

**ID811      CONCEPTUAL FOUNDATIONS & PERSPECTIVES OF SUSTAINABLE  
DEVELOPMENT 3-0-1 4**

**AIM**

The purpose of this course is two-fold.

First, to develop the theoretical and knowledge foundation on the concept of sustainable development and to gain an empirical understanding of the emerging global challenges for sustainable environmental and societal governance systems.

Second, to improve the communities, student's and researcher's ability and sophistication in creating the necessary information links and feedback loops within the system to allow the systems actors to possess wholesome understanding to develop sustainable solutions. This would enable to visualise various factors that impact sustainability and propose a plan of action for building sustainable communities.

**1. Course Learning Outcome:**

- How sustainability considerations can actually be embedded within an individual's and community's day to day activities and decision making processes
- How existing sustainable development tools and methods can be adjusted/fine-tuned accordingly
- How to design sustainability performance metric to assess the impact on community's sustainable development
- How to design feedback systems that can readjust the pathways of processes and procedures to ensure success in implementing sustainable development initiatives.
- How to empower communities set sustainability targets using appropriate metrics

**2. Learning Outcomes**

- **Knowledge and Understanding**
  - i. Understand the basic concept of Sustainable Development (SD), the environmental, social and economic dimensions.
  - ii. In depth learning and analysis of factors that support to achieve sustainability and resilience in an individual level and in a community
  - iii. Develop an encompassing understanding of sustainability issues.
  - iv. Understand the embedment of sustainability issues in environmental, societal, and economic systems, and the relevance of the conditions, interrelations, and dynamics of these systems.

- v. Be familiar with potential strategic options for SD (efficiency, sufficiency).
  - vi. Be able to discuss the (dis-)advantages of instruments for SD.
  - vii. Demonstrate knowledge and understanding of the current sustainable development policies followed by selected countries.
  - viii. Demonstrate capability in designing specialized methodology for designing and implementing localized sustainable development measures.
  - ix. Understand the SD challenges for communities, industries, and academic institutions, their responsibility and their potentials for action.
- **Competence and Skills**
    - i. Demonstrate knowledge to integrate and analyze, assess and deal with scenarios, and issues
    - ii. To enhance critical thinking skills and evaluation of information sources
    - iii. Be able to discuss the conflicts which are involved in the SD concept on the local, national as well as on the global scale.
    - iv. To be able to identify different stakeholders in a challenge to sustainability, and analyze the political and economic structures that connect them.
    - v. Ability to assess the sustainable practices of any community based on metrics
    - vi. Become critical and proactive thinkers and, with this, successful leaders in the field
  - **Judgement and Approach**
    - i. Demonstrate judging capability of the impact of any decision on the sustainable development metric of a community
    - ii. Approaches for assessing and judging the impact of processes, and activities of sustainable development and community resilience of a community

### 3. Syllabus

#### **Introduction to Sustainable Development: Glimpse into History and Current practices -**

Broad introduction to SD - its importance, need, impact and implications; definition coined; evolution of SD perspectives (MDGs AND SDGs) over the years; recent debates; 1987 Brundtland Commission and outcome; later UN summits (Rio summit, etc.) and outcome.

**Ecosystem & Sustainability:** Fundamentals of ecology - types of ecosystems & interrelationships, factors influencing sustainability of ecosystems, ecosystem restoration - developmental needs. Introduction to sustainability & its factors, requirements for sustainability: food security and agriculture, renewable resources - water and energy, non-renewable resources, factors and trade-offs, sustainability conflicts, a conceptual framework for linking sustainability and sustainable development.

**Dimensions to Sustainable Development** - society, environment, culture and economy; current challenges - natural, political, socio-economic imbalance; sustainable development initiatives and policies of various countries : global, regional, national, local; needs of present and future generation - political, economic, environmental.

**Gauging Sustainable Development** - Sustainability and development indicators and SDGs, UN's outlook of sustainable development and efforts, UN SDGs - structure, governance and partnerships; communities / society: ensuring resilience and primary needs in society; biosphere: development within planetary boundaries; strengthening institutions for sustainability; shaping a sustainable economy.

**Frameworks of Sustainability** - Analytical frameworks in sustainability studies, sustainability metrics: criteria and indicators; the significance of quantitative and qualitative assessments of sustainability; current metrics and limitations; metrics for mapping and measuring sustainable development; application of the metrics in real scenarios

**Critical Perspectives on Sustainable Development: Resource management and implications on sustainable development** - implications for valuation, risk assessment; integrated decision-making processes: requirements of information, information flow, data analytics, learning from historical data, multicriteria decisions, multi level decisions, participatory decisions ; translating impact chains to information flows - impact of governance and policies

**Case Studies & Projects on Rural Sustainable Development (Indian village perspectives)** - Village resources (broad perspectives); current challenges and thematic areas; village social hierarchy; village economy; needs of present and future generation; conflicts - sustainability and rural culture & tradition; road to achieving sustainable development goals - bridging conflicts and way forward

#### 4. Text Books/Reference Material

- Franco, I.B. and Tracey, J. (2019), "Community capacity-building for sustainable development: Effectively striving towards achieving local community sustainability targets", *International Journal of Sustainability in Higher Education*, Vol. 20 No. 4, pp. 691-725
- *Our Common Journey: A Transition Toward Sustainability*. National Academy Press, Washington D.C. Soubbotina, T. P. 2004.
- Elliott, Jennifer. 2012. *An Introduction to Sustainable Development*. 4th Ed. Routledge, London.
- Rogers, Peter P., Kazi F. Jalal, and John A. Boyd. "An introduction to sustainable development." (2012).
- Sachs, J. D. 2015. *The Age of Sustainable Development*. Columbia University Press, New York.
- Soubbotina, Tatyana P. 2004. *Beyond Economic Growth: An Introduction to Sustainable Development*. WBI learning resources series. Washington DC ; World Bank.
- Kerr, Julie. *Introduction to energy and climate: Developing a sustainable environment*. CRC Press, 2017.
- Saito, Osamu. *Sharing Ecosystem Services*. Springer Singapore, 2020.
- Nhamo, Godwell, and Vuyo Mjimba. *Sustainable Development Goals and institutions of higher education*. Springer, 2020.

- Bell, Simon, and Stephen Morse. Sustainability indicators: measuring the immeasurable?. Routledge, 2012.
- Sørensen, Bent. Energy, Resources and Welfare: Exploration of Social Frameworks for Sustainable Development. Academic Press, 2016.
- Dent, David, Olivier Dubois, and Barry Dalal-Clayton. Rural planning in developing countries: supporting natural resource management and sustainable livelihoods. Routledge, 2013.
- Sala, Serenella, Biagio Ciuffo, and Peter Nijkamp. "A systemic framework for sustainability assessment." *Ecological Economics* 119 (2015): 314-325.
- Gasparatos, Alexandros, and Anna Scolobig. "Choosing the most appropriate sustainability assessment tool." *Ecological Economics* 80, no. 0 (2012): 1-7.
- Stafford-Smith, Mark, David Griggs, Owen Gaffney, Farooq Ullah, Belinda Reyers, Norichika Kanie, Bjorn Stigson, Paul Shrivastava, Melissa Leach, and Deborah O'Connell. "Integration: the key to implementing the Sustainable Development Goals." *Sustainability science* 12, no. 6 (2017): 911-919.
- Streimikis, Justas, and Tomas Baležentis. "Agricultural sustainability assessment framework integrating sustainable development goals and interlinked priorities of environmental, climate and agriculture policies." *Sustainable Development* 28, no. 6 (2020): 1702-1712.