“The golden thread”: Sustainable Development Goal 4, *Education for all*, and forests

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SDG4  Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

We could adopt a narrow view of “Quality education in forestry”
The SDG 4 vision: ‘comprehensive, holistic, aspirational, ambitious & universal’

<table>
<thead>
<tr>
<th>FORMAL: leads to a recognized award, diploma or certificate</th>
<th>Early childhood education (ISCED 0)</th>
<th>Primary education (ISCED 1)</th>
<th>Lower secondary education (ISCED 2)</th>
<th>Upper secondary education (ISCED 3)</th>
<th>Post-secondary non-tertiary education (ISCED 4)</th>
<th>Short-cycle tertiary education (ISCED 5)</th>
<th>Bachelor's or equivalent (ISCED 6)</th>
<th>Master's or equivalent (ISCED 7)</th>
<th>Doctoral or equivalent (ISCED 8)</th>
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<tbody>
<tr>
<td>Special needs education, vocational, technical and professional education</td>
<td>Second chance education</td>
<td>Apprenticeships, practical applied learning, residential practices</td>
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<tr>
<td>Qualifications Framework Level 1</td>
<td>QF Level 2</td>
<td>QF Level 3</td>
<td>QF Level 4</td>
<td>QF Level 5</td>
<td>QF Level 6</td>
<td>QF Level 7</td>
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<tr>
<td>Early childhood care</td>
<td>Youth and adult literacy programmes</td>
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<td>Work skills training, professional development, internships</td>
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<td>Out-of-school programmes</td>
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<td>Life-skills training, health and hygiene, family planning, environmental conservation, computer training</td>
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<td>Family-based child care</td>
<td>Social or cultural development, organized sport, arts, handicrafts</td>
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<td>Self-directed, family-directed, socially directed learning; workplace, family, local community, daily life</td>
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<td>Incidental learning: reading newspapers, listening to radio, visiting museums</td>
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Source: GEM Report team.

UNESCO et al. 2016: 24 and Fig 0.1
Ensuring quality education is often about:

Improving education systems

- Improving access to education

### Education expenditure per capita

#### Developed

- Norway: 7.0%
- USA: 6.9%
- Ireland: 6.7%
- Switzerland: 6.6%
- Iceland: 6.4%
- Austria: 6.2%
- NL: 6.1%
- Sweden: 6.0%
- Belgium: 6.0%
- Denmark: 6.0%
- UK: 5.9%
- Finland: 5.6%
- Germany: 5.0%
- France: 5.0%
- Poland: 4.9%

#### Chile

- Argentina: 3.6%
- Mexico: 3.3%
- Venezuela: 3.1%
- Uruguay: 2.9%
- Panama: 2.5%
- Costa Rica: 2.5%
- Brazil: 2.3%
- Cuba: 2.0%
- Colombia: 1.9%
- Peru: 1.6%
- Dominican Rep.: 1.5%
- Ecuador: 1.4%
- El Salvador: 1.4%
- Bolivia: 1.3%

### Where is studying most expensive?

Average tuition fees at public institutions, 2013-2014, US$ PPP.

- England: 9,019
- US: 8,202
- Japan: 5,152
- South Korea: 4,773
- Canada: 4,761
- Australia: 4,473
- New Zealand: 4,113
- Israel: 2,957
- Netherlands: 2,300
- Italy: 1,602

Source: OECD

CIA World Fact Book, 2010

World Economic Forum, 2015
BUT .. will quality education actually lead to more sustainable forests? Not necessarily.

Building on research in Environment and sustainability education, we propose:

**Promoting pro-forest behaviour**

- A spectrum of forest-people relationships
- Conservation activities by individuals and groups
- SFM by public and private managers
- Engagement by Indigenous & local communities
- Forest and landscape restoration
- Product choices by consumers
### Pro-forest behaviour

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<thead>
<tr>
<th>Competencies</th>
<th>Personal characteristics</th>
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<tbody>
<tr>
<td>Critical, systems, futures and transdisciplinary thinking</td>
<td>Respect</td>
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<td>Problem-solving, analytical, communication, interpersonal and civic skills</td>
<td>Inclusivity</td>
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<td>Media literacy</td>
<td>Sense of agency</td>
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<td>Justice</td>
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<td>Maturity</td>
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<td>Peace</td>
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### Impacts of Progress on SDG4 on forests

1. Educated and inclusive society values forests
2. Knowledge about benefits of forests
3. Employment skills and opportunities in forest sector
4. Vocational – professional expertise for forest management

*Informal, non-formal and formal*

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Adapted from Ardoin 2017, Lozano 2017 & UForida 2017
Priorities for forest-related education

1. Encouraging pro-forest behaviour
2. Respecting Indigenous and traditional knowledge
3. Promoting forest-related environment and sustainability education (in each of formal, non-formal and informal settings)
4. Strengthening professional, technical & vocational education & training
5. Capitalising on the power of both established and new media.
1) Encouraging and Enabling Pro-Forest Behaviour

- Encouraging experiences & connections to forests
- Adapt for culture, urban/rural, income, etc.
- Embed in a landscape approach
- Build partnerships between actors
- Aim for policies, processes and outcomes
2) Respecting, Nurturing and Enabling Indigenous and Traditional Knowledge

- Including Indigenous and traditional knowledge in forest management can provide a wider range of options
- Need to address challenges around integration, governance and application
- A common theme is respect for and connection to the forest
3) Promoting Forest education: Formal, Non-Formal & Informal

**Formal**
- Environmental education has expanded, but is also facing some decline
- Experiential learning is especially effective (Outdoor classes)

**Non-formal**
- Working with families, small-holders and communities
- Effective with marginalised groups

**Informal**
- Experiential learning from Indigenous and local knowledge holders
- Passive learning from peers, media and observation in forests
4) Strengthening Professional, Technical and Vocational Education and Training

- Wider landscape approach to forests and forestry
- New modes of teaching including on-line and personalized
- Increasing need for broader knowledge in natural and social sciences, business and communications
- More integrated and interdisciplinary programmes
- Shift to professional masters in some countries
- Greater internationalization
5) Capitalising on the Power of the Media

- Print, Television, radio and other traditional medias remain important
- Engage, formally and informally, with new social media
- Education for media literacy is essential
Education - ‘the golden thread’ amongst SDGs

- Education is foundational in the SDGs
- But, promoting education is not enough
- We need to promote pro-forest behaviour to benefit forests and people
- Priorities:
  - Experiences and connections with forests and people
  - Indigenous and traditional knowledge
  - Formal, non-formal and informal settings
  - Professional, technical and vocational education and training
  - Power of old and new media