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3.2 Development theories

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Public policy-making by governments, international agencies, donors, etc., is a product of a mixture of economic, political, ideological, cultural, religious, and mythological ideas, patterns, concepts, and models. Here, the most important development theories are summarized. There is a tendency that one theory becomes fashionable in a certain time and place, and its limitations as well as the wisdom in the others are simply forgotten.

The concept of development

Although development is a highly situation-specific, subjective, ambiguous, and widely argued concept, some typical features can be detected and used in a comparative sense. The developed countries (DCs) or the north, when compared to less developed countries (LDCs), developing countries, the Third World, or the south, typically have higher levels of income, capital stock, education, technological capability, infrastructure, service and industrial base, and income equality. The political and economic institutions in DCs are typically more democratic, stable, and effective.

Success in all them is understood as development. It is common that a country that shows advance in some of these directions also develops in the others. In economic terms, development seems to be unavoidably linked to savings and investment. Development process needs human resources and capacity, both allowing the mobilization and efficient exploitation of resources. An institutional set-up is crucial.

According to Ehrlich (1990) and Esfahani (1996), *a country can be called developed, when it has acquired an institutional setup that allows it to mobilize resources and carry out changes necessary to systematically and effectively deal with problems that the country is facing*.

The concept of development is jeopardized too often with the use of highly reduced indicators such as GNI, purchasing power parity-adjusted GDP, Human Development Index, etc. This is because simple, operational concepts are needed in policy-making and comparisons. There is a danger that too simple indices are being used as indicators of such a complex issue as the development of a country (Chapter 4.5).

Time passes, ideas come and go

Even the recent history has witnessed sharp ideological and political changes in many countries the world throughout. The 1990s have seen the collapse of most former communist countries and certain dominance shift from USA and its Western allies to Japan and its Asian partners. The consequent global economic restructuring process has yielded such trends as liberalization of trade, increased privatization, decreasing public sector, and growth of the informal sector.

There are many positive development signs, although the instability of the global economic system has been felt very strongly by economically liberalized countries such as Indonesia, Brazil, Thailand, and many more. These trends have reflected in the popularity and development of theories as outlined below.

The policies of international organizations tend to come along with such transitions. Those changes have also been reflected in national policies and in the policies of foreign development assistance donor organizations, concerning the exploitation of natural resources. It would be overly courageous to suppose that such changes would not take place in the coming few decades, and therefore, within the framework of this book, it is useful to present the key theoretical concepts behind development thinking and consequent planning and policy making.

The theories are only a narrow projection of societies and their development. Still, they offer highly useful patterns of thinking and conception of macro-scale phenomena and actions taking place, even in water resources development. For instance, the planning-optimistic era (top-down) has been largely replaced by an emphasis on bottom-up approaches stemming from public awareness, transferring decisions to the lowest institutional level possible, etc., as was summarized in Chapter 3.1. The strong government paradigm is, yet, already evolving (Stiglitz 1998), since tendencies such as these appear to evolve like a pendulum, moving from one end to the other.

The most important pre-World War II development theories can be summarized as follows. More comprehensive analyses have been presented by, e.g.,

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Ward et al. (1991), Drakakis-Smith (1992), Nafziger (1997), and Todaro (1997).

The classical economy

The classical economy (Adam Smith 1723-1790) has the following cornerstone: The only real measure of value is labor, and the division of labor makes the production more efficient. In contrast to *mercantilism*, which offered protectionism, markets should be allowed to function freely.

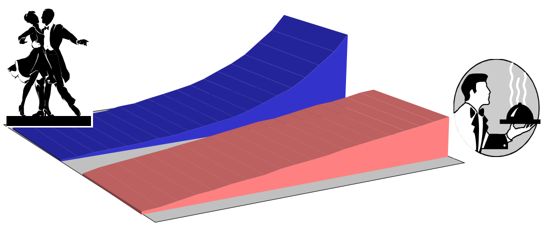
The government should provide the legal framework: *law and order*. Other interventions should be minimal. Only government investments to infrastructure such as canals and roads were advocated. The classical views have been challenged by, a.o., the theories described below.

The Malthusian view

According to Thomas Malthus (1766-1834), food production is bound to grow arithmetically while population growth is geometric. The land becomes a limiting resource, and marginal returns will be diminishing. The population size would be controlled by famines, diseases, wars, etc. (Figure 3.2a).

The major criticism against Malthusian views have been due to the ignorance of technological progress, and to the underestimated impact of education, industrialization, economic modernization, urbanization, among other issues, that have been observed to reduce fertility rates in modern societies, yielding the so-called demographic transition (see Figure 7.1a).

Figure 3.2a
Malthusianism
Population growth is geometric, whereas the growth in food production is arithmetic.



The theory of economic stagnation

This classical theory by Ricardo (1772-1823) is pessimistic about the possibility of economic growth. Availability of arable land limits growth (in this respect in similar terms to Malthus). Diminishing returns – marginal productivity decreases when population grows – would yield a decreasing standard of living.

Technological progress could only temporarily check diminishing returns, and capital formation was seen the only way of postponing or avoiding them. The theory has been criticized above all of the underestimation of the impact of technological advance.

Marxism

The historical materialism of Karl Marx (1818-1883) is based on the dialectic view of productive forces and production relations. The following development pathway was proposed: Societies develop from *primitive communism* consecutively through s*lavery, feudalism* and *capitalism* to *socialism* and finally to *communism.*

The small business people including farmers will lose the control over their workplaces due to the growth of monopolies. The wage level is controlled by the reserve army of the unemployed. The proletariat revolts, takes over the control of capital, and establishes socialism. While entering to communism, the state withers away.

According to Marx, *water and air as basic commodities should never be subjected to economic charge.* They should be always freely available to anybody. This argument is still used frequently, e.g., against the statements of the Dublin Principles and the Rio Earth Summit statements (cf. Chapter 3.1), according to which water should be considered as a scarce resource with both economic and social value. Marxists are not the only opponents of the tendency that water should also have an economic value.

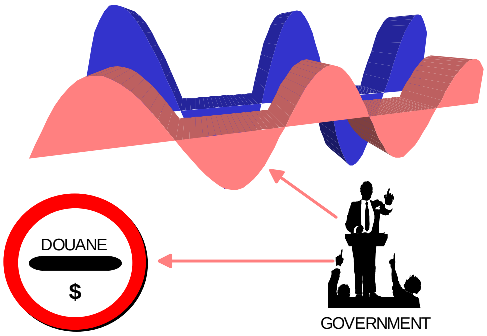
The major critics have been directed towards the development pathway, which has not been withstanding with observed realities, as well as towards the exaggeration of the contrasting interests of different classes of the society. This theory was highly popular in many parts of the world until 1980s, but it suddenly became disliked in the shift of the decade to 1990s, by the collapse of the USSR.

The Keynesian view

In the theory of J.M. Keynes (1883-1946), prevention of economical crises was proposed by adjustment of demand through government control of credit and currency (Figure 3.2b). The employment in a country increases with growing GNP. Unemployment should be diminished by either private consumption and investment, or through government spending. The latter applies particularly to periods of economic recession.

The strongly controlling role of the government has been criticized, along with the observation that the growth of employment is likely to be slower than the output growth. Therefore, there exists a trade-off between output and employment, particularly from the public investment standpoint. Furthermore, Keynesianism has been criticized as being unsuitable to developing countries due to their limited ability to interventions and economic control, and to the observation that the urban pull forces are often remarkably enhanced.

Figure 3.2b
Keynesianism
The government has a strong role in controlling credit and currency, and it also stabilizes business cycles with public savings and investments.



After the World War II, there has been a rich input to development theories. According to Nafziger (1997) and Todaro (1997), the key contributions have been the following.

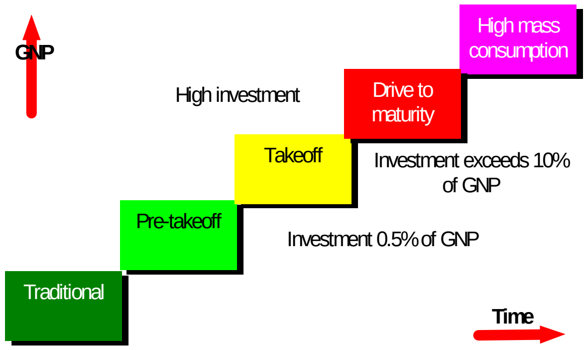
The stages of economic growth

Rostow's approach from the early 1960s proposed that the development of societies follow the subsequent stages:

- *A traditional society*. In Europe and North America, this situation prevailed in the pre-18th Century.
- *Preconditions to take-off*: improved infrastructure, revolution in agriculture, and expansion of foreign trade.
- *Takeoff*: a decisive expansion transforming country's economy and society with indicators such as rapid growth in the investment rate and at least one manufacturing sector, plus a speedy development of the political, social and institutional framework.
- *The drive to maturity:* regular, self-sustained growth period with predominantly urban labor force.
- *The age of high mass consumption*.

Rostow's model is also known as the linear growth theory (Drakakis-Smith 1992). It has been criticized of being imprecisely defined and hard to test in practice, but nevertheless, it has been a widely accepted theory, especially in the 1960s in the U.S. and many international agencies (Figure 3.2c).

Figure 3.2c
Rostow's stages of growth

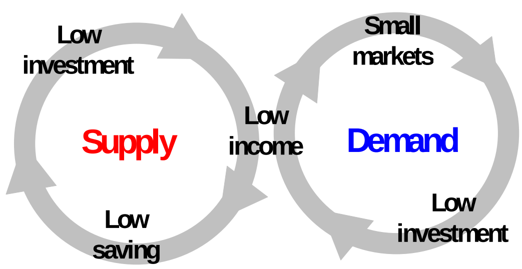


Vicious circles theory

The poverty is bound to various vicious circles, which perpetuate themselves (Figure 3.2d, see also Varis 1999). In the supply side of an economy, low incomes lead to a low savings rate, hence to low investment, which means low income. In the demand side, the circle from low incomes go to small markets, to low level of investment, and back to low incomes.

Therefore, it is very difficult for poor economies to become richer. This theory has been challenged by the observation that many low-income and middle-low-income economies have been able to show high growth rates that have sustained for years.

Figure 3.2d
The vicious circles theory



Balanced vs. unbalanced growth

A big (external) push of investments is a prerequisite to balanced growth, and the only way to break the vicious circles of poverty. Factors such as investments and infrastructure do not grow steadily, but sizable jumps are needed. Infrastructure is seen as a social capital that reduces costs to other industries. Economies of large scale are emphasized: large units have smaller unit costs, also in infrastructure including water sector.

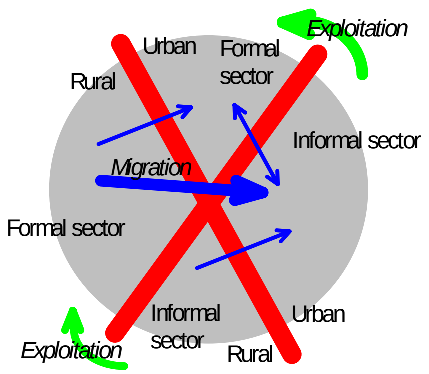
Hirschman's unbalanced growth thesis puts emphasis on the forward and backward linkages within an economy: public policy should favor the sectors that have high backward-forward linkages. Manufacturing has typically high, and agriculture low linkages.

However, critics claim that developing countries should not neglect agricultural production. Also the problems of high centralization and large units are noteworthy, and the experience from, e.g., former centrally planned economies has been discouraging in this respect.

Structuralist theories

The dualist theory of economic development is an umbrella term that covers concepts such as *sector theory, marginalization theory;* and *structuralist approach* (Drakakis-Smith 1992, Nafziger 1997, Todaro 1997). A society can be subdivided into a traditional and a modern sector (Figure 3.2e). The former is characterized by agriculture, handicraft manufacturing, etc., while the latter consists of industrial manufacturing, modernized agricultural industry, etc.

Figure 3.2e
Dualist view of a society



In the traditional sector, there is usually surplus labor with marginal productivity of labor close to zero. The modern sector can provide increasing capital intensity and high marginal productivity.

Today, the division is often made between informal and formal sectors (e.g. de Soto 1989), and the former is no longer considered as unproductive: in many urban centers in the third world, the informal sector may contribute up to 90% of all economic activity. Individuals are not often able to smoothly adapt to changes; within urbanization, falling into social and economic marginals such as squatters that are within the informal economy.

These theories have increasingly been incorporated into development strategies since the 1980s on, although the dualistic nature of societies does not always show such sharply distinguishable patterns as the theory suggests.

Dependency theory

In the global scale, one can distinguish areas of development and underdevelopment. They can be called center (or *core*) and *periphery*, which are interconnected and interdependent.

Typically, the periphery is more dependent than the core, in terms of financial, technological, managerial and entrepreneurial dependency, and is exploited by the core. Urban centers in the periphery diffuse underdevelopment rather than development. Development and underdevelopment would be two sides of the same coin; a zero-sum game. This results in an international division of labor.

This approach was popular in the 1960s and 70s. Extremists claimed that the only way for a developing country for independence would be to withdraw from the world capitalist system, or at least to nationalize the basic industries.

This approach has faced severe problems due to empirical evidence: Huge practical problems have emerged in establishing a development strategy along these lines. Some developing countries (periphery) have developed, but not along these lines. The key role of capacity has not been acknowledged by the dependency theory.

World-systems theory

This approach can be seen as the successor of the dependency theory in many ways. It has relaxed the contrasts between the core and the periphery, and proposes intermediate, semi-peripheral concepts as well. These clusters are global, but local counterparts – such as urban centers – can be seen as well (Figure 3.2f). The division of production systems lacks the Marxistic flavor of the dependency theory: there is a single mode of production, capitalism, which is superimposed over varied forms of labor control. Global accumulation theory favors the core. The semi-peripheral countries (newly industrialized countries, former centrally planned economies) are often competitors of the core. The theory has gained popularity since the 1980s, but critics pay attention to its abstractness and low operationality.

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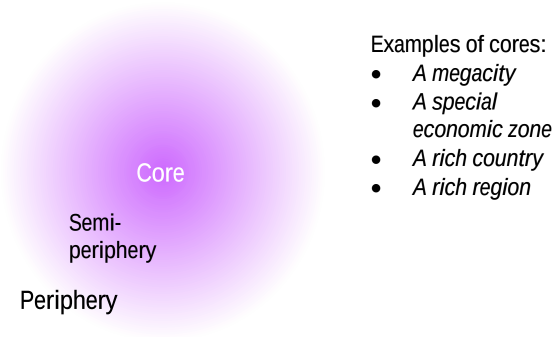
Figure 3.2f
World-systems theory



The basic needs approach

Assuming that the development will in long term diffuse wealth throughout the societies, in short term, the basic needs (nutrition, housing, health, income) of the poor should be met. This is irrespective of the political system in question, as well as whether the income and services originate from the formal or informal sectors. Statistical indices are used in development planning to fulfill minimum acceptable standards for the poorest households.

In the last two decades, the approach has been very popular, but the critical voices point to the problems of non-productive investments, and that the aid is cosmetic and very short term, not addressing the basic inequalities in the society.

Neo-classical approach

The 1980s saw a counter-revolution of the straightforward ideas of the classical economy described above. This has been largely due to practical reasons; issues such as sound money, free markets, predictable property rights, and small governments, have shown efficiency in development, especially in economic terms. The so-called Washington consensus (World Bank, International Monetary Fund, and other Bretton Woiod Institutions) has suggested the following approach:

- *Remove price controls;*
- *Apply fiscal discipline;*
- *Prioritize government expenditure in infrastructure and human development;*
- *Implement tax reforms;*
- *Execute financial liberalization;*
- *Remove foreign exchange controls*;
- *Promote foreign investments;*
- *Privatize public enterprises;*
- *Deregulate economy;*
- *Protect property rights.*

The greatest problem is institutional set-up, which is missing from this concept. It has recently been criticized strongly (Stiglitz 1998) due to negative experience of instabilities in many newly industrialized economies in SE and E Asia and in Latin America. Special attention has been paid to the need to control the short-term external cash flows by governments.

The neo-classical theory and philosophy is the cornerstone of the fashionable liberalistic economic policies that are advocated by many international organizations and donors, not least the Bretton Wood Institutions, and opposed by many NGOs, grassroot level actors etc.

New institutional economy

Recently, many basics of the neo-classical approach such as perfect markets, economic rationality, and perfect information have been challenged by new institutionalism. As the name implies, the various, important roles of institutions (*legislative*, *executive*, *juridical*, *administrative*, and *informal* ones such as culture, other informal norms, and religions, as well as *structure and character of social interests*; see North 1990) are emphasized. They are defined as the rules of the game in a society. The players are the various organizations and individuals. The institutions regulate various transactions between and among production and consumption, and their roles and set-ups are a dynamic process and flexibility should exist (Figure 3.2g).

Figure 3.2g
New institutionalism

Institutions provide the stability to the society, and to a certain extent define, why some countries develop and some do not. One basic thesis is that the informal sector should support the formal sector (Chapter 8.2).

New institutionalism has found upward notice in the analyses of transitional countries, such as former centrally planned and rapidly industrializing ones.

Human development

Although economy is an important determinant of the development of a society, it cannot be considered as the only criterion. The United Nations Development Program (UNDP 1995) lists three essential levels of *human development*:

- A long and healthy *life*.
- Ability to acquire *knowledge*.
- An access to the *resources* needed for a decent standard of living.

According to UNDP, these three determine many of the chances to human development, which is defined as a progress of *enlarging people's choices*. Such choices include social, economic, and political freedom to opportunities for being creative and productive, and for enjoying personal self-respect and human rights. Accordingly, the UNDP view to development is to enlarge all human choices, not just income.

UNDP has developed an index for human development (HDI, Human Development Index). It is a composite of life expectancy at birth, educational attainment (adult literacy, and enrollment rates to primary, secondary, and tertiary education), and income. For computational principles and details, see UNDP's Human Development Reports, which are released annually. In Chapter 4.5, the human development issue is elaborated further with a view of the study regions.

The human development paradigm has four components:

- *Productivity*. The ability for each individual to increase their productivity and participate in the process of income generation.
- *Equity*. Individuals must have access to equal opportunities.
- *Sustainability*. The future generations must as well have the access to those opportunities.
- *Empowerment.* Development is not just *for* people, but *by* them. People must participate fully in the development process.

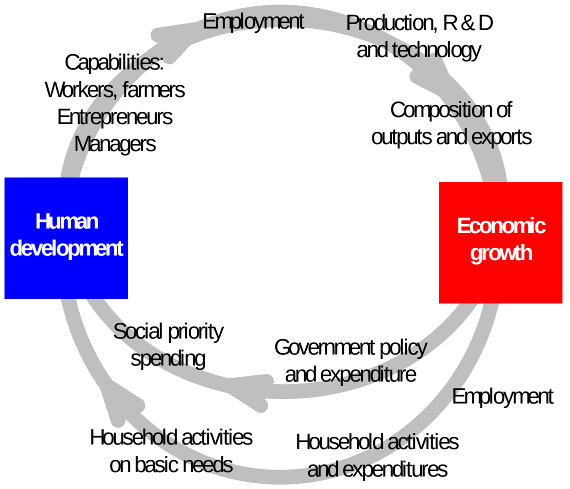
Economic development, measured as annual per capita GNI growth rate, correlates well with human development. There are many issues that are mutually supporting (Figure 3.2h). However, for a large number of countries, this relation is weak (Table 3.2b). Within the case regions, China and many SE Asian countries have shown high growth in both GDP and HDI, whereas most African study countries have witnessed slow growth in these indicators.

There are many connections between the so-called endogenous development theories from modern development economy theory (for instance, Todaro 1997) and UNDP's human development paradigm. Here, the former ones have been left beyond detailed analysis because the UNDP approach appears to be operationalized efficiently, and it has gained much use, e.g., within the UN organizations.

Table 3.2b
Human development vs. economic progress
Selected countries from UNDP's (1996) analysis of the relation between growth rates of human development index (HDI) and GDP per capita. The section Low HDI/High GDP growth was found to be a trap with a difficult access to the High HDI/High GDP growth section. The analysis included 87 countries.

HDI growth	GDP growth Low	High
High	24 countries incl. *Switzerland, France, Jamaica, Nicaragua, Sri Lanka*	14 countries incl. *Rep. of Korea, China, Hong Kong, Japan, Singapore, Malaysia, Indonesia, Thailand, Spain*
Low	42 countries incl. *Niger, Haiti, Ghana, Zimbabwe, India, Tanzania, Congo, Sudan, Rwanda*	7 countries incl. *Pakistan, Hungary, Egypt, Lesotho*

Figure 3.2h
The virtuous circle
From human development to growth and back to human development (according to UNDP 1996).


Employment
Production, R & D
and technology
Capabilities:
Workers, farmers
Entrepreneurs
Managers
Composition of
outputs and exports
Human
development
Economic
growth
Social priority
spending
Government policy
and expenditure
Employment
Household activities
on basic needs
Household activities
and expenditures