

GEOG 370.00/712.00
Geography of Sustainable development in the developing Countries
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Introduction

- Development means progress.
- The three components of sustainable development
- 1- Economic development ----- 2- People involvement ----- 3- Environmental conservation
- Top-down approach based mainly on economic growth and development
- 1- Economic growth that leads to development in all aspects of life
- which leads to prosperous and the wellbeing of the individuals.
- As a result, Top-down approach succeeded in the developed countries and failed in the developing countries.
- 2- To ensure sustainability, planners must involve people.
- This goes in line with an alternative approach which is called Bottom-up approach.
- Bottom-up approach has a chance of success in the developing countries.
- 3- Environmental conservation has to go in harmony with economic growth.
- In other words, natural resources should be wisely used.
- Mismanagement and over exploitation of resources will lead to environmental degradation.
- This will lead to environmental problems such as water depletion, water pollution, deforestation, soil erosion and desertification.

The need for sustainable development

- Why are we looking for a new approach of development?
- The answer is simple.
- Because the old approach which is also called trickle-down or Top-down approach has failed in the developing world.
- As a result, both the magnitude of poverty and the number of the world poor has increased.
- Today, masses of people around the world are living in a degraded environment, poverty and hardship.
- This is because of the failure of development and failure of managing human environment.
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History of development – 1960s:

- Formal effort of international development started after WW II, in the 1960's.
- with the formation of United Nations development Program (UNDP).
- The 1960's is considered the first development decade.
- At that time, much optimism was felt among nations and international community.
- They were hoping that developing nations could easily be developed and all of their development problems could be solved through transfer of:
- 1- Finance, 2- capital, 3- technology, 4- industrialization, 5- training, 6- scientific knowledge (Top-down approach), 7- development experience.
- This is known as Development Theory or Modernization Theory.
- At that time few of the developing countries were independent states.

- while the majority were either going through the process of independence or fighting for it.
- Most of development assistance was confined to low-tech in the field of agriculture such as building of dams:
 - to irrigate agricultural fields (mainly large-scale farms which cultivate cash crops,
 - to generate hydropower (for industrial and domestic use).
- Most large-scale farms were government owned projects,
- where local people are used as partners or seasonal agricultural labors.
- Large-scale farming (modern agriculture) were established in areas occupied by peasant farmers (small-scale farmers) and herders.
- Both peasant farmers and herders have become partners in these large-scale farming.
- Hence, both of them subjected to a radical change in their life style.
- Their mode of production was changed from being subsistence to commercial economy.
- Besides agriculture development took the form of light industries which does not need skilled labors (i.e. textile industry, cookies, candies, glasses, furniture, canning food, beverages, light metal industries (cups, plates etc ...).
- However, industry was subjected to many problems such as:
 - lack of capital, political instability, lack of transportation, over taxation, administration, storage facilities and international monopoly.
- The main objective of the development program was to achieve a minimum of 5% of annual economic growth rate by the end of the decade.
- Despite generous support of the developed countries to the developing countries,
- by the end of the decade (1960s), development theory had achieved little success.
- In addition, it has resulted in many development and environmental problems.
- In agriculture, the main sector of economic development (Top-down) it suffer from poor performance and the lack of investment in small holdings except (the green revolution) in southeast Asia.
- Lack of transportation, over taxation, lack of storage facilities and monopoly of the international market that result in low prices of crops.
- Agricultural has resulted in environmental degradation such as desertification, deforestation, over-cultivation, water pollution).
- On the other hand, industry suffered from the lack of capital (investment), international competition and contributed to environmental degradation such as air and water pollution and global warming.

General signs of failure of development or modernization theory by the end of 1960s:

- 1- Severe inequalities of income and wealth between and within countries of African and Latin American countries.
- 2- A large number of the developing countries were unable to achieve 5% of annual economic growth as well as slow growth of social development.
- 3- Signs of environmental degradation were observed (water and air pollution, desertification)
- Therefore, by the end of the 1960s, Optimism faded away.

Mid-term exam Q (1)

Development in the 1970's

- The 1970s was the second UNDP decade.
- Inequality between and among developing countries and the rate of poverty have increased.
- Accordingly, optimism of a quick ending of underdevelopment faded away.
- Despite few of the developing countries had achieved economic growth.
- But the benefit of such growth was not distributed equally among the population of these countries.
- However, the benefit of growth was not distributed equally among the population of these countries.
- Hence, the gap between rich and poor people in the same country has increased as well as between rich and poor nations.
- As a result, development planners thought of alternative path of development, which targeted the poorest sector of the society.
- Therefore, they addressed the problem of poverty directly through “anti-poverty” programs.

- Therefore, new literature and programs in the area of development such as “**absolute poverty**”, “**basic needs**” and “**redistribution with equity**” emerged. (seeds of sustainability).
- This is what has led to the emergence of rural development programs which addressed the problem of poverty and development among the poorest sector of the society.
- Unfortunately, the increase of oil prices in 1973 had led to **Oil crisis** and stagnation of development which followed by a **worldwide recession**.
- High oil prices have increased industrial products as well as food prices and transportation.
- This slowed down the economic growth and affected the cooperation between donor countries and the developing nations.
- Because of the recession, unemployment had increased in donor countries.
- Therefore, assistance to developing countries had reduced substantially.
- programs of rural development were slowed down and almost stopped.
- Rising of oil prices means increase of manufacturing goods.
- This had resulted in high prices of consumer goods which could not compete with lower prices in the international market.
- In turn, unemployment in the western countries increased.
- Consequently, aid to developing countries has been reduced which negatively affect development theory in these countries.
- To solve this problem, developing countries have to borrow money from financial institutions such as the World Bank and IMF.
- However, because of the combination of the low prices of raw materials, corruption and mal-economic policies in the developing countries,
- They were unable to pay back their loans and they got into **deep debt crisis**.
- Both oil crisis and debt crisis hindered sustainability and contributed to the failure of development theory.

Mid-term exam Q (2)

Another form of development theory is the Green Revolution

- The Green Revolution has tremendously increased cereals such as maize, rice and wheat in the developing countries by 25% and 50%.
- **Governments**, above all in Asia, funded agricultural research and extension to promote the new high-yielding varieties of **maize, rice, and wheat**.
- Governments also complemented this by **building roads** and **irrigation works** (such as pumping ground water),
- Governments provide **inputs on credit** and guaranteeing to buy surpluses from farmers.
- Since the beginning of the 1980s and with the implementation of globalization, and privatization policies as well as Structural Adjustment Programs, green revolution suffered.
- These policies are based on strengthening the private sector.
- Governments are not allowed to intervene in development.
- As a result, development suffers from equity and failure in achieving stability and sustainability of food production. For example,
- Farmers with small or marginal holdings have benefited less than large-scale farmers.
- Intensive monocropping has made production more susceptible to environmental stresses and shocks (pest and diseases, rainfall variability ...)
- There is an evidence of diminishing return from intensive production with high-yielding varieties (HYVs)..
- This means even with the use of agricultural in-put there is a decrease in crop production

Social and ecological costs of the Asian Green Revolution

- Replacement of locally-used crops with cash crops for export, and associated replacement of polycultures (mixed farming) with monocultures
- Land degradation and soil nutrient depletion through overuse of synthetic fertilisers and pesticides, led to destruction of soil life.
- Negative health impacts for rural communities as a result of pesticide poisonings;
- Water pollution and waste;
- A focus on a few high-yielding varieties resulted in a narrowing of agricultural and wild biodiversity;
- Sharp rises in input costs, resulting in greater indebtedness of small-scale farmers and consequent loss of farmland;
- Concentration of land holdings, and rising social inequality
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Development in the 1980's

- The 1980s were the 3rd UNDP decade.
- Failure of development theory has reached a point that the 1980s has been recognized in the literature as a “**lost decade**”.
- Situation of economic development of the developing countries reached a dead lock (impasse).
- New thoughts and directions of development were entertained by academicians, planners, economists and decision-makers.

- First, academicians and development theorists call for new development thinking.
- A writer like Chambers in 1974 and 1983 called for “**Putting the last First**” and “**People First**”.
- This aimed at changing the approach of development from “**Top-down**” to “**Bottom-up**” approach.
- It is referred to by others as “**Sustainable Development**”.

- However, new approaches and policies of development emerged such sustainable development, structural adjustment, neoliberal and privatization policies and globalization.
- For this reason, the 1980s are considered a transitional period between two different approaches of development.

- Sustainable development aimed at enhancing social development so that it should go hand-in-hand with economic development.
- Sustainable development doctrines that development should start with the people themselves because they acquire a great deal of knowledge about their environment.
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- Collective action enhances the self-helped effort, which considered as one of the most important elements of rural and sustainable development.
- They have a science of its own based on a day-to-day practice with the environment and referred to as **indigenous or local knowledge**.

- Combination of indigenous knowledge with scientific (western science) will give better results of development.
- Based on this idea, the concept of **participatory approach** has emerged, which has become the most popular and important element of sustainable development.

- **participatory approach** in studies of sustainable development continues to the present.
- The main idea behind the support of bottom-up approach was the mechanism of survival, adaptation, and coping of the poor with the natural disasters.

- From this observation scholars and planners found that cultural norms and traits of the poor cope with adversities of nature and also bare the loss.
- Therefore, people's culture, experience and value system can be utilized in the process of development.

Mid-term exam Q (3)

Development since 1990s to present

participatory approach

- Scholars from 1980s to present called for combination of Top-down approach with the Bottom-up approach. In other words, combination of modern scientific approach (Top-down) with people involvement through their local knowledge (Bottom-up). This has led to the emergence of new approach is call participatory approach. It is believed that this approach will achieve sustainable development for the developing country.
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Local knowledge and sustainable development:

- In other words, people's local knowledge could be used in development.
- This approach stems from the fact that the poor acquired this knowledge over centuries through "trial and error". through direct contact with nature on a day-to-day basis.
- Unlike western "Science" which has been initiated in laboratories first and then applied in nature.

People's local knowledge is also called

- indigenous knowledge, people's science, village science, ethno science, folk science and folk ecology.
- For example, peasant farmers' detailed agro-ecological knowledge, includes crop selection, ranking and maintenance, soil taxonomy, ethnobotany, ethnobiology, weather and micro-climate analysis; and forest and land management.
- On contrast, indigenous knowledge was seen for a long period of time by western scientists as unsystematic, imprecise, misguided, superficial, and thus lacking legitimacy in mainstream thinking or just plain wrong.
- Therefore, western scientists think local knowledge cannot be used for the basis of development similar to the modern scientific system.
- However, while both systems function within their own socio-cultural domains, it is erroneous to think of one as "scientific" and the other as "folk" knowledge; each has elements of both.
- Since local knowledge is based on practical daily experience using environmental resources in a flexible way.
- Therefore, scholars argued that the combination of this grass root ethno-scientific data (local knowledge) with standard scientific approaches provides a fuller understanding of local knowledge than either one alone.
- As a result, scholars called for people participation and people involvement in the process of development, together with the scientific approach have led to the emergence of what is call participatory approach.
- As a result, scholars called for people participation and people involvement in the process of development.
- Combination of local knowledge with the modern scientific approach has led to the emergence of what is call participatory approach.

- The point was further illustrated by scholars who argue that problems of environmental change, soil erosion and resource management are more complex than can be dealt with through: “simplistic”, “linear”, “orthodox” and “received wisdom” approaches alone.
- Instead, writers call for a new more comprehensive people oriented, democratic, “pluralistic”, “hybrid” and “participatory” approaches.
- This can incorporate indigenous knowledge in decision of improving agricultural production and resource management in general.
- Participatory approach showed success in the fields of: resource management,
- drinking water supply and sanitation, and forest management.

Mid-term exam Q (4)