Building a Resource(s)-saving and Environment-friendly Society for the Sustainable Development of China

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Abstract: 2010 will be a transitional year for China’s economic development mode. The paper interprets the concepts of recourses-saving and environment-friendly society, makes comparison between the scope of the two, and then takes several cases which are observed and experienced by author to illustrate how to further the energy-saving and emission-reducing work, push the construction of the recourses-saving and environmentally friendly society to make new contributions on sustainable development.

Keywords: recourses-saving and environmentally friendly (or environment-friendly) society, transition on economic development mode, energy-saving and emission-reducing, social responsibility, sustainable development

1. Introduction

The China’s social-economic development is hard to continue on the basis of mass recourses consumption. Affected by the financial crisis, although China’s economy showed the V type and fulfilled the set target in 2009, how to maintain the growth? To change the economic development pattern is the way out, while adjust the current economic structure, deepen the work of energy-saving and emission-reducing and press the construction of recourses-saving and environmentally-friendly society is the due meaning of the former, and also is the deepening and new contribution to sustainable development.

The concept of sustainable development has been recognized widely, scholars of home and abroad and governments have deepened the comprehension continually. Tao Zaipu, a scholar of Austria analyzes the concept from the view of weight and area and explains the implications of dematerialization and weightless economy in 21 century. Lester R·Brown advocates Plan B in his book entitled Rescuing a Planet under Stress and a Civilization in Trouble to replace the unsustainable development mode. Recently the popularity of concepts of circular economy, eco- economy and low-carbon economy is a good case in point to demonstrate the deepening comprehensions of sustainable development. Under such circumstances, China proposes the construction of recourses-saving and environmentally-friendly society, set concrete target for energy-saving and emission-reducing to realize the sustainable pattern of economic development. There are no universal explanations for recourses-saving and environmentally-friendly society: the former is initially proposed in China while the latter comes from outside China. As to the environmentally friendly society, it is systematically developed in the course of resolving the international environmental problems. The term “energy-saving and emission-reducing” is from the 11th five-year plan outline of China’s national economy and social development. At present, preventing the global warming up and reducing the emissions of greenhouse gases has become the focus of all parties, China takes positive measures to abate and adapt to the adverse impact climate change on the principle of common but deferent responsibilities. That is, by 2020, the CO\textsubscript{2} emissions of unit GDP will reduce by 40-45 percent compared with 2005. Anyway, it is no doubt that implementing energy-saving and emission-reducing, constructing recourses-saving and environmentally friendly society and developing the low-carbon economy is the new contribution to sustainable development.

2. Arguments, favoring the concepts of recourses-saving and environmentally friendly society

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2.1 Recourses-saving society
Recourses-saving society is the rational reflection outcome of traditionally extensive economic growth pattern. It means that the social-economic development should be built on the basis of resources and energy-saving, comprehensive measures must be taken to minimize the resources and energy consumption while maximize the economic and social benefits in every aspect of social production and life. To be specific, the society of recourses-saving can be demonstrated in three aspects.

2.1.1 Recourses-saving society from the viewpoint of enterprise
From the viewpoint of enterprise, the resources-saving society demands enterprise to take the way of technology innovation or transformation; in the meantime, to improve managerial level to keep the resources and energy consumption of unit production to the minimum as much as possible.

2.1.2 Recourses-saving society from regional viewpoint
From regional viewpoint, the resources-saving society demands adjust industrial structures, including the first, second and third industries and its inner proportions so to reduce the dependency on resources and energy. “In some developed countries, it is by the transition of economic development mode and adjusting industrial structures that they achieve great economic and environmental benefits with low resources consumption.”

2.1.3 Recourses-saving society from viewpoint of the whole society
From the viewpoint of the whole society, the resources-saving society demands a scientific, rational, moderate and civilized consumption concept so as to restrain and decrease resources waste and environmental damage from the source.

2.1.4 Features of recourses-saving society
The essential characteristic of recourses-saving society can be summarized as economical and intensive use of resources and energy, controlling the quantity of pollutant and wastes and obtaining economic-social and ecological sustainable development. The concept of recourses-saving society reflects the fundamental change of human development concept from traditionally extensive type to the one of modern scientific and intensive.

2.2 Environmentally friendly society
The concept of environmentally friendly society comes initially from outside China. In 1992, in the agenda of 21 century passed in the conference of UN environment and development hold in Rio de Janeiro, the definition of “Environmentally Sound” was mentioned over 200 times, and the definition of “Environmentally Friendly” was mentioned officially at the same time. Then, the environmentally friendly technology and product are promoted. In the middle and late of 1990s, the international society proposed to utilize land and manage the watershed in an environmentally friendly way, construct environmentally friendly city, develop environmentally friendly architecture. In Johannesburg Plan of Implementation passed in the world sustainable development summit in 2002, the definitions of environmentally friendly material, product and service were mentioned many times. The Japanese government put forward in Environmental Protection White Paper to build environmentally friendly society in 2004. And China put forward the concept on Mar 12th in 2005 for the first time on Work Forum of China Population Resources and Environment. It is also in this forum that the target for building recourses-saving and environmentally friendly society was brought forward. From Oct 8th to 11th of the same year in the Fifth Plenum of the Sixteenth of Chinese Communist Party, the target for building environmentally friendly society was proposed officially. The society of environmentally friendly requests that both production and life be done in an environmentally sound way, that is, economic growth model should be pressed in an environmentally friendly way. The definition of environmentally friendly society can also be interpreted in three perspectives.

2.2.1 Environmentally friendly society from the perspective of enterprise
From the viewpoint of enterprise, environmentally friendly society requires the ecological design on product and facilities, implementation of cleaner production, recycling use of resources and wastes so as to reduce pollutant discharge as much as possible.

2.2.2 Environmentally friendly society from regional perspective
From regional viewpoint, the environmentally friendly society requires network construction on circular
2.2.3 Environmentally friendly society from perspective of the whole society
From the viewpoint of the whole society, the environmentally friendly society requires all society members to build an environment moral and cultural system, to protect ecology. This can be assumed as the highest level of environmentally friendly society.

The recourses-saving and environmentally friendly society actually is an organic body, recourses-saving is only part of environmentally friendly, in fact, it is the base of the latter, whereas the latter is more general and can cover the meaning of the former. Only by cutting the input of all kinds of resources from the source and improving unit resources efficiency can wastes be decreased. In my view, it can be compared to controlling one’s weight; the most effective way is to be on a diet. Nevertheless, this is not enough, for resources-saving alone can not guarantee environmentally friendly, a series of green technology is still necessary.

3. Practice on recourses-saving and environmentally friendly society construction and energy-saving and emission-reducing in China

The term “energy-saving and emission-reducing” is from the 11th five-year plan outline of China’s national economy and social development in which the target for cutting energy consumption of unit GDP by 20 percent and total emission of main pollutant by 10 percent is stipulated. It is the necessary option in building recourses-saving and environmentally friendly society, and also the only way to adjust economic structure and transform the development mode. There are two kinds of definitions for the term. Broadly speaking, it refers to economical use of material resources and energy resources and the low emissions of both wastes and environmental hazardous materials (including waste water, waste gas, solid wastes and noise); in a narrow sense, it only refers to saving energy resources and cutting emissions of environmental hazardous materials.

To obtain the construction goal of recourses-saving and environmentally friendly society, implementing the work of energy-saving and emission-reducing is of vital importance, which needs effective cooperation among government, enterprise and general public. It is indispensable for government to intensify the supervision responsibilities, enterprise to shoulder social responsibilities and general public to participate actively. Currently, there is still a long way to cover in terms of implementing the work of energy-saving and emission-reducing and building recourses-saving and environmentally friendly society, to illustrate the existing difficulties, several cases the author observed or experienced are listed below.

3.1 Brief analysis on implementation results of the Ban on Free Plastic Bags in China
On Jun 1st, 2008, the production, sale and use of plastic shopping bags 0.025 millimeters thick or thinner will be banned in China, and retailers will be prohibited from providing customers with free plastic bags, which is called by the general public the ban on free plastic bags (or plastic limit order). Since the implementation of the policy, the use of plastic bags has decreased dramatically, according to statistics, the ban can help reduce by roughly half million tons of plastics per year across the whole country, which equals to save 2.4-3 million tons of petroleum, and decrease 7.2-9 million tons of CO2 emissions. Meanwhile, the public awareness of environmental protection has also been enhanced. Nevertheless, there still leaves much to be desired, for instance, markets are the most difficult place to carry out the policy. The retailers still provide consumers free Ultra-thin plastic bags which are the body of the “white pollution”. In addition, the government supervision should be further enhanced. In effect, the ban can be viewed as a benchmark by which the social responsibilities of parties concerned be strengthened, the speed of building up recourses-saving and environmentally friendly society be accelerated. These are no easy tasks, for they test not only the government’s managerial wisdom but the corporate social responsibilities and public awareness of environment protection.

3.2 Appliances trade-in policy
This policy is good for resources recovery and reuse, but needs further perfection. Currently, there are six steps to follow:
Step 1: customer submits online application or calls in advance and waits at home for recovery; this process needs one day or so.
Step 2: salesman reclaims and cashes old appliances, issues voucher, and half day is needed.
Step 3: customer chooses shopping mall or supermarket to select new appliances
Step 4: customer purchases new appliances with voucher, fills in application form, enjoys 10 percent government subsidy, this process needs one day.
Step 5: spending at least one day waiting for goods sent by shopping mall.
Step 6: contacting manufacturer staff to install appliances, this process needs at least one day.
It is clear that the customer or user need to contact at least three departments, and spends roughly four and half days to accomplish the deal. Therefore, the trade-in policy requires shortening the service time and simplifying relevant procedures.

3.3 Cases on energy-saving and emission-reducing and social responsibility.

3.3.1 Energy-saving and emission-reducing project calls for energy-saving buildings
Here taking an example of real estate enterprise. At present, almost all newly residential buildings are high-rise flats. According to the author’s observation, in Qingdao, the larger the house, the more reasonable the structure, almost all rooms make full use of nature light, which is conducive to saving energy and is more sanitary as well. By contrast, the smaller the house, the poorer the design of the structure, the toilet without window in particular, in this case, even if in day time, we still requires turning on light when using which is against the principles of saving energy and sanitary. To the author’s view, this should not be a problem as long as the enterprise designs carefully.

3.3.2 Energy-saving and emission-reducing project calls for energy-saving appliances and social responsibilities
Here is another example which is experienced by the author. I bought a LED-displayed refrigerator on Feb. 11, 2007, which can display the temperatures of storage (fresh layer of refrigerator) and freezer. It was made by Haier, a famous Chinese appliances manufacturer. The solenoid valve was broken in less than three years, and showed error temperature of storage. Actually the refrigerator becomes an electric freezer for both storage and freezer are in the same temperature. Because the refrigerator is still in the three-year warranty period, the factory replaces broken part with free new one early in February this year and extend one-year warranty period accordingly. Unfortunately, the fresh layer of refrigerator still forms mild frog, which cannot help making me worry about the quality of this kind of product. In addition, I was told by Haier’s maintenance staff that this type of product does have high repair rate, which greatly wastes resources and energy. In my eyes, it is difficult to use ten years as designed. It is coincident that my neighbor bought a kind of mechanical refrigerator of Haier at the same period, although not as fashionable as mine, it is more practical. In fact, for most consumers, it is not that important to display the temperatures, in most cases, it is not necessary for users to change temperatures frequently. In this sense, the LED displayed function can do without it, for the solenoid valve might be used more efficient somewhere else. I drew a conclusion from this matter, namely, enterprise should be more responsible for consumers and environment rather than speculating concept only. If an enterprise wants to be a responsible and longevity enterprise, he has the duties to tell his consumers, as an information asymmetry party, the relevant functions, advantages and disadvantages of his product, so that his consumer can make decision under the premise of relatively informative. From the consumer’s viewpoint, it is wise to hold rational consumption principle; anyway, product quality is more important than fashion. Only in this way, can the goal of saving resources and energy as well as environmentally friendly be fulfilled gradually by enterprises and consumers.

4. Conclusion

The recourses-saving and environmentally friendly society of China is the deepening of the concept of sustainable development, and is also the harmony and win-win situation among economy, society and
nature. The recourses-saving and environmentally friendly society is an organic body, recourses-saving is only part of environmentally friendly, and actually the latter can cover the range of the former. Implementing the energy-saving and emission-reducing project can accelerate the speed of building up recourses-saving and environmentally friendly society. The practice of social responsibilities must be carried out effectively, for it is conducive to fulfill the goal mentioned above.

References