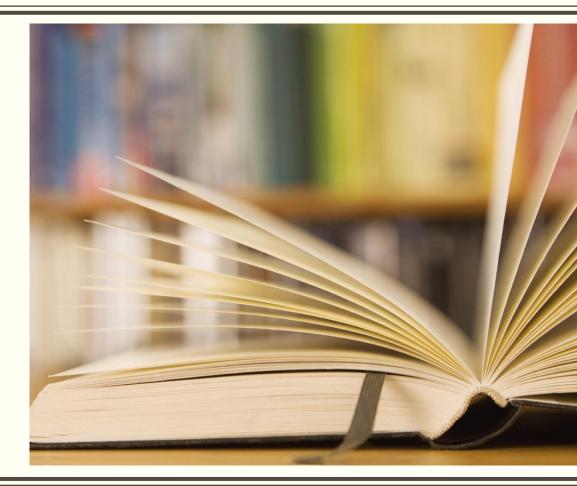


## GREENING THE UNIVERSITY CURRICULUM MODEL AS TOOL FOR SUSTAINABILITY TRANSITION

Ihor Soloviy, Dept. of Ecological Economics, Ukrainian National Forestry University



V4 Green Universities, Green Workshop, September 22, 2020

Visegrad Fund

# **Sustainable University**

Systematic and comprehensive integration of sustainable development principles in all fields of activity of the educational institution

Management, administration and operations Educational programs and educational process

Cooperation with stakeholders

Local and national priorities



International initiatives of education for sustainable development



Transformation of education on the basis of sustainability aim

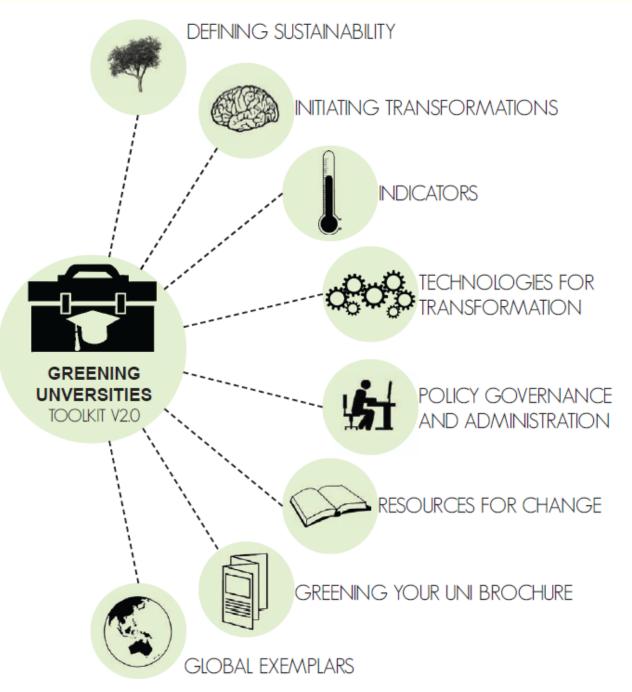
- 14-1 РОЗВИТОК ТА БЕЗПЕКА **РОЗВИТОК** МІСЦЕВИХ СЕРЕЛОВИШИ СПІВРОБІТНИКІВ СПІВРОБІТНИКІВ ГРОМАД ТА ЕНЕРГОробимо все можливн ЕФЕКТИВНІСТІ ворюємо комфортні у об зберегти життя і здоров для життя на територія: сутності Групи, а також роб ботодавцями у відповідн сталий розвиток Україн взаємодія ПРОДУКЦІЇ ТА ПОСЛУГ ІЗ ЗАЦІКАВЛЕНИМИ волонтерство СТОРОНАМИ га надаємо сучасні та зручн послуги, що відповідають
- Universities must meet the demands of modernity, evolve as dynamic institutions, "laboratories of social innovation", which are always one step ahead of any social change
- The latest approaches to the management of educational institutions are an integral part of the transformation of education on the basis of sustainability
- The are many "success stories" of the which have achieved the greatest success in the filed of transition to sustainability

Promote research on sustainable development

## Develop green campuses

Declaration on the Commitment of Educational Institutions to Implement Sustainable Development Practices, Rio + 20

Support the efforts of local communities to implement sustainable practices Build cooperation on the exchange of results of international networks Which steps are needed to create a "sustainable" university?



UNEP, 2014

## Educational networks for sustainable development

- The movement of the world towards sustainability is largel due to the unification of educational institutions into international networks, which actively promote the exchange of experience and dissemination of best practices from all over the world::
- Baltic University Program (1990),
- Association of University Leaders for a Sustainable Future (1992), Environmental Association for Universities and Colleges (1996)
- The Association for the Advancement of Sustainability in Higher Education (2005),
- Australasian Campuses Towards Sustainability (2006),
- Higher Education Sustainability Initiative for Rio+20 (2012).







# International networks and initiatives

## Support from





Introduction

- 1. Historical background and concepts
- 2. Energy and Climate
- 3. Resources
- 4. Urbanisation

5. Production & Consumption

- 6. Life, Food and Fibres
- 7. Mobility
- 8. Welfare & Life Style
- 9. Politics
- 10. Economics
- 11. Change
- 12. Education

## Contents of the BUP Sustainable Development Course

1. Historical background and concepts

1a. Stories of societies which succeeded or collapsed

1b. The UN process - from Stockholm to Johannesburg

1c. Understanding sustainable development1d. What we believe in - our values and sustainable development

#### 7. Mobility

7a. A culture of mobility
7b. Means of mobility – technology and systems
7c. Freight
7d. Policies and management of mobility

#### 8. Human welfare and sustainable life style

8a. Demography and population change



HOME

# Greening of Education: Ukraine's Contribution

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**BROWSE COMMITMENTS & PARTNERSHIPS** 

## Description/achievement of initiative

IIAREP and partners commit to cooperate with Ukraine's Ministry of Education to disseminate the greening of education concept at the national level. We are committed to introducing the programs of greening of education throughout Ukraine by 2014, when the "Decade of Education for Sustainable Development" ends. Through the Rio +20 Dialogues and side event, the organizing partners are committed to promoting the concept of greening of education internationally. The implementation of this concept is crucial for the formation of green thinking and the building of a green economy, and accordingly, should be included in the output documents of "Rio+20".

ACTION NETWORKS

ABOUT

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HOME BROWSE COMMITMENTS & PARTNERSHIPS REGISTER

#### Implementation methodologies



For training specialists in sustainable development, International Institute-Association of the Regional Ecological Problems (IIAREP) ensured the scientific development and practical implementation of the greening of education concept in the Ukrainian National Forestry University (UNFU, Lviv) over the past 15 years. This was achieved through cooperation with the Universities of Freiburg (Germany), Gent (Belgium), and Padua (Italy) in the framework of the EU Program Tempus-Tacis projects. The primary result was the introduction in 1998 of a new Master's degree specialty in ecological economics. This experience prompted inclusion of environmental requirements in all curricula at the local level (i.e., at UNFU). IIAREP and partners are cooperating with Ukraine's Ministry of Education to disseminate the greening of education concept at the national level. We are committed to introducing the programs of greening of education throughout Ukraine by 2014, when the "Decade of Education for Sustainable Development" ends. Through the Rio +20 Dialogues and side event, the organizing partners will promote the concept of greening of education internationally. The implementation of this concept is crucial for the formation of green thinking and the building of a green economy, and accordingly, should be included in the output documents of "Rio+20".

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UNIVERSITAS INDONESIA

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命 ① greenmetric.ui.ac.id/

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## **UI GreenMetric Agenda in 2018**

- The 4th International Workshop on UI GreenMetric (IWGM) hosted by Universitas Diponegoro 8-10 April | Semarang, Indonesia
- **IREG Forum** 23-25 May | Hasselt, Belgium
- ISCN Conference 11-13 June | Stockholm, Sweden
- **CRUI Working Group on International** Academic Rankings 21 September | Roma, Italy
- IAIA Conference 1-3 October Kuching, Malaysia
- **Global Symposium on Green Campus Development** 26 October | Beijing, China

National Workshop and Technical Workshop on UI GreenMetric World University Rankings hosted by

University of Zanjan and

- Atyrau State University 25 April | Atyrau, Kazakhstan
- King Abdulaziz University (KAU) 9 2 May Jeddah, Saudi Arabia

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- **Nottingham University** 22 May | Nottingham, UK
- National University of Colombia and University del Rosario 5-6 June | Bogota, Colombia
- Univerity of Sao Paulo (USP) 12 7-8 June | Sao Paulo, Brazil
  - Pakistan Higher Education Commission 9 July Pakistan
  - Universiti Utara Malaysia 19 July | Kuala Lumpur, Malaysia
  - Institut Teknologi Sepuluh Nopember (ITS) 19-20 September | Surabaya, Indonesia
    - **Riga Technical University** 5 October | Riga, Latvia
  - Universidad Tecnica Federico Santa Maria November | Valparaíso, Chile

УКР

10/10/2018



### **Participants by Country**



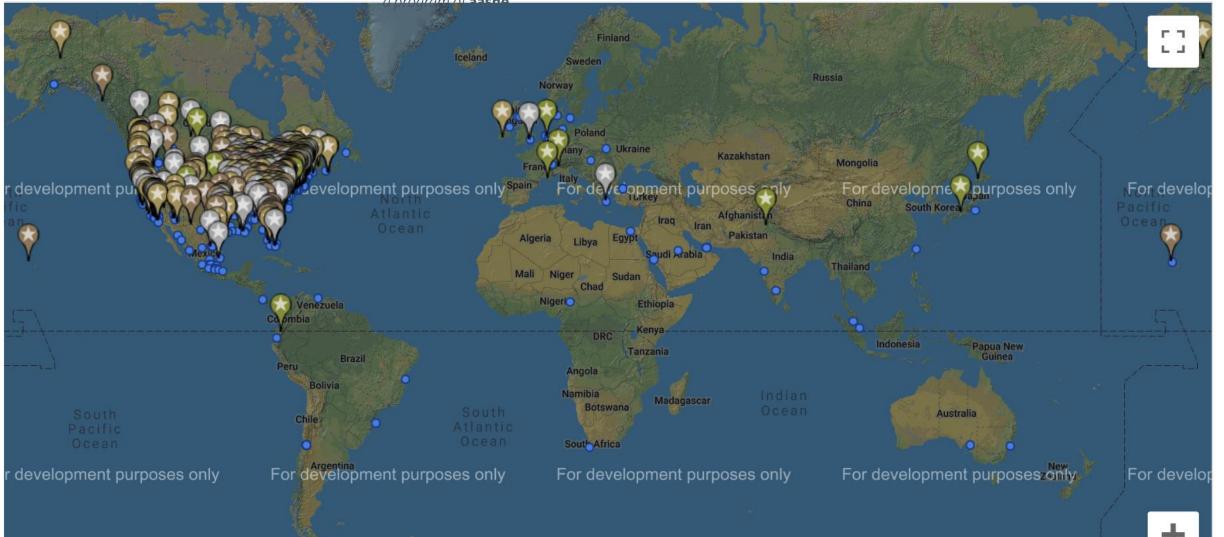


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$\leftrightarrow$ $\rightarrow$ O	https://stars.aashe.org/institutions/participants-and-report	ts/?sort=name			□ ☆	∽≡	l_	Ŕ	
	Tulsa Community College <sup>m</sup>	United States , OK							^
	Ukrainian National Forestry University	Ukraine , Lviv Oblast							
	Union College - NY m	United States , NY							
	Unity College <sup>m</sup>	United States , ME	2.1	Gold	Nov. 27, 2017				
	Universidad Americana	Nicaragua							
	Universidad Autonoma de Madrid	None							
	Universidad Autonoma de Queretaro	Mexico , QE							
	Universidad Autonoma de Tamaulipas <sup>m</sup>	Mexico , TM	2.1	Silver	Nov. 27, 2017				
	Universidad Metropolitana - UNIMET	Venezuela, Bolivarian Republic of							
	Universidad Nacional Autonoma de Mexico <sup>m</sup>	Mexico , DF							
	Universidad San Francisco de Quito	Ecuador , Pichincha	1.2	Reporter *	Dec. 25, 2013				
	Universidad Tecnologica Metropolitana (Chile)	Chile							
	Universidad Tecnológica de Nezahualcóyotl	Mexico							
	Universidad Tecnológica de Querétaro	Mexico , Querétaro							
	Universidad de Chile	Chile , Region Metropolitana							
	Universidad de Monterrey m	Mexico , NL	2.0	Silver	Feb. 27, 2017				
	Universidade Aberta	Portugal							1
	Universidade Federal de Santa Catarina	Brazil , Santa Catarina							
	Universidade Federal do Sul da Bahia	Brazil , Itabuna - BA							
	Universite Laval <sup>m</sup>	Canada , QC	2.1	Gold	Dec. 23, 2016				
	Universite de Montreal	Canada , QC	2.1	Silver	Dec. 2, 2016				

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University College Cork - National University of Ireland , Co. Cork

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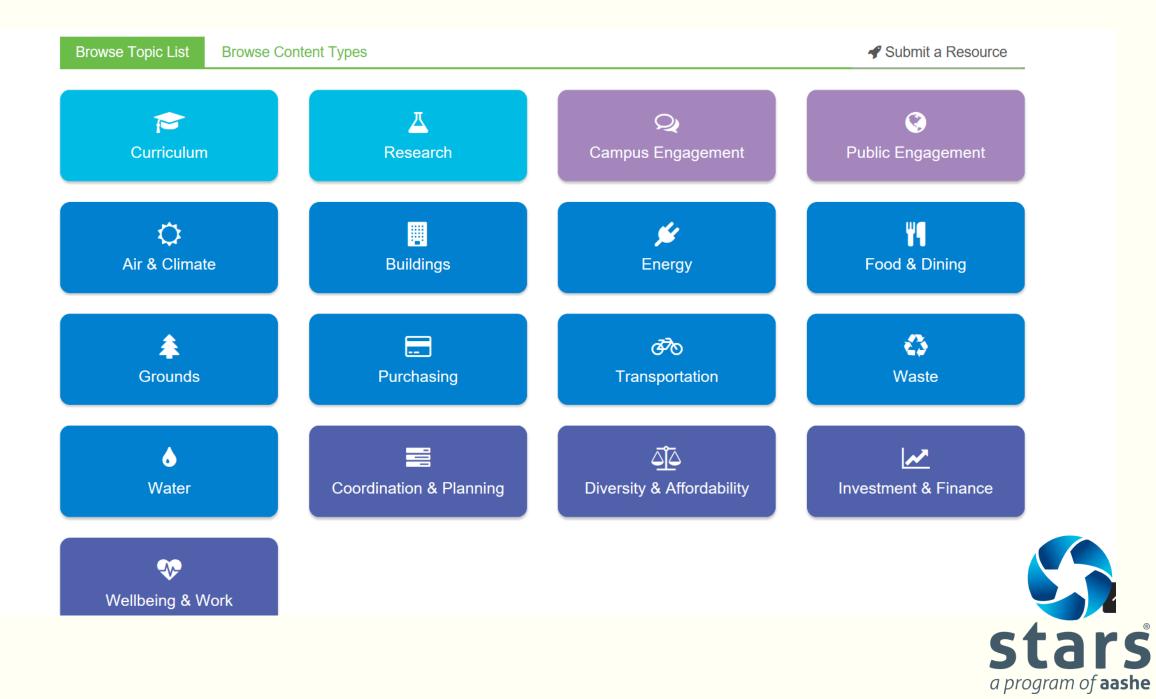
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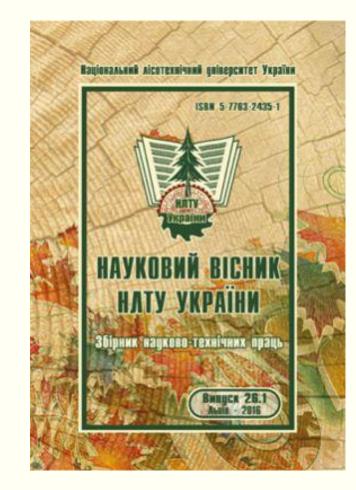
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July 20, 2018



## **RETHINKING EDUCATION** What does "greening of education" mean?

*Greening of Education* – the process of saturation of educational programs for training specialists in all specialties with environmental requirements - understanding the causal relationships between human activities and its environmental consequences.



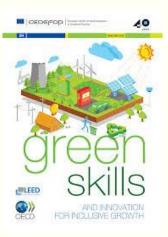
**Ecological competence is one of the key competencies of a graduate** 

**Knowledge** causal relationships between economic activity and its environmental consequences;

**Understanding unity and interdependence of economic** (production) and ecological (natural) systems;;

**Skills** to combine in practice the interests of economic and ecological systems;

**Integrity and responsibility** for active actions to achieve the goals of sustainable development for the benefit of man and society.



# **Key principles of activity of ecologically competent specialist**

"AD NATURAM VIVERE DISCIMUS"

- 1. Taking into account the 'ecological boomerang" effects of material production
- 2. Priority of preventive measures in the field of environmental protection.



Education for Businessis Development in Act Stand Procession 972 - 2007 UNESCO Education Sector

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## Sustainability Field Core Competencies

Interpersonal & Communication Competence

Ability to enable, facilitate, and motivate collaborative and participatory sustainability learning, thinking, and action.

#### Creative & Strategic Competence

Ability to collectively envision, develop, implement, and assess transformative interventions for sustainability.

## Transformative Sustainability Work

#### Systems Competence

Ability to collectively analyze complex systems across multiple domains (cultural, environmental, economic, political, etc.) and at varying scales (local to global) through considering cascading effects, inertia, feedback loops, emergence, and other systemic features in order to develop insights related to sustainability issues, challenges, and opportunities (past, current, and future).

#### Critical and Normative Competence

Ability to collectively create, discover, experience, negotiate, communicate, and activate sustainability-oriented principles and goals.

#### Transdisciplinary Competence

Ability to draw, in critical and integrative ways, upon multiple disciplinary frameworks to inform sustainability-oriented thinking and action. Entails epistemological literacy: understanding multiple ways of knowing, including their respective methodologies, applications, benefits, and limitations. Also entails collaboratively and inclusively applying sustainability competencies to foster social change.

•<u>Evans, 2019.</u> Competencies and Pedagogies for Sustainability Education: A Roadmap for Sustainability Studies Program Development in Colleges and Universities<u>.</u> Sustainability 11(19):5526

## Events related to sustainability, UNFU (2019):

February / Kyiv Communique From the 1<sup>st</sup> Workshop on the Environmental Impact and Economic Sustainability of Nord Stream 2 and other Sub-Marine Natural Gas Pipelines;

September / The summer school of Baltic University Program for the "Sustainability Innovations in a Circular Economy";

Visit of Professor Pierre Ibisch: open lectures for students and teachers (Eberswalde University of Sustainable Development);

Seminar on the application of Open Standards for Nature Conservation Practices (Within the framework of the DAAD project Transboundary Cooperation in Teaching and Practice);

Spring break and restoration of Cherry Grove laid by Klimenty Sheptytsky in the Regional Landscape Park "Demolition" etc...













Thank you