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# Practical Significance of Marxist Natural Force Resources Theory

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**Abstract** Marxist natural force resources theory is an indispensable part of Marx's economic theory. In view of actual situation of China, Grasping the scientific connotation of Marxist natural force resources theory is of great theoretical value and practical significance to sticking to the strategy of sustainable development and promoting the harmonious development of men and nature.

**Key words** Marx, Natural force resources, Practical significance

## 1 Introduction

The development of human society from agricultural civilization to industrial civilization is the progress of history of human society. However, behind this historical progress of human society, it is the heavy price human beings have paid for it. The most typical one is the dramatic deterioration of the natural ecological environment. Marxist natural force resources theory is an important theoretical resource reflecting the current crisis of natural ecological environment. Reviewing Marxist natural force resources theory is of great guiding significance for building ecological civilization and developing harmonious society.

## 2 Classic statement of Marxist natural force resources theory

**2.1 Natural force resource is a productive force** Marx stated that it is not only a matter of the social, but also the natural, productivity of labor which depends on the natural conditions of labor<sup>[1]</sup>. According to this statement, labor productivity includes two aspects: (i) the productivity generated from the labor force, and (ii) the productivity generated from the natural factors. In analyzing the productivity of capitalism, Marx also pointed out: "the natural productivity of labor, that is, the productivity found in the inorganic world of labor, is the same as the productivity of capital in the labor productivity."<sup>[2]</sup> In the analysis of ground rent, Marx pointed out the surplus-profit which arises from the employment of this waterfall is not due to capital, but to the utilization of a natural force which can be monopolized, and has been monopolized, by capital.<sup>[1]</sup> This productivity and the utilization of natural force resources are combined together. The degree of utilization depends on the level of development of science and technology and the degree of application in the production process. Evidently, natural force resources are the basis and premise for generating such productivity, and science and technology are conditions for generating such natural productive forces. Undermining this natural condition or failing to make effective use of this natural condition will destroy this natural productive force or make it dis-

appear or fail to form a realistic productive force.

**2.2 Natural force resource is a natural factor that costs nothing** In the opinion of Marx, "apart from the natural substances, it is possible to incorporate in the productive process natural forces, which do not cost anything, to act as agents with more or less heightened effect. The degree of their effectiveness depends on methods and scientific developments which cost the capitalist nothing."<sup>[4]</sup> The productively exploited nature-given materials, the soil, the seas, ores, forests, etc., which do not constitute elements of capital-value, are more intensively or extensively exploited with a greater exertion of the same amount of labor-power, without an increased advance of money-capital. The real elements of productive capital are thus multiplied without requiring an additional money-capital. Marx also described the natural force resources are free through comparing the waterfall and coal. Marx said: "the waterfall – which is found readily available in Nature and is not itself a product of labor like the coal which transforms water into steam. The coal, therefore, has value, must be paid for by an equivalent, and has a cost. The waterfall is a natural production agent in the production of which no labor enters."<sup>[1]</sup> The reason why natural force resources can be utilized at no cost is that natural force resources are not the products of labor and of no value. Natural force resource has no value but has the use value, and its use value is to be able to participate in the production process, and provide services for the generation of the use value.

**2.3 The scarcity and limit of natural force resources** Marx stated that "It is by no means within the power of capital to call into existence this natural premise for a greater productivity of labor in the same manner as any capital may transform water into steam. It is found only locally in Nature and, wherever it does not exist, it cannot be established by a definite investment of capital."<sup>[1]</sup> In the period of underdevelopment of human society, the quantity and degree of utilization of natural force resources are low, and the potential resources of natural forces that are not utilized are relatively huge. It seems difficult for people to feel the scarcity and limit of natural force resources. On the contrary, people mistakenly believe that natural force resources are inexhaustible natural treasure. However, with the development of economic activities, the number and types of social needs are gradually ex-

panding. People have increasingly expanded the breadth and depth of the utilization of natural force resources, which constantly exposes the scarcity and limit of resources of natural forces. There are many resources of natural forces in nature, especially those resources that are low in stock and suitable for people, and those that are particularly large in stock but will be depleted to a certain extent by human use. Since a considerable part of the natural resources are not renewable, people have to invest more labor and capital to conduct deep mining, resulting in increased mining costs. Therefore, the scarcity and limit of natural force resources have a great impact on the economic development.

**2.4 Protection of natural force resources** Marx pointed out: "after a long and usually bitter experience, through the comparison and study of historical materials, we have gradually learned to recognize the indirect and far-reaching social effects of our productive activities, and it is therefore possible for us to control and regulate these effects."<sup>[3]</sup> In history, there have been numerous events about the reckless use of resources of natural forces and retaliation of nature. Therefore, it is required to consider the long-term interest in utilizing resources of natural forces and take practical measures to prevent the serious damage to the resources of natural forces. Marx also pointed out: "certain commodities can only be consumed within certain limits, for example, only a certain amount of cereal can be eaten, etc. Therefore, the use of the product as a value of itself has some limitations, namely, the restriction on the need of the product, but this restriction is not now measured by the producers' demands but by the total demands of the exchangers. The product will not have the use value when the specific use value is not needed."<sup>[5]</sup> In other words, production should not only meet the needs but also adapt to the needs. If it exceeds the required value, the excess part of the value of use can not be realized, and resources of natural force will be wasted.

### 3 Problems in the utilization of natural force resources in China

**3.1 The restriction of natural force resources on the scale and speed of economic development** The economic development of any one country needs the resources of natural forces, and the resources of natural force play an irreplaceable role in the economic development. In countries with high abundance of natural force resources, the natural force resources needed in the economic development are sufficient, and the investment cost is low, so the economic development scale is large and speed is high. Conversely, in countries with high abundance of natural force resources, the natural force resources needed in the economic development are scarce and the investment cost is high, so the economic development scale is small and speed is low. China is a country with a serious shortage of per capita natural force resources and a very limited environmental capacity. The per capita natural force resources are low, the spatial distribution of natural force resources is unbalanced, and the quality of natural force resources is relatively poor. In addition to excessive use and waste of natural

force resources, there is a tremendous pressure on the development of the productivity. Therefore, the use of natural force resources is not without limits. This objectively requires that human beings, when developing the productive forces, must fully consider the sustainability of natural force resources and resolutely overcome those limits of natural force resources, excessive exploitation and abuse of resources of natural force, accordingly the depletion of natural force resources will affect the social and economic development.

**3.2 Long-term impact of the "resource economy" development model** After the liberation of the entire country, governments have been devoted to the national production development and economic construction in line with the backward situation of China, in order to improve the material productivity in a short period of time. However, due to the constraints of capital and technology and other factors, they have reluctantly selected the "resource economy" development model. This model takes the growth of material productivity as the leading goal and expands the economy scale by relying solely on the high input and high consumption of elements of natural force resources. As a result, it leads to the sharp reduction of natural force resources and the cumulative deterioration of ecological environment. The reasons for selecting this model are as follows. (i) The limitation of the international environment. it is impossible to obtain capital and technology from the outside while the internal does not have the capital and technical conditions. As a result, there is no alternative but to select this development model. (ii) Judging from the history of industrialized countries, no country should always accumulate capital and technology at the early stage of industrialization. This accumulation started from the utilization of resources of natural forces, which is also the inevitable law of international industrialization. (iii) The investment cost of this model is relatively low. As long as there is a substantial increase in labor factors, it is able to obtain certain economic benefits.

**3.3 Chaotic management system and scope** Governments at all levels in China have a set of administrative management agencies for the management of natural force resources. These administrative agencies are intertwined with the administrative agencies of other departments, and their management functions are also intertwined. In other words, to make natural force resources play an independent role, there will be various constraints and influences. The central government's resources of natural resources have contradictions with local government. Now, the contradictions are particularly prominent. In addition, there are also many contradictions between local governments, between regions, between sectors and enterprises of different nature on the natural force resources. The above contradictions will inevitably lead to competition among various stakeholders for a favorable site, resulting in fierce competition between natural force resources with a high abundance. When such competition evolves to a certain degree, it will go beyond the scope of the economy, and even resort to various non-economic means, which will lead to chaos in the exploita-

tion of natural resources, aggravating the disorder of the exploitation of natural force resources.

### 3.4 The legal system of natural force resources is not perfect

Since the liberation, China has started to formulate laws and regulations on natural force resources. So far, China has a complete set of relatively complete laws and regulations on natural force resources. This system has played a very important role in the exploitation and utilization of natural force resources. However, after the reform and opening up, China's natural force resources have undergone tremendous changes. (i) Since the reform and opening up, China has established a development strategy centered on economic construction and greatly promoted the large-scale economic development, which greatly promoted the large-scale development, while natural force resources are foundation and front commander of large scale economic development. In such situation, the investment and development of natural force resources become very vigorous. (ii) Before the reform and opening up, the exploitation rights of natural force resources in China were strictly controlled by the state-owned enterprises. After the reform and opening up, the state mining policies were adjusted. Enterprises of different nature, such as collective, private-owned and individual enterprises, could enter the exploitation of natural force resources. Then, the exploitation of natural force resources suddenly fell into chaos. Under such circumstances, the original legal system has become unable to explain the new contradictions and problems, and the introduction of the new regulatory system has been characterized by lagging characteristics, resulting in a "vacuum zone" of regulations.

## 4 Recommendations for sustainable utilization of natural force resources in China

### 4.1 Strictly controlling the rate of consumption of natural force resources

According to the rank of natural force resources, China's per capita natural force resources, self-sufficiency rate of basic natural force resources, reserve of strategic natural resources are the lowest in the world. Therefore, it is required to take following measures. (i) Implementing the crisis awareness of education of natural force resources. To bring the education on the crisis awareness of natural force resources into the part of national education, we should inform the people of the reserves and the usage of China's natural resources, so that everyone knows that natural resources will eventually come to an end. Once used it the end of this period, human beings will be unable to avoid the catastrophe of natural force resources. (ii) Providing education of ecological environmental awareness. Ecological environment is an essential condition for human survival, and excessive utilization of natural force resources will seriously undermine the ecological environment. Reducing the consumption of natural force resources is to protect the ecological environment and protect human survival conditions. (iii) Accelerating the implementation of digital control of consumption of natural resources. The total amount of natural force resources required can be calculated from the economic develop-

ment plan, and then this total amount can be quantified in the specific projects of production and living, and even the amount of natural force resources required by each person can be quantified, and related management can be adopted, and the consumption of natural force resources should be monitored by competent authorities.

### 4.2 Getting rid of the shackles of resource economy development model

Due to historical and realistic factors, people can not get rid of the mistaken idea of the resource economy development model and can not walk out of the shackles of resource economy development model. Since reform and opening up, under the guidance of Deng Xiaoping's theory that science and technology is the primary productive force, our people have vigorously carried out scientific researches and have greatly enhanced China's technological level and status. Although the development model of a complete "technological economy" has yet to be improved, it is inevitable that it advocates the development model of development ideas, and development strategy of the "technological economy". And technological economy is feasible. The selection of a "technological economy" development model is a great event in the history of modern China's economy. It is a negation of the traditional economic development model of China and a qualitative leap forward and a major turning point in China's economy. It is this development model that will push China's economy to a higher level and a higher stage, and its impact will be far-reaching. The "technological economy" model mainly emphasizes the basic position and leading role of technology in economic activities, weakens the position and role of natural force resources in economic activities, and greatly reduces the amount of natural force resources invested in economic activities, which can greatly save natural force resources in a greater range.

### 4.3 Establishing an independent management system for natural force resources

At present, it is recommended to establish an independent management system for natural force resources, so that management functions can function independently without interference. This is an institutional measure to ensure the sustainable use of natural force resources. This management system should have the following characteristics. (i) The organization is a subsidiary of the State Council and is directly under the leadership of the State Council and is directly responsible to the State Council. (ii) The organization is an independent organization and has no relationship with other government departments. (iii) The organization is authoritative and able to independently enforce the law and handle cases independently. In addition, it is recommended that the exploitation right and management right of natural force resources are possessed by central government and state-owned enterprises. On the one hand, central government and local government implement the work, leading to the chaotic situation of the all subjects of ownership, and making the natural force resources of China being subject to unprecedented predatory exploitation. China is a county with weak natural force resources and can not endure such ups and downs. On the other hand, this cha-

otic situation has also led to serious collusion between government officials and businessmen and polarization between the rich and the poor, leading to more prominent social conflicts. Furthermore, we should firmly oppose the fact that local governments at all levels set more government gates, set up separate regulations, and implement another set.

**4.4 Establishing and improving the legal system of natural force resources** Since the reform and opening up, China's economic activities have undergone tremendous changes. New things, new problems and new contradictions in the field of natural resources have emerged in an endless stream. Those changes have imposed higher requirements on the construction of legal system for China's natural force resources. (i) Some provisions of the original legal system for natural force resources have lost their foundation of existence and should be abolished. (ii) Although some provisions of the original legal system for natural force resources can still be used, the corresponding amendments should be made according to the actual situation. (iii) It is recommended to add new legal provisions based on new things, new problems and new contradictions in the field of natural force resources. (iv) It is recommended to limit exploitation and use of natural force resources, extend the life span of natural force resources, and restore and maintain the balance of natural ecosystems. (v) It is

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the overall goal of building a moderately prosperous society in an all-round way, to provide all-round protection for the relocation of poverty alleviation. In addition, it is recommended to make innovation in thinking and scientific management, to speed up the advance of projects. Also, it is recommended to implement unified standard and construction, unified plan and design, entrust qualified investors and construction organizations to make unified construction, actively guide and encourage social funds to participate in the project implementation, and make effort to increase the fund integration, to ensure the simultaneous implementation and advance of construction of resettlement sites for linkage projects and relocation projects.

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recommended to implement the asset management of natural force resources and raise the exploitation tax, fuel tax and property tax of natural force resources, so as to realize the legalization and standardization of ecological compensation. (vi) It is recommended to establish a strict punishment system. Economic entities that violate laws and regulations on natural force resources in a serious manner must make up for the economic losses they have caused. Finally, it is required to strengthen the management, regulation and supervision of central government over the natural force resources.

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