The Role of higher education in sustainability science for implementing the SDGs

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ESD and Higher Education

✓ Higher education constitutes the learning environment for all educational professionals; providing ESD literacy to all professionals is paramount;

✓ Leaders of higher education institutions are in a key position to contribute to an equitable and ecologically sound future by establishing SD as a central academic and organizational focus;

✓ Universities and higher education networks can conduct research and provide advice and guidance on strengthening national education systems as well as aspects of capacity building for sustainable development across different sectors;
ESD and Higher Education

Higher education institutions (HEI) can provide expertise and support to local ESD initiatives. They can combine the knowledge and experience at the local level with information housed at higher levels.

HEI can strengthen the interface between research findings and decision-making using evidence-based data, as well as problem-based scientific research.

Universities and higher education institutions have a key role to play in all of the ESD-GAP Priority Action Areas.
ESD and Higher Education – achievement over the last 10 years

Higher education has stepped up its efforts to support sustainable development:

• Higher Education Institutions (HEI) have made significant efforts to address sustainability in campus operations, supported by the development and sharing of tools and reporting frameworks

• New SD-related & specialized programmes and courses are on the rise.
ESD and Higher Education – achievement over the last 10 years...

- Networks of HED have emerged building capacity and promoting SD teaching
- HEI have extended the value and impact of their teaching and research at the local level and catalyzed community change
- Many higher education institutions are pioneers in adopting a whole-institution approach and are expected to lead this movement
Challenges for SD in Higher Education –

Translation of commitments to SD into implementation requires **coordinated change at multiple levels** – in governance, planning, academic programmes, facility management and financial systems.

Deeper innovation in **staff development** and across institutions is necessary to transform curricula and pedagogy.

**Disciplinary boundaries** continue to be barriers to the exploration of complex issues, and to the preparation of learners with the capacity to address complexity.
Integrate SD in Higher Education

01. Teach Sustainable Development

02. Encourage Research on Sustainable Development

03. Green Campuses and Support Local Sustainability Efforts

04. Engage and Share Information with International Networks
SOME Examples:

- **COPERNICUS Alliance** is a European network of 60 members and project-affiliated institutions committed to ESD.
- Spreading across a network of 370 universities, the **Global Universities Partnership on Environment and Sustainability (GUPES)** seeks to implement environment and sustainability practices into the curricula.
- The **Higher Education Sustainability Initiative (HESI)** was created by a consortium of UN entities in the run up to the United Nations Conference on Sustainable Development (RIO+20).
SOME Examples…

• The regional **Mainstreaming Environment and Sustainability in Africa (MESA)** network brings together over 100 academics from 77 African universities in 32 African countries, involving 29 regional and international partners.

• The **Higher Education for Sustainable Development (HESD) portal** is an information tool developed by the International Association of Universities (IAU) - [http://iau-hesd.net/en](http://iau-hesd.net/en)

• **Regional Centres of Expertise (RCEs)**, a global network of local multi-stakeholder networks including many HEIs – they are promoting ESD at the local level.
ESD prize Winner 2015: Rootability

Empowering students, staff and faculty to advance sustainability within their universities, universities of applied sciences and colleges

- Workshops & Trainings
- Process facilitation
- Green Office Model
- Green Office Movement

www.rootAbility.com
ESD prize Winner 2016: National Student Union UK (NUS)

• The NUS, one of the world’s largest student organizations.
• Green Impact is a wide-ranging project to promote sustainability in the 600 colleges and universities where NUS members study, their living spaces, cafeterias, and more.
• The ten-year-old programme has completed over 250,000 greening actions.
Designed to measure and improve sustainability literacy

https://www.sulitest.org/en
Health and Well-being
Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Gender Equality
Global Indicator: Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education.

Decent Work and Economic Growth
Target 8.6: By 2020 substantially reduce the proportion of youth not in employment, education or training.

Responsible Consumption & Production
Target 12.8: By 2030 ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

Climate Change Mitigation
Target 13.3: Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.
Education for Sustainable Development Goals

Learning objectives
Aims of the Guidance Framework

✓ Provides orientation on how to use ESD for learning for the SDGs

✓ outlines indicative learning objectives as well as suggestions and examples for topics and learning activities for each SDG

✓ describes implementation strategies on different levels from course design to national strategies

✓ supports education officials, policy makers, educators, curriculum developers and others in designing strategies, curricula and course

✓ contributes to developing all learners’ capacity to contribute to the achievement of the SDGs within their timeframe until 2030
Structure of the Guidance Framework

**Part I:** introduction to the SDGs, ESD, and the possible contribution of ESD to achieving the SDGs;

**Part II:** sustainability competencies and indicative cognitive, socio-emotional and behavioural learning objectives, topics and pedagogical approaches for each of the 17 SDGs;

**Part III:** recommendations and illustrations of strategies for how ESD can be implemented at different educational levels and in different settings general learning objectives, topics and activities for each SDG learning objectives, topics and activities should be regarded as suggestions and are not exhaustive.
### Example: Learning objectives Climate Action (SDG 13)

| Cognitive learning objectives | 1. The learner understands the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases.  
2. The learner understands the current climate change as an anthropogenic phenomenon resulting from the increased greenhouse gas emissions. |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Socio-emotional learning objectives | 1. The learner is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.  
2. The learner is able to understand their personal impact on the world’s climate, from a local to a global perspective. |
| Behavioural learning objectives | 1. The learner is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.  
2. The learner is able to support climate-friendly economic activities. |
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