Asian longhorn beetle (ALB) \textit{(Anoplophora glabripennis)} poses a similar threat.

- Controlling it also provides an opportunity for job creation.
Thematic area: **Biodiversity & forest protection**

Example / Field of activity: **Mycoforestry**

- The forest mycelium is a biomolecular superhighway.
  - www: wood wide web (communicating with its environment).

- Ecosystem hydrology: integrated constructed wetlands-enhanced water quality by judicious tree planting in riparian zones for flood control.

- Working with mycorrhizal fungi in forests opens up different fields such as mycoremediation and biological control by utilising mycorrhizal benefits and interactions.

**Myco-forestry**

<table>
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<tr>
<th>Skills, Expertise and Green Forest Professions</th>
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<tr>
<td>• Mycology researchers.</td>
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<td>• Specialists in mycology laboratory diagnostics.</td>
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<tr>
<td>• Forest mycologists, specialists in fungal taxonomy.</td>
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<tr>
<td>• Specialists in Mycoremediation and biological control.</td>
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<td>• Managers of fungal forests.</td>
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Forests & water
In 2015, forest based fuels provided enough wood-based energy to heat 2 million homes in Sweden.

In 2015, district heating satisfied 60% of the heat demand in Sweden. Today, more than two thirds of the heat provided by district heating systems in Sweden is supplied by biomass and waste streams. Biomass alone accounts for 50% of the heat supply.

A new integrated work perspective: excellent logistic abilities and negotiating skills will be required!
Mountain forests in Switzerland protect in excess of 130,000 buildings and 1,000’s of kilometres of roads & tracks from natural disasters.

- Such forests aid land slide and avalanche preventon.
- 49% of Swiss forests are managed as protection forests with special management restrictions imposed on them.

Risk management will be one of the main tasks for mountain foresters to consider including:

- Risk analysis, valuation and action planning.

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<td>Skills, expertise and green forest professions</td>
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<tr>
<td>- Mountain forestry specialists</td>
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<td>- Specialists in the management of natural hazards</td>
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<td>- Soil bio-engineers</td>
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Thematic area: Social & urban development
Example / Field of activity Urban forestry

**GREEN FOREST JOBS**

- The > 70,000 trees of Melbourne city are valued at $650 M.
  - These includes health, amenity and microclimate benefits.
- Abatement of air pollution, noise reduction, the creation of urban forests and neighbourwoods.
- Urban foresters have to handle the special needs & demands of urban society as well as the special needs of urban trees which are associated with harsh and extreme growing conditions.

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<td>Skills, Expertise and Green Forest Professions</td>
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<tr>
<td>- Urban foresters</td>
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<td>- Forest landscape gardeners</td>
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<tr>
<td>- Urban forest planners / Green urban Infrastructure Managers</td>
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<td>- Multiple use forestry skills</td>
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In 2013, 447 million day visits were made to forests in the UK. This trend is increasing.

In excess of 650 forest recreation sites are provided in Great Britain.

Working in this field, one is responsible for balancing forest and visitor needs and engaging in important public relations, information & communications work.

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<td><strong>Skills, Expertise and Green Forest Professions</strong></td>
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<tr>
<td>• Recreation foresters</td>
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<td>• Forest rangers</td>
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<td>• Forest tourist guides</td>
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<tr>
<td>• Outdoor pursuits &amp; activity organisers</td>
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<td>• Multiple-use forestry experts</td>
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Thematic area: Health & recreation
Example / Field of activity Forest ecotherapy

- Forests act as an antidote to stress.
  - More than 44 accredited forest ecotherapeutic areas are operated in Japan.
    - They are spreading all over the world.

- In Ireland foresters and ecotherapists are promoting the non-timber forest health benefits (of forests) by combining new forest health research with a basic knowledge of medical issues.

Forest ecotherapy

Skills, Expertise and Green Forest Professions

- Research and dissemination of knowledge about forest healing effects.
- Forest ecotherapists
- Medical doctors working in forest therapy centres
- Sports professionals, forest health coaches
- Forest educators and guided walks leaders
Contribution of Green Forest Jobs to achieving SDG’s

3 Good health and well-being
Ensure healthy lives and promote well-being for all at all ages.

…promote the huge physical and physiological health benefits of forests and provide appropriate facilities to achieve these objectives.

11 Sustainable cities and communities
Make cities and human settlements more inclusive, safe, resilient and sustainable.

…promote and manage green infrastructures and urban forests within cities for a better quality of life.
An adventure park forester
A case study

Profession
- Forest worker with a specialisation in adventure park maintenance.

Key skills
- Physical performance.
- Adaptive work under different weather conditions.
- Specialist in forest maintenance and forest management.

Work undertaken
- Maintenance of adventure park facilities.
- Maintenance and management of forest ecosystems within the park area.
- Upkeep and maintenance of park signage.
- Communication with park visitors.
Specific potential of Green Forest Jobs
National and regional perspectives needed

- Forestry
- Health and recreation
- Education and Knowledge Transfer
- Biodiversity & Ecosystem Functioning
- Wood and Energy production
- Regional & land use development
- Social and urban development
- Forest Management, Inventory & Planning

Traditional / current Green forest jobs
Current non-traditional Green forest jobs
New Green forest jobs
«Green Forests Jobs have the potential to link the green economy with Sustainable Forest Management in a modern globalised world of continuous change!»

Thank you! Go raibh maith agaibh!