

3 | Challenges and Opportunities for Better Environment

3.1 Key problems

Generally speaking, Asia is under rapid transition from agriculture societies into industrial economies, though some countries like Japan are already among developed ones (Figure 3.1). Such transitions, featured by urbanization and industrialization, have continuously shaped regional environment for 20-30 years, and will likely last for another half century or so. It is unrealistic to expect major changes of development modes and environment impacts in the near future, and therefore, Asia environment will likely continue to get worse in coming years, despite of improvements in some areas. The economic standard of most Asia developing countries have not yet reached the turning points of so-called Environmental Kuznets Curve (See Box 3.1), which means that they will have to struggle for a difficult balance between economic growth and environmental quality for a long period.

Much of the environmental degradation in Asia occurs as a result of market failures, inefficiency in production and use of energy and resources, lack of ability or cooperation of local governments, lack of integrated planning, and weak environmental regulatory agencies.

Weak environmental regulatory agencies also have a large part to play for environmental degradation in this region. On one hand, environmental protection in the region is regarded as a policy goal to be pursued exclusively within environmental ministries or equivalent agencies. Few countries effectively mobilize other government agencies to this challenging task. On the other hand, although there are so many environmental regulations, they are not fully implemented in many cases. Environmental ministries or equivalent agencies in the region are often lack of real power and necessary facilities to design, implement, monitor, inspect and enforce new effective

environmental polices and regulations.

Box 3.1 The Environmental Kuznets Curve

Kuznets predicted that the changing relationship between per capita income and income inequality is an inverted-U-shaped curve. As per capita income increases, income inequality also increases at first and then starts declining after a turning point (TP). In other words, the distribution of income becomes more unequal in early stage of income growth and then the distribution moves towards greater equality as economic growth continues.

There is evidence that the level of environmental degradation and per capita income follows the same inverted-U-shaped relationship as does income inequality and per capita income in the original Kuznets Curve. Now, Kuznets Curve has become a vehicle for describing the relationship between measured levels of environmental quality (for example, concentration of SO₂) and per capita income. This inverted-U-shaped relationship between economic growth and measured pollution indicators (environmental quality) is known as the EKC.

In the history of developed countries, the turning points ranged from 5,000-15,000 USD. The Environmental Kuznets Curve is now widely accepted among economic experts, environmental scientists, and even governments.

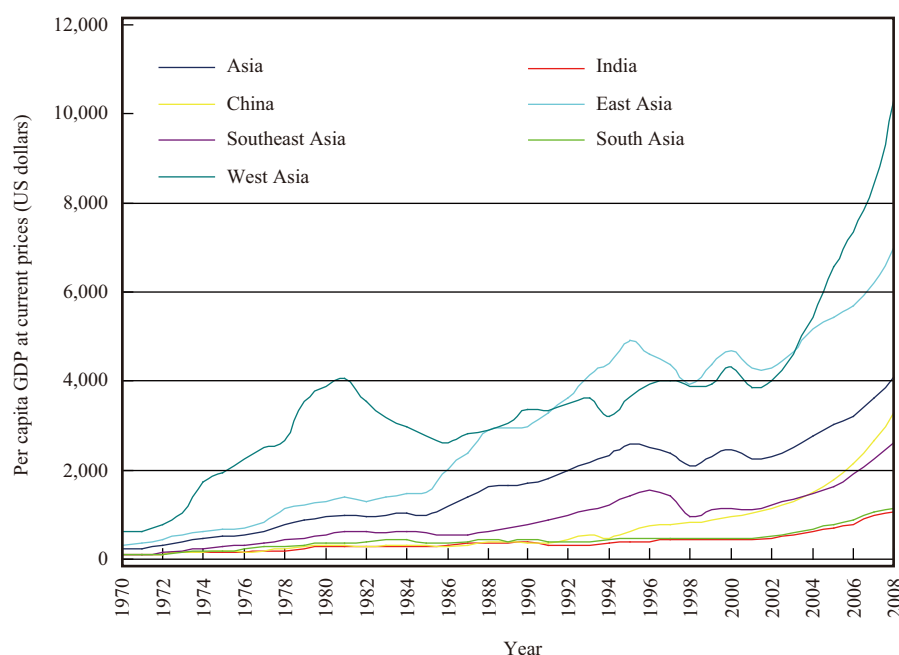


Figure 3.1 Decadal trends of per capita GDP at current prices among Asia sub-regions from 1970 to 2008. Designed by Yaozhi Zhou based on UN data (Source: UN, 2009)

Asia has been heavily dependent on dirty-burning coal to fuel its rapidly growing economy. This coal dominance in the energy mix in developing Asia