

Sustainable Development

By:

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Introduction

- Development is a continuous process. Even the most developed countries strive to develop further.
- All indices of development pertain to well being and comforts of human beings.
- **‘In this world or elsewhere all attitudes to obtain the things are aimed at happiness’ – Mahabharata.**
- **Development so far:**
 - Uneven
 - Outcome of greed in man.
 - Environmental degradation

Sustainable Development?

- Sustainable development (SD) can help in remediation of damaged environment.
- **1972** - international conference in Stockholm, Sweden “sustainable development” phrase first used.
- Brundtland Commission report ‘**Our Common Future**’ in 1987.
- **Earth Summit (1992)** – Rio de Janeiro (United Nations Conference on Environment and Development)
- **‘Development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs’.**
 - “To improve the quality of life while living within the carrying capacity of ecosystems”.
IUCN (The World Conservation Union), 1991
- **Agenda 21:** a blue print to achieve SD
 - Improve efficiency of resource utilization.
 - Strengthen scientific basis for SD.
 - Improve long term scientific assessment.
 - Build up national carrying capacity.

- **2000 - United Nations Millennium Summit -** United Nations Millennium Declaration, to reduce extreme poverty with a series of time-bound targets - with a deadline of 2015 - that have become known as the **Millennium Development Goals**.
- **2002** - World Summit on Sustainable Development (**WSSD**) took place in South Africa.



SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS




SUSTAINABLE DEVELOPMENT GOALS





MODELS OF SUSTAINABLE DEVELOPMENT

Three Pillar Basic Model

This is one of the most well-known models created using the three dimensions -Economy, Environment and Society.

The diagram shows three interlocking circles with the triangle of environmental (conservation), economic (growth), and social (equity) dimensions.

Sustainable Development is modelled on these three pillars.

social

Environment Economy

Dimensions of sustainability

Need for Sustainable Development

- The socio-economic system can be considered as a natural ecosystem in which materials are being transformed and energy is converted to heat.
- Socio-economic system is dependent upon natural ecosystem for energy and as a sink for wastes.
- Resource use and waste disposal takes place in same environment and both activities affect the life supporting system of the environment.
- Hence, socio-economic system can't expand indefinitely since it is limited by definite global

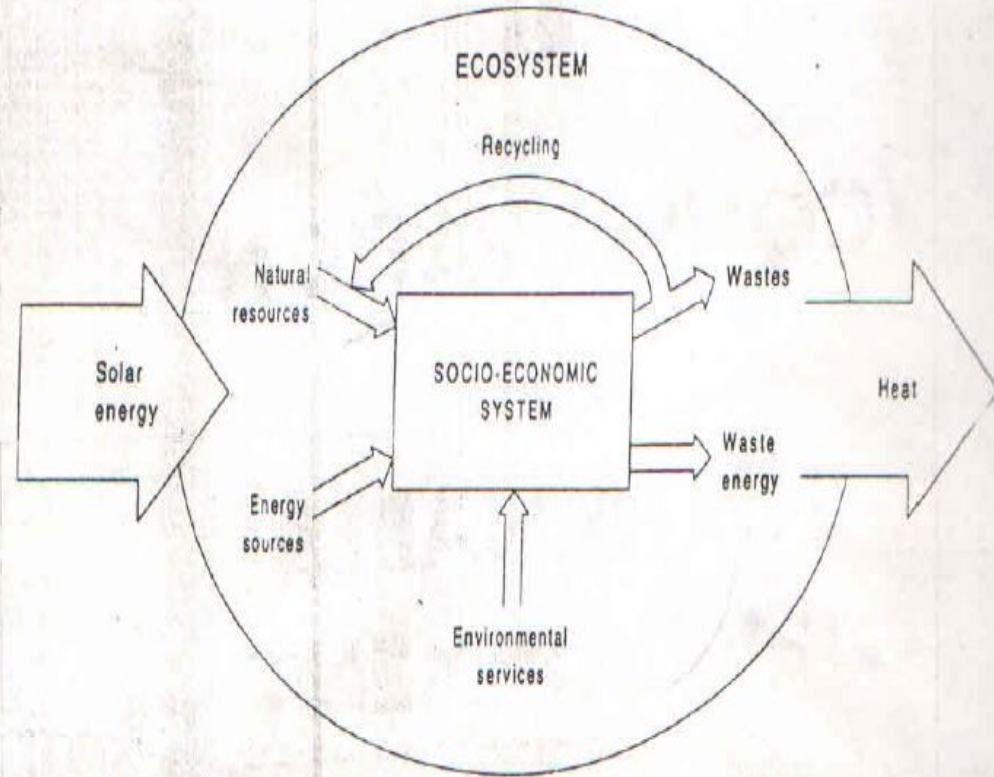


FIGURE 21.1 The socio-economic system as part of the global ecosystem (after Folke and Jansson, 1992; Daly, 1993)

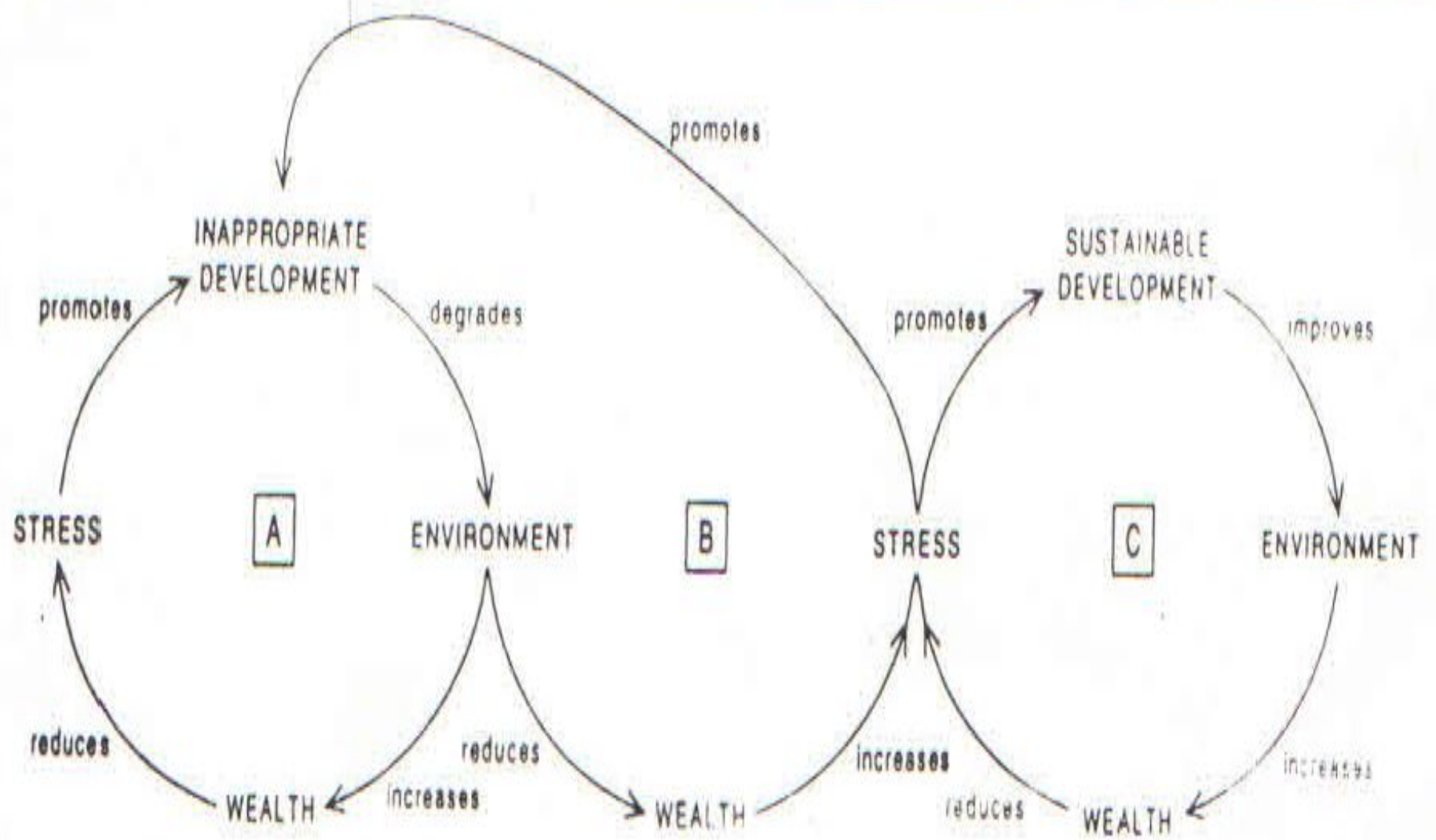


FIGURE 21.3 Three cycles showing the relationship between modes of development and the environment

Cycle 'A' – Economy of Historical Times

- It is explaining global economy of historical times where **wealth** was accumulated largely by **degrading environment**.
- This wealth brought numerous **advances** to most parts of the world and **reduced stress**.
- It resulted in **inappropriate development** but the **assimilative capacity** of earth was higher than today.

Cycle 'B' – Economy of Present Times

- When same society enters in Cycle 'B', the degraded environment begins to feedback on socio-economic wealth, and stress is increased.
- The stress again promotes in-appropriate development.

Cycle 'C' – Sustainable Development

- Appropriate way to exist Cycle 'B' is to enter Cycle 'C' where socio-economic needs are to be adjusted from a parasitic relationship to a symbiotic relationship.
- By adopting sustainable development we can live within the confines of the biosphere, enhance environmental quality and achieve greater wealth by changing the pattern of resource consumption.

Strategies for Sustainable Development

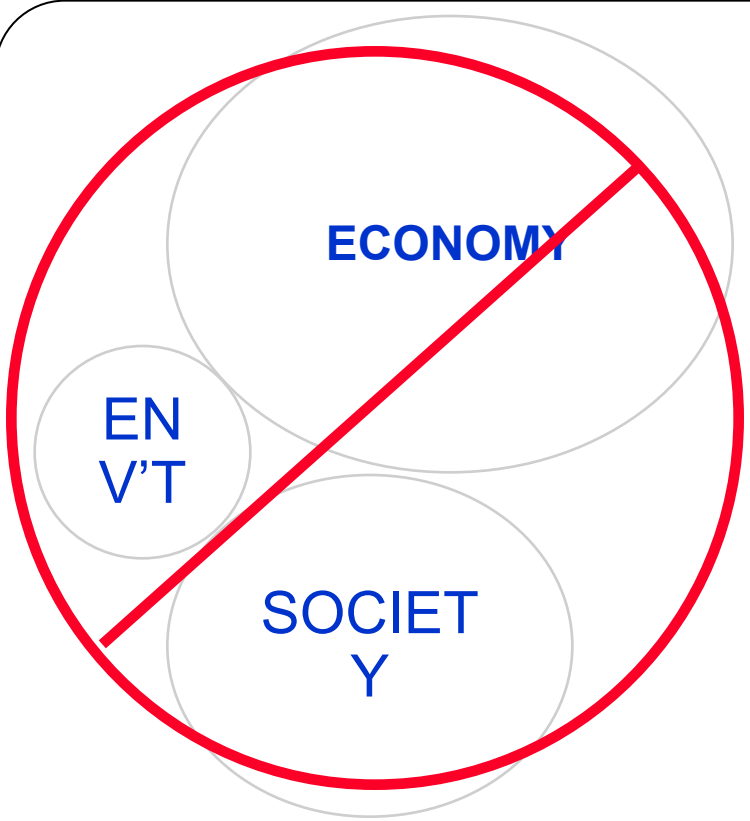
- There should be paid greater attention to the problems of poor people (income, health, & education etc.).
- Ensure local input in planning and management of resources. Local people often have valuable ecological knowledge that is overlooked by planners.
- Proper resource pricing
- Improve resource availability.
- 3R's Principle: Recycle and reuse materials and promote lower consumption.
- Develop renewable sources of energy.

SD Challenges in India

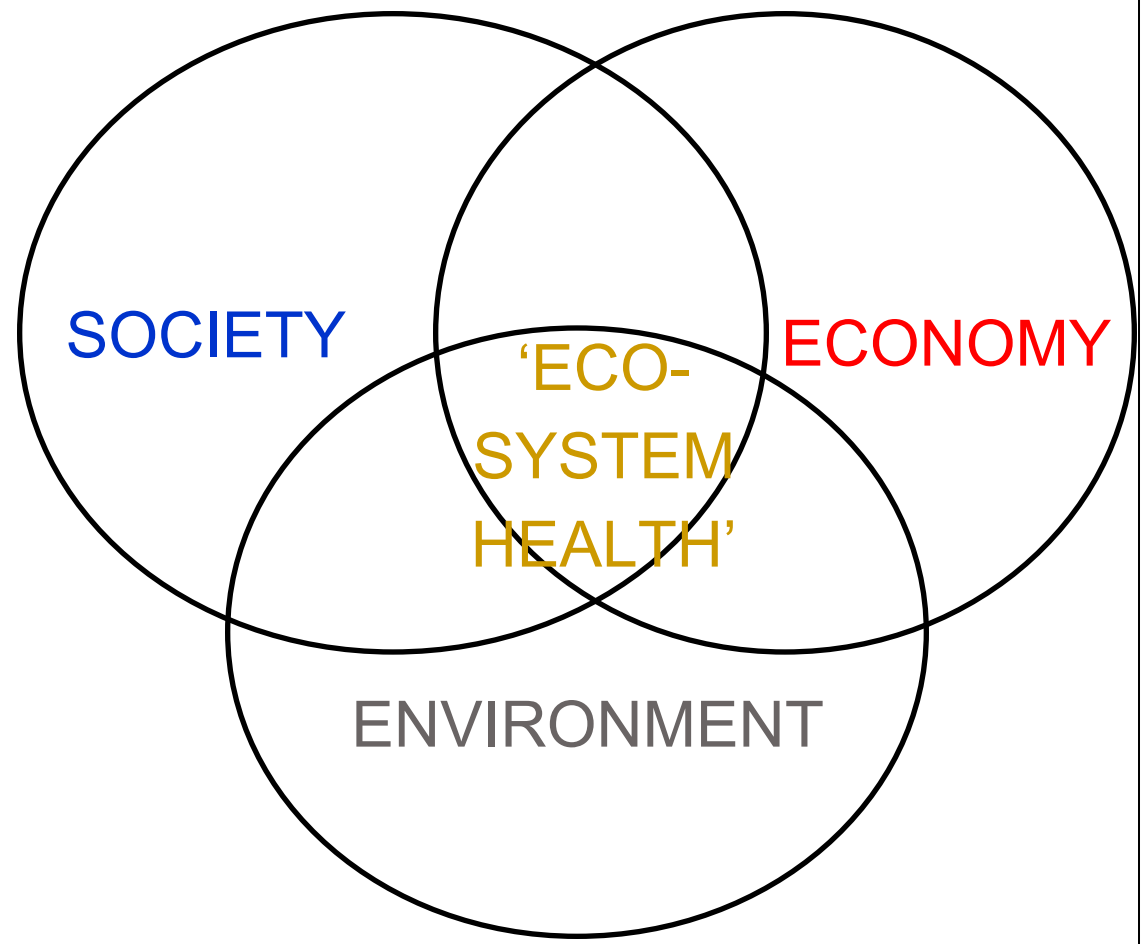
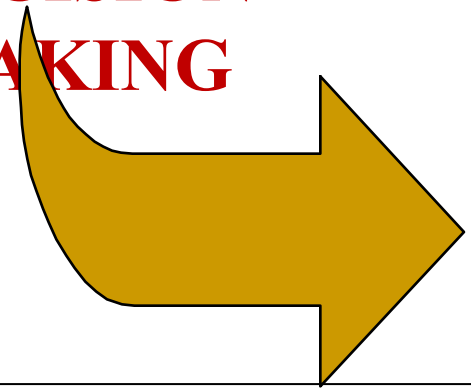
- Deforestation
- Practicing monoculture
- Shifting cultivation
- Conventional agricultural practices
- Pollution
- Water supply – urban and rural
- Power supply
- Water resource management
- Waste management
- Inequity
- Species loss
- Resource depletion

Steps Taken for SD

- Substitution of resources i.e. clean and renewable fuel resource.
- Pollution prevention – all type.
- Develop alternative sources of energy.
- Afforestation
- Organic farming
- Proper waste management



**TRADITIONAL
DECISION
MAKING**



**ECOSYSTEM-BAS
ED
DECISION
MAKING**

Sustainable Future

- Everyone should realize that a sustainable future lies in our own hands.
- There should be the need to change the ways in which socio-economic system work in order to reduce environmental impacts.
- Human beings should realize that they are the part of nature and not separate from it.
- Thus continuance of human survival depends on our ability to stop destruction of natural systems which will regenerate our planet.

THANK YOU.