



Bioeconomy

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1st of February 2019



- Environmental economics and policy
 - Definitions, main terms
 - Sustainable development
 - Ecosystem services of forest
 - Wood and its role
- Ecotourism
 - Definition

Environmental economics and policy - definition

- Interdisciplinary branch
- Deals with production of sustainable biological resources and their transformation to products used by the society
- Goals of bioeconomics
- Why do we speak about bioeconomics?

Environmental economics and policy - definition

- Bioeconomics – based on sustainable resources
 - Biotechnological knowledge
 - Renewable biomass
 - Integrations in various applications
- History of bioeconomics
- Progress of bioeconomics in the world (Finnish example)

Environmental economics and policy - definition

- Priorities of bioeconomics:
 - Food
 - Climate protection
 - Health
 - Biodiversity
- Bioeconomics in forestry:
 - Forests do not only produce biomass
 - Includes all economic activities related to forests and forest ecosystem services

Environmental economics and policy

Sustainable development

- Definition: publication Limits of Growth (Donella and Dennis Meadow and William Behrens), 1972
- UNO 1987: „Sustainable development is development satisfying the needs of the present without weakening the possibility of future generations to fulfill their own needs.“
- Supported by legislation in the Czech Republic
- 2002 conference of UNO in Johannesburg emphasized this concept

Environmental economics and policy

Sustainable development

- Pillars of sustainable development:
 - Environmental,
 - Social,
 - Economic.
- Application of sustainable development – in the forestry act, in the nature protection act etc.

Ecosystem services of forest

- There are many definitions and concepts of ecosystem services/functions of the forest
- Different authors present different concepts, varying by country
- The main assumption for multifunctionality is free access to the forest

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Ecosystem services of forest

- Forest functions are divided to:
 - Productive
 - Wood production
 - Deer breeding, game management
 - Other
 - Non-productive
 - Forest fruits
 - Soil protection
 - Hydric (water quality)
 - Air protective (CO2 binding etc.)
 - Health and hygiene
 - Cultural - educational
- Free access to the forest

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Ecosystem services of forest

- Millennium Ecosystem Assessment (2005): (order by preference)
 - Food,
 - Wood (timber and fuel),
 - Clean water,
 - Regulation of diseases and flood,
 - Carbon absorption,
 - Local climate regulation,
 - Healing substances,
 - Recreation,
 - Aesthetics, spiritual value



Environmental economics and policy

Wood and its role

- Structural viewpoint
- Physical viewpoint
- Mechanical viewpoint

- Furniture manufacture
- Timber houses

Ecotourism

- Combination of tourism and ecology
- The wealth obtained by the region thanks to ecotourists is to help protect the original nature and human community.
- Ecotourism by definition cannot be a mass sport for mass tourism usually entails damage to the environment and quick change of life of the local population.
- Negative effects, such as burdening the environment by long-distance travel, mainly air travel, to remote locations, and change of the way of life of the local population for the reason of adapting to tourists and their needs

Ecotourism

- “Tourism to areas of ecological interest (typically exotic and often threatened natural environments), especially to support conservation efforts and observe wildlife; spec. access to an endangered environment controlled so as to have the least possible adverse effect.”
- “Responsible travel to natural areas that conserves the environment and improves the well-being of local people.”
- “Responsible travel to natural areas that conserves the environment, socially and economically sustains the well-being of local people, and creates knowledge and understanding through interpretation and education of all involved (including staff, travelers, and community residents).”

- **The principles of Ecotourism:**
 - Build Environmental & Cultural Awareness
 - Design & Operate Low-Impact Tours/Facilities
 - all about sustainability, minimizing the negative carbon footprint travel often leaves on the environment
 - Provide Financial Benefits for Conservation
 - Provide Financial Benefits for Local People
 - True ecotourism **MUST** provide financial benefits to local people, whether through direct (tours, admission fees, and donations) or indirect means (such as taxes on travel or accommodation).
 - Support Human Rights

Ecotourism

- Ecotourism principles in action:

<https://greenglobaltravel.com/what-is-ecotourism-10-simple-steps-to-more-sustainable-travel/>

Ecotourism

Ecotourism principles in action:

- Pack Light
- Save Water
- Save Energy
- Reduce / Reuse / Recycle
- Buy Local
- Leave only Footprints
- Be a traveler, not a tourist
- Honor Local traditions
- Give back
- Shop smarter

- **The benefits of Ecotourism:**
 - Benefits to Wildlife - lions
 - Benefits to the Environment
 - Benefits to Local People – Costa Rica and local communities
 - Benefits to Travellers

Ecotourism

- **Ecotourism in our hands:**
 - What do you do in Laos??
 - Personal experiences??
 - Governmental attitude, support?



- ...ANY QUESTIONS?
- ...THANK YOU FOR YOUR ATTENTION!



Publications

- Peter H. Pearse: Introduction to Forestry Economics, 1990 UBC Press
- Shashi Kant et. al: Economics, Sustainability, and Natural Resources (Economics of Sustainable Forest Management), 2005 Springer
- Ihor P. Soloviy et. al: Ecological Economics and Sustainable Forest Management, 2009 Ukrainian National Forestry University Press
- Shashi Kant et. al: Institutions, Sustainability, and Natural Resources (Institutions for Sustainable Forest Management), 2005 Springer