

## **Sustainable Development and International Development Cooperation**

### **No. 5**

#### ***Part 2: Development and Environment in Developing Countries***

##### **1. Modernization and Developmentalism**

Vicious cycle of poverty → Vicious cycle between poverty and environment

Ragner Nurkse (1953), *Problem of Capital Formation in Underdeveloped Countries*, Blackwell

Low Income – Low Savings – Low Investment – Low Productivity – Low Income

Gunnar Myrdal (1957), *Economic Theory and the Under-developed Regions*

→ Vicious cycle between poverty and environment → destruction of resource → uneven distribution of wealth → disparity and poor

Albert O. Hirschman (1958), *the Strategy of Economic Development*, Yale University P

Ibid. (1970), *Exit, Voice, and Royalty: Response to Decline in Firms, Organizations, States*

Resource rich case: Resource Curse, Dutch Disease

Some of main characteristics of developing society, labor surplus and lack of capital

• Clifford Geertz, C. (1963), *Agricultural Involution: the Process of Ecological Change in Indonesia*, Univ. of California Press. ⇒ agricultural involution and shared poverty

• Scott, J. C. (1976), *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*, Yale Univ. Press. ⇒ patron-client bonds

Global system or structure of international economy

• Prebisch-Singer Thesis: The terms of trade between primary products and manufactured goods tend to deteriorate over time.

• Developmentalism in developing countries in 20<sup>th</sup> century.

Development Dictatorship, Development Autocrat, Bureaucratic authoritarianism, Repressive developmentalist regime, Developmental State

President F. Marcos: Philippines 1965-1986

President Suharto: Indonesia (1965) 1968-1998

President Park Chung-hee: S. Korea 1963-1979

Prime Minister Sarit Thanarat, Thailand 1959-1963

- New Developmentalism in 21<sup>st</sup> century?  
China (1978-) and Vietnam (Doimoi: 1986-)

World Bank (1993), *East Asian Miracle: the role of government in development*

(1) neo-classical approach, (2) market friendly approach, (3) developmentalist approach

Looking specifically at the World Bank's views on government intervention, this topic can be interpreted in the following way.

The perception of the role of government in development can be divided into three categories: the neoclassical approach, the market-friendly approach, and the developmentalist approach.

Within the neoclassical approach, the book lists four roles for government: (1) maintaining macroeconomic stability, (2) preparing and maintaining a legal system that facilitates domestic and international competitiveness, (3) promoting international trade and eliminating price controls, and (4) facilitating investment in human capital. Meanwhile, the developmentalist approach, particularly that of Japan and Korea which has emphasized policies fostering targeted industries, is rejected by the World Bank. Implementation of such fostering policies requires a first-rate bureaucracy, a condition which the book feels is difficult for most developing countries to meet.

The market-friendly approach requires the government to play a bigger role than that acceptable within the neoclassical view. This approach is mainly based on the principle of competition, and it accepts selective intervention by the government which is directed toward promoting competition. This approach emphasizes three points in particular where government intervention plays a role in correcting market failures. These are: (1) coordination failure, (2) credit rationing, and (3) information-related externalities. In recent years these three have been the topics of much debate within the field of economics, but it should be noted that this approach rejects the developmentalist role of government involvement in fostering industries. Regarding coordination failure and information dissemination, the World Bank has given high marks to the role played by the Japanese deliberation council in coordinating the private and government sectors. Likewise in the area of credit rationing, the Bank has evaluated highly policies that have been carried out through contest-based competition. However the implementation of these also requires a top-notch bureaucracy, and for this reason the Bank takes a negative view about their applicability to other developing countries.

Source: Kuchiki, A. and K. Matsui (1994), Book review "The East Asian Miracle: Economic Growth and Public Policy by the World Bank", J. of Developing Economies 32(3)

## 2. Development issues: Poverty Trap and Big push

Poverty Trap and Big Push

Economic Growth / Development in developing countries

- Per Capita GNI Growth:  $YY'$ , Population Growth:  $NN'$

Population Growth: High Birth rate • High Mortality rate → High Birth rate • Low Mortality rate →

Low Birth rate • Low Mortality rate

$$G(\text{GDP}/\text{Pop}) = G(\text{GDP}) - G(\text{Pop})$$

$y_1$ : Low level equilibrium point

Poverty Trap

Low level equilibrium between poverty and underdevelopment (population growth),  
Vicious circle (cycle)

- Big Push and Trickle Down

Big Push: Economic strategy to initiate or accelerate economic growth by large scale investments.

Trickle Down: Economic Growth would automatically bring benefit to the mass.

1950s • 1960s Big push

According to the “big push” theory of economic development, publicly coordinated investment can break the underdevelopment trap by helping economies overcome deficiencies in private incentives that prevent firms from adopting modern production techniques and achieving scale economies. These scale economies, in turn, create demand spillovers, increase market size, and theoretically generate a self-sustaining growth path that allows the economy to move to a Pareto preferred Nash equilibrium where it is a mutual best response for economic actors to choose large-scale industrialization over agriculture and small-scale production. The big push literature, originated by Rosenstein-Rodan [1943, 1961], was initially motivated by the postwar reconstruction of Eastern Europe. The theory subsequently appeared to have had limited empirical application... Scholars have found few real-world examples of such an infusion of investment helping to “push” an economy to high-level industrialization equilibrium.

(<http://macromarketmusings.blogspot.com/2008/07/big-push-and-economic-development-in.html>)

The Fall and Rise of Development Economics by P. Krugman

The glory days of "high development theory" spanned about 15 years, from the seminal paper of Rosenstein Rodan (1943) to the publication of Hirschman's Strategy (1958).

Loosely, high development theory can be described as the view that development is a virtuous circle driven by external economies -- that is, that modernization breeds modernization. Some countries, according to this view, remain underdeveloped because they have failed to get this virtuous circle going, and thus remain stuck in a low level trap. Such a view implies a powerful case for government activism as a way of breaking out of this trap.

It's not that easy, of course -- just asserting that there are virtuous and vicious circles does not qualify as a theory. (Although Myrdal (1957) is essentially a tract that emphasizes the importance of "circular and cumulative causation" without -- unlike Hirschman (1958), which is often treated as a counterpart work -- providing much in the way of concrete examples of how it might arise). The distinctive features of high development theory came out of its explanation of the nature of the positive feedback that can lead to self-reinforcing growth or stagnation.

In most versions of high development theory, the self-reinforcement came from an interaction between economies of scale at the level of the individual producer and the size of the market. Crucial to this interaction was some form of economic dualism, in which "traditional" production paid lower wages and/or participated in the market less than the modern sector. The story then went something like this: modern methods of production are potentially more productive than traditional ones, but their productivity edge is large enough to compensate for the necessity of paying higher wages only if the market is large enough. But the size of the market depends on the extent to which modern techniques are

adopted, because workers in the modern sector earn higher wages and/or participate in the market economy more than traditional workers. So if modernization can be gotten started on a sufficiently large scale, it will be self-sustaining, but it is possible for an economy to get caught in a trap in which the process never gets going.

### 3. References

Sen, A. (1999), *Beyond the Crisis: Development Strategies in Asia*, Institute of Southeast Asian Studies  
Todaro, M. and S. Smith (2008), *Economic Development*, Longman

### 4. Schedule of Course Work

1. Introduction 9/27

*Part 1: History, Concept, and Theory of Sustainable Development (SD)*

2. History and concept of SD 10/6

3. Theory of SD: Carrying Capacity and MSY 10/13

4. Measuring and Indicators of SD 10/20

5. \* Students make a short report and presentation about your definition and measuring of SD 10/27

*Part 2: Development and Environment in Developing Countries*

6. Development issues: Poverty Trap and Big push 11/10

7. Economy and society of developing countries: Dual society and two sector development model 11/17

8. Development strategy: import substitution and export oriented 11/24

9. Development strategy and environment 12/1

10. \* Students make a short report and presentation about development issues in selected countries. 12/8

*Part 3: Theory and Practice of International Cooperation*

11. History and theory of international development cooperation 12/15

12. PRSP, MDGs, and Paris Declaration 12/22

13. Assessing Aid and environment 1/12

14. \* Students make a short report and presentation about aid and development in selected cases. 1/19

*Part 4: Toward a Sustainable Global Society (governance)*

15. Sustainable global society, global governance and concluding remarks 1/26

### Table 1 Population and Absolute Poverty Ratio

	1981		1984		1987		1990		1993		1996		1999		2002a	
	100M	%	100M	%												
East Asia, Pacific	8.0	57.7	5.6	38.9	4.3	28.0	4.7	29.6	4.2	24.9	2.9	16.6	2.8	15.7	2.1	11.6
S. asia	4.8	51.5	4.6	46.8	4.7	45.0	4.6	41.3	4.8	40.1	4.6	36.6	4.3	32.2	4.4	31.2
SSA	1.6	41.6	2.0	46.3	2.2	46.8	2.3	44.6	2.4	44.0	2.7	45.6	2.9	45.7	3.0	44.0
World	14.8	40.4	12.8	32.8	11.7	28.4	12.2	27.9	12.1	26.3	11.0	22.8	11.0	21.8	10.2	19.4

Source: World Development Indicators 2006.

**Table 2 Population and Population Growth Ratio**

		1960		1970		1980		1990		2000
		Population (100M)	Growth ratio (%)	Population (100M)						
East Asia, Pacific	Population (100M)	9.0	2.2	11.2	2.2	13.6	2.0	16.0	1.1	18.0
S. Asia	Population (100M)	5.6	2.0	7.1	2.0	9.0	2.0	11.1	2.0	13.5
SSA	Population (100M)	2.3	2.6	2.9	3.0	3.9	3.0	5.2	2.9	6.7
World	Population (100M)	30.2	1.9	36.7	2.0	44.2	2.0	52.4	1.1	60.7

Source: World Development Indicators database (<http://www.worldbank.org/>)

**Table 3 Sector GDP Ratio**

		1960	1970	1980	1990	2000	2005
		East Asia, Pacific	Agriculture	31.4	32.9	24.4	20.0
	Manufacture	30.5	32.5	42.5	40.3	46.0	45.0
	Services	38.1	34.6	33.0	39.8	41.4	42.0
S Asia	Agriculture	45.8	44.8	38.0	30.5	25.1	19.0
	Manufacture	17.6	19.9	23.8	26.6	26.2	27.0
	Services	36.6	35.3	38.2	42.8	48.8	54.0
SSA	Agriculture	27.1	21.0	17.6	18.1	17.0	17.0
	Manufacture	28.2	29.3	38.2	34.2	30.0	32.0
	Services	45.4	49.7	44.2	48.0	53.1	51.0

**Table 4 Export Structure of Kenya (Unit : 1,000KSh)**

		1998	1999	2000	2001	2002	2003	2004	2005
		Food etc.	65,135,197	64,796,860	69,285,294	62,329,476	71,259,247	72,504,797	78,477,958
	%	56.9%	56.4%	57.9%	51.3%	54.2%	53.0%	49.3%	48.2%
Oil etc.	22,468,120	22,295,780	23,045,298	29,117,535	243,981,240	24,846,530	41,468,735	32,858,114	
	%	19.6%	19.4%	19.2%	24.0%	185.7%	18.2%	26.1%	17.0%
Manufactures	26,510,200	27,261,100	26,882,593	29,012,082	34,930,085	38,299,808	49,417,428	51,316,303	
	%	23.2%	23.7%	22.4%	23.9%	26.6%	28.0%	31.1%	26.5%
Others	331,800	487,940	552,689	975,355	823,693	1,059,360	416,016	613,295	
	%	0.29%	0.42%	0.46%	0.80%	0.63%	0.77%	0.26%	0.32%
Total	114,445,317	114,841,680	119,763,714	121,433,882	131,394,055	136,708,767	159,048,102	193,692,436	

Source: CBS • Kenya [2006] *Statistical Abstract 2006*.