

ECOLOGICAL ENGINEERING

Definition

The design of sustainable ecosystems that integrate society with its natural environment for the mutual benefit of humans and nature. It is a recent branch of engineering that has developed with two goals:

1. The restoration of ecosystems that have been significantly disturbed by human activities (e.g. pollution); and
2. The development of new sustainable ecosystems that allow human activities.

The term has been introduced in connection with the restoration of rivers and other water bodies. In relation to Renewable Energy it can refer to shaping and forming the landscape to perform an engineering or RE function.

Related terms

Energy-conscious design

Keywords

Ecosystem based adaptation, Eco-technology, Ground-bioengineering, Environmental planning, Restoration

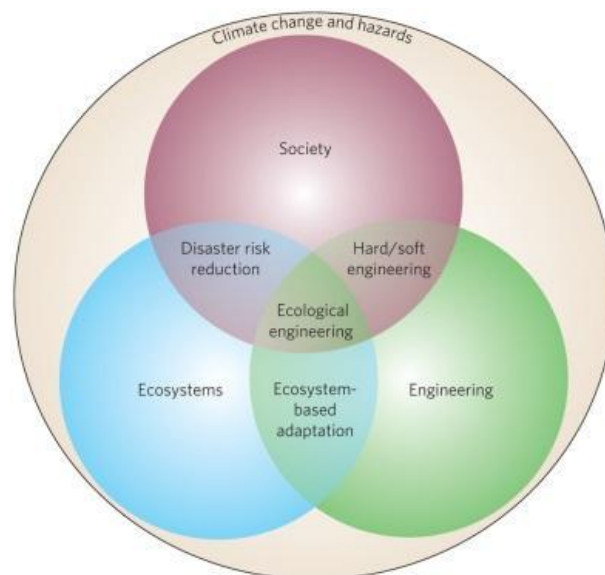


Figure 33 Ecological Engineering within the climate change and hazard framework.
(Source: Cheong et al. 2013)

Source

Mitsch W. J. 2012: What is ecological engineering? *Ecological Engineering*, 45: 5–12.

Mitsch W.J., Jørgensen S.E. 1989: *Ecological Engineering: An Introduction to Ecotechnology*. John Wiley and Sons, Hoboken, New Jersey.

Translations

Bosnia and Herzegovina Ekosistemske tehnologije/Eko-inženjering

Bulgarian Еко-технология или еко-инженеринг (в смисъл на използване на ландшафта като платформа за инженерно строителство/възобновяеми източници за енергия)

Croatian Ekoloski inženjering

Czech Ekologické inženýrství

Danish No translation provided

Dutch No translation provided

Esperanto Ekteknologio aŭ ekoingĝenierio

Estonian Õkotehnoloogiad

Finish Ekoteknologia

French Eco technologie, éco-ingénierie

German Umweltingeneering (*as a mix of DE and EN*)

Greek Οικοτεχνολογία

Hebrew הנדסה סביבתית

Hungarian Ökológiai szemléletű tervezés/környezettudatos tervezés

Italian Tecnologia ecocompatibile

Islandic Visttækni / vistverkfræði

Latvian Eko-tehnoloģija vai eko-inženierija

Lithuanian Eko-technologija; eko-inžinerija

Montenegrin Ekološki inženjering

Polish Ekotechnologia lub ekoinżynieria

Portuguese Engenharia Ecológica; ecotecnologia

Romanian Ecotehnologie sau ecoinginerie

Russian Эко-технология или эко-инженерия

Slovenian / not used

Serbian Екосистемске технологије

Spanish Eco-tecnología o Eco-ingeniería

Swedish Miljöteknik