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Main Publications:

- 1、Introductory Theory on Ecological Productivity
- 2、Characteristics of the Development of Ecological Productivity

The structure and function of ecological productivity

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Abstract: Analyzing the structure and function of ecological productivity is very necessary for us to better understand the significance of developing ecological productivity, and to identify the contacts and distinctions between ecological productivity and industrial civilization productivity, and to master the ecological features and regulations of the ecological productivity development, and to speed up the development of ecological productivity. The article investigates the productivity from the three-dimensional structure firstly and analyses different understanding of productivity according to the tropism of the different civilizations and then points out the links and differences between ecological productivity and productivity of industrial civilization, warning us not to regard developed productivity as equivalent to the advanced productivity, indicating that ecological productivity is an advanced productivity; finally links and differences between ecological productivity and productivity of industrial civilization, and links and differences between ecological productivity and green productivity are discussed.

Key words: ecological productivity industrial civilization productivity green productivity advanced productivity structure and function

Analyzing the structure and function of ecological productivity is very necessary for us to better understand the significance of developing ecological productivity, and to identify the contacts and distinctions between ecological productivity and industrial civilization productivity, and to master the ecological features and regulations of the ecological productivity development, and to speed up the development of ecological productivity.

Productivity is a three-dimensional structure, and should be inspected from the three dimensions, rather than analyzed only from linear part or certain areas.

1. Investigation productivity from the three-dimensional structure

1.1 level dimension (also known as the state dimension)

It refers to the level of productivity and shows what kind of a position it is in, whether in the position of leading and forefront, or in the middle or even in the unenlightened state. Level dimension performs especially in science and technology, production tools, and so on.

Whether science and technology are developed or not, and production tools are advanced or not, are the most important benchmark dimensions which measure the level dimension of productivity. There are developed science and technology and advanced production tools in the developed countries, so their level of productivity is in the leading or forward position.

At present, our country has made an amazing progress in the aspects of industrialization, obtained considerable development in science and technology, and kept pace with the level of world development in certain areas such as biological engineering technology, space and aviation technology, new materials and new energy technology, nanotechnology research and so on, some of which are even in the leading or advanced level. It can be said that the level dimension of our country's productivity has a big leap.

Level dimension is a state feature, and an important sign, but not the only sign, to show whether the productivity is advanced or not.

1.2 Power dimension (also known as process dimension)

It refers to the degree of force and the size of power that productivity acts on the complex of nature-economy-society. Power dimension shows the process that productivity makes. Advanced science and technology and advanced production tools are not necessarily proportional to their power and function that act on the complex for there is an issue about the management of productivity (including the model of economic development),

If the idea and the technique of the management are more advanced and can inosculate with the actual situation better, then the forces and power that advanced science and technology and advanced production tools act on the complex will be stronger and higher. On the contrary, if the management is improper, the leading technology and advanced production tools can not bring their advantages into play, and their power and efficiency will still be in a low level. In some industries, our country's productivity level dimension is not low (some of them even higher), but, because of mismanagement, irrational industrial structure and developing mode, and other factors, the advantages of science and technology and production tools are difficult to develop into the advantages of complex's development, and also difficult to achieve relatively high production efficiency, so the functions to the complex performed by them are still relatively weak. In the 1940s and 1950s, U.S. Management of Jurists, doctor E.Deming invented and created a new management theory and management technology, known as Deming Management, which was very helpful for Japan, the United States, Europe, Canada, New Zealand and other countries to enhance their productivity and economic development.

Deming Management is full of new management concept that includes the following: the corporation should not be pegged only to make money, but should develop it as an enterprise, and its goal is genuine respect for the interests and personality of consumers to help people live better. Therefore, the corporations need to make it center of management to improve the quality of products and services. He tells the people of the world, when the

quality of product or service continuously upgrades, surely the productivity and profitability will also increase. This is a new philosophy of management.

In order to upgrade the quality of products and services continuously, he creates a process management technical system to replace the traditional terminal management. He believes that terminal management only makes quality inspection in the final stage of the production process, Once the quality problem is found, it needs to rework, and will bring a great waste of materials and time, and will increase the cost greatly, and what's more, such inspection is also difficult to achieve 100 percent quality clearance. So Deming stresses that quality comes not from the testing, but from the process of improvement. He points that course progressing includes the selection of material merchants and raw materials, the strategy of purchase, the formal training of staff, shaping a new image of leadership, dispelling "mentality fear" of the staff, eliminating the obstacles between sections, spurning precept and constant improvement of after service. Deming's contribution makes him father of modern management and famous still now.

In the earlier, Deming Management was not thought much of in the USA, but was introduced in Japan, making Japan's products good quality and low cost in the 1950s and 1960s, and with the help of Deming Management, Japan has created many international brands, and its economy has developed rapidly. Deming received the highest honor of meritorious service awards in Japan, and known as national treasures by the Japanese.

In sharp contrast, the United States followed the traditional method of management at that time, so the quality of their products lagged behind Japan, and some products were even inferior but its costs were still high, and could not defeat Japan on the international market repeatedly, which was also the important reason why economy was not prosperity at that time in the United States.

The theory and technology of Deming management contains a number of factors of green harmonious management, which can be described as the basis of the new concepts and new technology of the green management emerging in the modern world. Green management is to study and follow the rule of the unity of competition and harmony between natural ecosystems and the ecological system of society, and follow the rule of the unity of product quality, after-sales service and efficiency. Bring ecological harmony, people harmony and mentality harmony into effect in the process of management, and promote the green harmonious management of trinity of nature, society and personality, which is an important component of the ecological productivity. We believe, with the development and spread of concept and technology on green management, it will appear a new managing superiority on the basis of Deming Management, thereby promoting ecological productivity into a new step. Our country's level of production management is in a relatively backward position as a whole, so we should take the opportunity to study the new concept of green management, practice new technologies and new ways of green

management to catch up with the advanced management level of the world. In addition, the power dimension also represents the natural forces of their own. In fact, the natural forces are not only a productive force but also a tremendous productivity. To some extent, so far, the power which natural forces act on the complex is not less than that human do. The following are some of the good examples. We use natural forces to close off hillsides for forest conservation, and its effect is often superior to artificial afforestation; reproducible energy like wind energy and solar energy is also a tremendous natural forces; in agriculture and tourism, to considerable extent, we still rely on natural forces. Therefore, the natural forces are the extremely important force base of productivity, and also an important part of the power dimension.

The power dimension of productivity is a working process, and an important sign to measure whether the productivity is advanced or not, but it is similarly not the only sign.

1.3 Value dimension (also known as effect dimension)

It refers to the effect and value that are produced after productivity acting on the complex; its effect ranges from large effect to small effect, and its value ranges from positive value to negative value. If the level dimension and power dimension refers to the state and process of the action of productivity, then the value dimension is the result of the action. The developed level dimension and strong power dimension can make the complex go forward along the positive direction and obtain positive value, but it may also make the complex run in an opposite direction and produce a negative value. Engels, the master of dialectical materialism, warned us 120 years ago, "Do not over inebriate with the victory that we win against nature. For each such victory, the nature will revenge us. For each victory, we have achieved the expected results in the first step, but it has an impact which is completely different and unexpected in the second and third step, and often counteracts the first result." "The residents of Mesopotamia, Greece, Asia Minor and other areas destroyed all the forests in order to obtain the arable land, but they never dreamt of these places becoming barren desert today for they made these places lose forest, and also lose the centre saving and storing water."^[1] Marx also pointed out very profoundly: "Productivity has reached such a stage in the process of its development, and the productivity and the means of intercourse generated at this stage under the existing relations can only bring disaster. This kind of productivity is not production forces, but the power of destruction."^[2]

The dialectical materialism and historical materialism is the unity of process and results. It not only requires the productivity possess developed level dimension and strong power dimension, but also requires a positive effect and value after the level dimension and power dimension acting on the complex. So how can we produce positive results and values? It once again comes down to the direction of productivity development that is the civilization tropism problem of productivity development.

2. Different understanding of productivity according to the tropism of the different civilizations

Here are talking about the tropism of different civilizations that mainly refer to industrial civilization and ecological civilization. This is because industrial civilization plays an important role in the global community in the past centuries, and ecological civilization is an inevitable trend of the development of the world civilization. Therefore, this paper focuses on the understanding of productivity according to the tropism of the different civilizations.

In many classics and Ci Hai, productivity is regarded as the ability to conquer and transform nature. In fact, this is the understanding of productivity according to the tropism of the industrial civilization. Obviously, industrial civilization makes the level dimension and the power dimension of productivity have a high degree of development. But industrial civilization thinks that nature is to serve mankind and is the object for human being to conquer and reconstruct. Mankind is the dominator of nature, the conqueror of nature and is the center. Industrial civilization is simply to emphasize on caring for people, cherishing people and considering all for people, but it has completely ignored caring and protecting the nature and regarded nature as the side opposite to human. Nature becomes the simplex target under the action of the productivity. On the one hand, human optionally extort more and more from nature, but on the other hand, human release a large amount of waste at their pleasure (including the waste of production and life).As a result, human seriously destroy the nature, which shows the violence of human and the evil of humanity.

Therefore, the more powerful the productivity under the tropism of industrial civilization is, the more ability it has to conquer and transform nature, and then the more destruction will human do to nature. If it should be the case, nature would revenge human being with its inherent rule, causing the complete collapse of both nature and human being. This is the negative effect and value caused by the tropism of industrial civilization.

The tropism of the ecological civilization has a different definition of productivity. It delimits productivity as the ability to advance the harmony between people and society and the symbiotic, co-prosperity and common development of human, nature and human. It is not using this ability to conquer and transform nature (in fact it destroys nature by doing this), but using this capacity to promote the common prosperity and development of human and nature. Nature serves human and human also serve nature. It means mutual complementation, friendly coexistence and symbiotic co-prosperity and common development, showing the coordination of human and the goodness of humanity. Only in this way can mankind and nature have a common better future. Here the object that productivity act on is not only the nature, but also the complex. In the factors of

productivity, the natural force itself has become an important part. Human can also create a lot of work objects to reduce the pressure on the natural world.

Under the tropism of ecological civilization, the development of productivity closely links to caring for people and cherishing people. Meanwhile, it also emphasizes on caring for nature and treasuring nature. It especially attaches the importance of bringing people's initiative into play ,including the enthusiasm, go-aheadism and ingenuity of human, and promotes human and nature to a virtuous circle of sustainable development, and thereby making the symbiosis and common prosperity , and common development of the complex of nature, human and the society possible. This is the positive effect and value of the productivity under the tropism of ecological civilization, and is also the important content of the scientific concept on development and achievement in the post.

But in current actual work on the development of the productivity, there are a considerable number of cadres who can't consciously do everything under the guidance of ecological civilization concept. They frequently have many misunderstanding and get into the old concept on development and achievement in the post, resulting in many wrong-doings. Of course, there are many reasons, but one of the very important aspects is that they regard the developed productivity as equivalent to the advanced productivity.

3. Do not regard developed as equivalent to the advanced productivity.

The three dimensionalities of productivity and the civilization tropism of development have been analyzed above, from which it can be found that advanced productivity is a kind of productivity with two dimensionalities; it mainly is advanced level dimensionality and advanced power dimensionality like advanced science and technology, advanced production tools, and advanced management techniques and powerful natural forces, etc. Today in the world, the productivity of some developed countries may be called developed productivity. However, the developed productivity without the restriction of the civilization tropism is a double-edged sword as science is a double-edged sword. It may have a positive effect or value or a negative effect or value on the complex. While the advanced productivity is different, it is a three-dimensional productivity; apart from the level and power dimensionalities of developed productivity, it also has value dimensionality with characteristics of the positive direction, so it has a positive effect or value on the complex. Therefore, an evaluation of whether it is an advanced productivity or not depends not only on level dimensionality and power dimensionality but also on value dimensionality. From this perspective, the developed productivity is the foundation of the advanced productivity. "The modernization of socialism must be built on the basis of developed productivity." [3]

But the developed productivity can not be equated with the advanced productivity. Developed productivity may make humanity run in a negative direction. Take the United States as an example. It possesses extremely developed productivity, but the world's two percent of the population consumes 42 percent of the world's oil, 30 percent of the global emissions of CO₂ and a lot of waste. If the whole world does as the United States, it needs 20 Earths to meet the demand, but there is only one Earth. Clearly, developed productivity may not be able to promote the developing process of the complex, and only the advanced productivity can make it. "The development of human society is the historical process of advanced productivity replacing the backward productivity."^[3]

"All comrades in the Party, no matter what posts, should check and sum up what they do, to see if the requirements for the development of advanced productivity are met; adhere to those which are in line with the unswervingly advanced productivity; seek truth from facts to correct those which do not conform to advanced productivity; only by doing this can the comrades fully reflect the advanced nature of CPC members and the spirit of the times."^[3]

Comrade Jiang Zemin's exposition of these is actually linking the advanced productivity to the advanced nature of CPC members and the spirit of the times, and the tropism of advanced civilization is precisely the advanced nature of CPC members and the concentrated expression of the spirit of the times, and is the concentrated embodied of advancing with the times. This shows that the advanced productivity, which is built on the basis of developed productivity and developed under the guidance of the tropism of advanced civilization, is in the forefront and leading position in the level dimension, and shows the strongest strength and the highest power in force dimension, and prominently reveals the tropism of advanced civilization in the value dimension. It is a productivity that can make the complex of nature, man and society comprehensive, healthy and sustainable

4. Ecological productivity —— an advanced productivity

Ecological productivity originates from the tropism of the ecological civilization mentioned above, which is also called ecological civilization productivity. It is a kind of advanced productivity.

4.1 Ecological productivity succeeds to the essence of the developed industrial civilization productivity.

As mentioned above, in the process of the development of human society, the level dimension and the force dimension of productivity is a long-term process of accumulation, which cannot be stopped for the reform of the systems of human society or the replacement of civilization form. It will not vanish for the elimination of a class. It is always moving

forward just like the progress of science and technology and advanced production tools, production management and so on. Since the social form of the ecological civilization comes after the society of the industrial civilization, it therefore inherits and develops the important productivity factor of the advanced scientific technology, production tools and management, so it possesses the characters of the level dimension and the force dimension of the advanced productivity.

4.2 Ecological civilization is more advanced social civilization tropism than industrial civilization.

Productivity under the guidance of the concept of ecological civilization shows the direction of the development of productivity.

Ecological civilization is a form of social civilization, in which mankind bring the initiative into full play in the production of material and spirit, and establish harmonious and fine operating mechanism of symbiotic common development and common prosperity between man and nature, man and society according to the objective operation laws of the natural ecosystem and social ecosystem. It is the necessary choice in the 21 century and is the inevitable trend of the social civilization development. It is the fruit of human material and spirit and the results of the combined system, and is a new form of civilization. It reconstructs economic, scientific and technological, political and cultural systems in accordance with the requirements of ecological civilization; it emphasizes the development of green economy, green science and technology, calls for peace and development and opposes the aggression of resources and the colonization of zoology under the industrial civilization; it insists the harmonious identity between man and nature and seeks fairness among nations and justice among generations. So it has more lofty and advanced characters than industrial civilization, which represents its noble and advanced character.

4.3 The functions performed by ecological productivity toward the complex system have positive value and benefit.

The functions performed by ecological productivity toward the complex system have positive value and benefit, which shows as follows:

4.3.1 Ecological productivity can drive the sustainable development of the complex consisting of human society, economy and nature in the 21 century.

This has been discussed in the above parts. It has to be pointed that when testing the value and the effect of productivity, we shouldn't regard human beings as the only evaluation element, especially the Contemporary people but we should consider the complex of society, economy and nature as a whole evaluation system.

4.3.2 Ecological Productivity is the major forces to promote overall social progress.

Firstly, ecological productivity can drive the sustainable development of the complex consisting of human society, economy and nature as mentioned above, which is the

foundation of the overall social progress. Secondly, the development of ecological productivity can push the change of the civilization form. The civilization will change from industrial civilization to ecological civilization, which is the important sign of the overall social progress. Thirdly, the development of ecological productivity can promote the overall progress of man. The overall progress of man is one of the essential characters of socialism, is the highest demand and is also an important content of the new development concept. Ecological Productivity is the major forces to promote overall social progress for it can drive the sustainable development of the complex consisting of human society, economy and nature, push the progress of social civilization and make the overall progress of man come true.

4.3.3 Ecological productivity can meet the changing market needs.

The purpose of socialist production is to satisfy all the people who optimize the material and cultural needs constantly. Requirements determine the consumption and the consumption determines the market and the market determines the production, which is the basic law of economic operation. Nowadays, the most important changing feature of the masses of our people is the change from the amount of material life needs to the living quality, from simplex material life needs to diversification of the needs of material life, cultural life and fine environment, and from dressing warmly and eating one's fill to well-off life. This kind of change is the transformation covering the public, the national society and the natural ecosystem.

(1) Basic necessities of life are the most fundamental and the most common change.

The masses of people change from eating their fill to eating well and healthily concerning eating, from hunting for a room to live in to choosing spacious living space and residing healthily concerning habitation, from dressing warmly to dressing beautifully and healthily concerning clothing, from having fun to playing well and healthily concerning tour. It has the same trend concerning come-and-go. Considering health as the evaluation system of living standard is being formed, which is called green demand. And it is urgently required that more real green products and green marketing be offered to meet the increasing green demand. The trend of green demand is popular in our country and the developed countries and many developing countries. Green threshold of international trade is increasingly concentrated reflection of this trend.

(2) National security needs are also changing. Ecological security is becoming as important as the security of military security and political security with the global deterioration of the ecological environment and continuously deepening awareness of the ecological safety. It is not only directly related to the survival of a nation, but also directly impacts on military security and political security.(The deterioration of the national ecological environment will directly reduce the military defense capability, will result in

refugees due to the ecological impact and affect political security, and will also lead to international military and political conflict).

(3) Industrial development needs major change. Making a comprehensive view at the development of nations all over the world, all high-tech industries, high value-added industries and highly competitive industry need a sound foundation of ecological environment. This trend is increasingly apparent.

(4) Material demand in social infrastructure and national strategies changes. Examples are as follows: renewable energy as the representative of green energy will gradually replace non-renewable energy and grey energy; water resource has become an important social infrastructure and national strategic material.

(5) The demand of the comprehensive development of man is enhancing. The life demand of people change from comparatively single material to the multiple needs of material, culture and ecology. The masses of people particularly pursuing a good ecological environment and ecological culture (like ecological taste, ecological leisure, eco-tourism, eco-health care, getting close to nature, and get along with nature, etc.) has become a major current at home and abroad. Eco-cultural industry is booming.

(6) Natural ecosystem also has demands. In the industrial civilized society, the people regard the natural ecological system as the antithesis of humanity and as the external economy of non-owner and no-cost. So people come down on it first and then plunder it and finally destroy it. while ecological civilization concept considers that human beings should live in harmony with nature and gain symbiotic co-prosperity and common development, that the demands of human beings and the nature should both be met, and that human beings shouldn't only come down to the nature but should also respond the nature through laboring so that the natural ecosystem can renew its material and energy. Only by doing so can human being and the nature reach a win-win effect and form a fine circulation and make the sustainable development of time dimension and space dimension come true.

In short, the market is changing with the general public, national, ethnic, social and natural changes in demand. There is a most important principle in the market operation calling that he who submits to it will prosper and goes against it will lose, which cannot be transferred by man's will. In fact, only ecological productivity can adapt to all kinds of market demand. In this sense, ecological productivity conforms to the trend, follows the basic law to keep pace with market demand and develops the productive forces, so it has great vitality. It must be pointed in particular that the development of ecological productivity is the root to improve people's quality of life and thus can greatly enhance the motivity of economic development. There are on doubt many reasons why China's urban and rural people's consumption level is still relatively low and the majority of the domestic market has not been yet out of recession. However, one important reason is that ecological

productivity hasn't got full development and the conflict between the requirements of masses of the people continuously improving the quality of life and the dominant productivity of industrial civilization still exists. Productivity of industrial civilization has led many parts of the masses of the people to poor environmental conditions, such as many diseases caused by serious soil pollution, air pollution, water pollution, light pollution and noise pollution; it also causes all kinds of natural disasters, or even ecological victims; chemical fertilizers, pesticides, hormones and harmful minerals through the biological chain of residues of this generation will not only directly endanger people's health, but will also threaten the health of future generations through the role of genetic factors; and productivity of industrial civilization has still other side effects.

Therefore, some people believe that living standards have improved, but the quality of life has decreased. Many people do not or dare not consume basic necessities of life due to all kinds of insecurity factors, resulting in a consumer crisis of confidence and reducing the motivity of economic development. Productivity of industrial civilization has side effects on the masses of the people and thus reduces people's enthusiasm, initiative and creativity, and so on. The development of ecological productivity can fundamentally improve the situation, can to a large extent improve people's quality of life, raise the level of consumption and stimulate economic development and so on. This has been successful practice in many areas.

4.4 The development of ecological productivity is the basic requirements of implementing the scientific concept of development.

CPC Central Committee and the State Council of China put forward, which is a new scientific world outlook in the 21st century. The concept of scientific development has a strategic significance toward the development of the country and the nation, and is also a contribution to the development the world. The basic requirement of the scientific concept of development is comprehensive, coordinated and sustainable development, which has three basic connotations: the first is that development is the main theme, the most important task, the foundation to solve all the problems, and development should be sought wholeheartedly; the second is that the comprehensive, coordinated and sustainable development of the complex of society ,economy and nature is the coordinated and sustainable development of politics, economy, society, culture, and other aspects; the third is that coordinated development, sustainable development and all-round development are an organic macrocosm, and they are interdependent and complement each other.

To achieve the basic requirements of the scientific concept of development, we must first change the old ways of production and way of life, advocate new ways of production and way of life, especially the development of ecological productivity, develop green economy, promote green consumption and cultivate green market. Ecological productivity

is a new advanced productive forces; its core is to promote the comprehensive, coordinated and sustainable development of society, man and nature, so the development of ecological productivity is the foundation and protection of implementing the scientific concept of development.

5. Links and differences between ecological productivity and productivity of industrial civilization

About this issue we have described much above, but this is a misleading question that can be easily mixed up by people. Here again briefly summarize it.

Productivity of industrial civilization is a developed productivity, and ecological productivity is a new productivity on base of inheriting the developed productivity of industrial civilization, representing the direction of the development of productivity in the 21st century.

The technology is a grey technology in productivity of industrial civilization. It will not be able to make productivity bring the right value and effect of the complex of nature, human and society, and it will have significantly negative value and effect. So in the productivity of industrial civilization, “the modern industrial technology, now known as the ‘advanced technology’, will be regarded as ‘backward technology’ in the future for it plays a role in the form of wasting resources and polluting the environment, and it cannot continue to work until it is remodeled or its unreasonable ingredients are abandoned”^[4]. However, the technology in ecological productivity is ecological, scientific and intelligent designing technology and production technology, is the integrated high-tech syncretizing ecology, economics and ecological engineering, industrial ecology, sociology, modern management and the related technology in the areas of the industry, which is able to produce the positive value and effect of the complex; it is bound to replace the gray technology. Therefore, ecological productivity will replace the productivity of industrial civilization and is the representative of the advanced productivity in the 21st century.

Productivity of industrial civilization will be replaced by ecological productivity due to the different internal structures of the two productivities (the different structures result from human dominated by two different concepts of civilization). The internal strength and movement will not be transferred by the subjective will.

6. Links and differences between ecological productivity and green productivity

Some experts and scholars at home and abroad are researching green productivity, which provides a good study platform for us to learn the ecological productivity. We can

say that the green productivity and the ecological productivity are like brothers, but they are also distinguishing. Now we take several representative views to analyze it.

Some experts define the green productivity as caring for the environment in the process of developing productive forces. They believe that if the process of a production does too much damage to the environment, or the negative impact of a production is overabundance, the production should not be carried through or should not be produced without restriction, even if we have the resources and technology. Some also believe that green productivity “means that through choosing the process of developing green productivity, the increase of China's economy is forced to change from a grey way to a green way and then from the rapid increase to gradually moderate increase. We firmly believe that as the transformation of economy changes from the rapid increase to the moderate increase, green productivity is bound to occupy a dominant position as a whole in the increase of the economy.”^[5] The author believes that the essence of this definition is concerned about the negative impact of the production, and is at the cost of reducing increase. However, ecological productivity pays close attention to the positive impact of producing process. It makes good use of ecological, scientific and intelligent technology to obtain positive impact of producing process, and to avoid negative impact. In this way, a relatively large increase can be maintained through developing ecological productivity, so it is active, while developing green productivity is passive. Developing green productivity is to restrict production, while developing ecological productivity is to develop production, so there is a difference between the two.

Some experts define the green productivity as the productivity restricted by system, namely the channels of developing productive forces, and believe that making use of restrictive conditions can obtain "development--- the last word", and at the same time ensure the evolution of productivity means that will not damage the environment and resources. The author believes that the channel is external factors, and external factors are binding forces, not decisive forces. Ecological productivity achieves harmony, symbiotic co-prosperity and common development of the complex of nature, human and society through the forces of its inherent essence (such as the development of eco-technology systems). Only inherent and essential factors are decisive forces and the inevitable trend of the development of things.

"Not damaging the environment and resources" and "common development" are two different levels of demand, but there is also intrinsically linked. So "green productivity" and "ecological productivity" also have the same relationship. We can be sure that "green productivity" is a way to the ecological productivity, or a pattern of developing ecological productivity in its initial stage, but not the only pattern. Ecological productivity is a modality of productivity more comprehensive and more high-level than green productivity.

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