



Study on the Value Base of the Capability Construction of Urban Traffic System

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The research is financed by the National Key Technology R&D Program (No. 2006BAJ04A08-10). (Sponsoring information)

Abstract

The urban traffic system based on traditional value view has faced many problems. Based on the sustainable development view which takes the double needs including the subject need and the object need as its value base, the connotation of the capability of the urban traffic system is proposed in the article, and the double needs are two important aspects of the value base of the capability construction of urban traffic system.

Keywords: Urban traffic system, Capability, Value base, Sustainable development

Since the city established in the industrial revaluation formed, the concept of sustainable development has largely impacted the value view of “anthropocentrism” which only considered fulfilling the need of the subject (i.e. human beings). The opinion of sustainable development can not only introduce new contents into the research domain of urban traffic, which makes the problems about society, resource and environment to be emphasized and studied on a higher layer, but induce the reconstruction of the capability base of the urban traffic system.

1. Problems existing in the urban traffic system based on traditional value view

First, traditional value view of urban traffic system oriented the value base to the “anthropocentrism” which only fulfilled the need of subject (i.e. human beings). Based on this value base, human value concept and behavior fashion certainly take the “selves” as the center and ignore the existence and evolvement of the nature. Traditional value dimension oriented the value base to the “fulfilling the need of subject”, which inevitably made the value relation between human being and nature to have the color of the extreme utilitarianism. People sometimes only start from their own needs and benefits, and regard the nature as the subordinate which they can use randomly, so the implementation of the value target is almost based on the self-need, which directly induce the degeneration of the environment and the abuse of the resources (Chen, 2005, p.111-118 & Mou, 2000, p.38-40). In this way, the human being only emphasize the rights to the nature such as the occupation rights without payment and the soliciting rights without term, but completely ignore the “need of subject”, i.e. the need of nature.

Under the function of this value view, the urban traffic system which gradually rose and quickly developed because of industrialization also completely ignored the existence and evolvement of the nature, and the classic traffic research methods put the function of traffic to the economic growth on the top station, but didn't fully consider the limitations of the traffic system from the environment and resources, only pursued to extend the supply, so the development mode of the supply-oriented type was formed (Chen, 2003, p.78-81).

Second, the urban traffic system based on the traditional value view is facing serious challenge. With the quick development of Chinese economy, Chinese urbanization is also entering into the stage of quick development, and the tendency of human urbanization is more and more obvious, and the communication between human and matters increases largely, and in many cities, the traffic has been the bottleneck to restrain the economic development. Based on the traditional value view, the urban traffic planning faced to demand of traffic, and the urban traffic system would always form the supply-oriented mode. Under this mode, on the one hand, the infrastructure construction developed quickly, but on the other hand, the traffic travel amount of private car increased dramatically and could not be controlled, so the traffic systems of many cities in China was in a vicious circle of “more cars- road construction- more and more cars”, and the vicious circle from resource consumption, ecological unbalance to environment quality degeneration further formed. Undeniably, in the situation that the traffic supply and demand seriously lost balance, the construction was necessary and effectively, and the infrastructure construction with large scale could successfully keep the deterioration of the crowded traffic within limits in some stages, but the sustainable development of economy will

certainly quicken the speed of urbanization and mechanization, especially the urbanization of China is lower than the corresponding economic development level.

When human beings ask for various rights to the nature, they sometimes forget the limitation to themselves. On the one hand, the increase of traffic demand and the change of traffic mode have not been managed and restrained correspondingly, and on the other hand, the urban traffic will infinitely use the resource. Aiming at the increasing traffic demand, human beings only increased the infrastructure construction of the urban traffic, built and widened existing road infrastructures, but didn't consider that the function location, spatial structure and urban traffic system in the city should be developed harmoniously, even in some cities, the edge areas were developed without limitations by the guidance of the road infrastructure, which made large gap occurred in the supply and demand of traffic. In most cities of China, the traffic technology level is low, especially the quick railway traffic systems with large carrying capability are deficient, and the deficiency of traffic capability of road and conveyances often induced many problems such as traffic jam, long traveling time, weak traffic management and worrying traffic security. The limitless increase of motor vehicle will induce the increase of atmosphere pollution and noises which have been the main sources of the environment pollution in big and middle cities. The proportion of traffic transportation in the energy consumption of various industries continually increases, especially the dependence and consumption of the oil resources will further deteriorate the structured conflict of the supply and demand of Chinese energy (Li, 2002 & Han, 2007, p.106-110).

2. The sustainable development and the capability of urban traffic system

Traditional "anthropocentrism" only started from the dimension of single value "fulfilling the need of subject", which makes human being eager for quick success and instant benefit, and induces the development of natural environment emerges into the vicious circle, and it has not adopted the requirements of the social development, therefore, it is the urgent affairs to concern the "need of object" for the development of the value view, and people should get rid of the short sight about the individual benefit and human present, and turn to care about the existence and development of human being which is in the "species". So human being should evaluate or study the value relationship between object and subject from two value bases including the subject of value and the object of value, i.e. the value should be established on the double value bases which can fulfill not only the need of subject, but the need of object. So both the human being and the nature are required at the same time. On the one hand, the nature offers materials such as energy and resource and survival space to fulfill the needs of human survival and development, and on the other hand, human being should protect the natural environment to fulfill the needs of existence and evolvement of the nature.

The view of sustainable development is the new value view which takes the double value bases as the start, and the sustainable development is a comprehensive concept involving economy, society, culture, technology and natural environment, and it mainly includes the sustainable development of natural resource and ecological environment, the sustainable development of economy, and the sustainable development of society. The target of the sustainable development is to realize the sustainable, stable and health development of the composite system with nature, economy and society. It means that human cognition to the nature has been transferred from the space type to the time-space type, requires the realization of the harmonious development of human and nature, pursues the harmony among human beings, and realizes the justice among generations and in generation.

Therefore, the value base of the capability construction of urban traffic system is the theory of sustainable development, and the total target and the development strategy of the sustainable development will induce the adjustment and change of the value view of the urban traffic system construction. So the relationships among the urban traffic, lands use, resource distribution, ecological environment protection, traffic demand management and technology will be properly adjusted, and the relationships among the urban traffic system and society, economy and macro ecology will be studied to establish the capability system of the urban traffic system with sustainable development will be established.

The capability of urban traffic system means the ability which is possessed and controlled by the urban traffic system, is established by attracting various resources, is to ensure the development of itself and the big complex system of society when fulfilling the higher requirements from the development of the society, and achieve the long-term and dynamic organization and harmony between the interior of the urban traffic system and the exterior environment. It includes the ability to control and fulfill the traffic demands, the ability to improve the quality of environment, and the ability to optimize and utilize resources, and these three abilities are based on the double-value dimension and the sustainable development, and they are associated and restrained each other.

Concretely speaking, under the guidance idea of reasonably utilizing resources and protecting ecological environment, the urban traffic system should take the advanced scientific technology as the base, enhance the control power, utilizing efficiency and service level of the traffic system, and offer guarantees for the sustainable developments of the whole society and the ecological environment when reasonably fulfilling the demands of the economic development. The decision-makers should pay attention to the optimization and utilization of resources and the protection of the urban ecological environment, emphasize the enhancement of the using efficiency of traffic establishments, and accord with the total requirements of the sustainable development of the composite system including city, society, economy, ecology

and environment when fulfilling the demands in the near future.

3. The capability construction of urban traffic system should be based on the natural value view of sustainable development

The natural value view of the sustainable development is to pursue the harmonious development between human being and nature, and it can embody a kind of modern “anthropocentrism”, and it persists in the principle status of human value, and emphasizes human preferential status and intention status in the natural ecological system (Jia, 2000, p.95-98).

The sustainable development is to solve the conflict between the infinity of human development demand and the limitation of natural resources, i.e. the problem whether human value orientation and development intension to the nature accord with the natural rules. The settlement of this conflict is historical, and it is a course with permanent and durative time. At the same time, because of the regional feature of the resource distribution, the human beings in different regions have different value orientations, development intentions and natural rules to the nature, so the settlement of this conflict is also concrete. Thus it can be seen that the sustainable development is to explore the natural value view of the harmonious development of human beings and natures from time and space, and correspondingly, the urban traffic system should adopt the natural value view of the time-space type to utilize the natural resources.

The urban traffic system is the entity composed by five mutually functional factors such as human beings, car, road, environment and energy, and it is closely associated with the ecological environment where urban citizens depend on to survive. On the one hand, the developed urban traffic system must be based on natural resources such as lands and energies, and on the other hand, the urban traffic has brought serious pressures to the resources and environment, and largely impacted the developments of the society and the economy. Therefore, the capability construction emphasized by the urban traffic system is the development with certain limited conditions, and the sustainable development of the urban traffic should be realized by transforming the development mode. First, the growth speed and mode of the urban traffic demand can not exceed the load of the urban environment. Second, the supply of the urban traffic transportation should match with the growth speed of the transportation demand. Finally, the economic construction supported by the urban traffic system must use the natural resources and environment costs by the sustainable mode to control the development in the load of the urban environment. By various limitation conditions, the production mode and the consumption mode of the urban traffic system can be changed to implement clean production and civilized consumption, and reduce the environment pressures induced by each unit personnel’s traffic activities.

The local governments should largely exert the function of the scientific technology which is the first productivity, fully exert the positive effect of the scientific technology, increase the investments of scientific technology, continually enhance the contribution share of the scientific technology in the growth of traffic transportation, use advanced scientific and technical means to enhance the transportation ability and the ability of traffic management, and research, develop and adopt advanced, quick and safe traffic vehicles and measures with low energy-consumptions such as controlling the land use scales, adopting strict development mode, emphasizing the land development combining with traffic planning and oriented public traffic, researching and developing traffic vehicles with low energy-consumptions or new energies, promote the high efficiency to realize the utilization of resources, establish the running system with resource saving, realize the optimized allocation of resources, and effectively enhance the resource utilization rate.

4. The key of the capability construction of urban traffic system is the social value view of sustainable development

The social value view of the sustainable development is to realize the harmonious development of economy, society, culture and nature. That is to say, the sustainable and harmonious development of the society should be the high integration of three dimensional system of “nature-economy-society”, and its core idea is the harmonious development of many factors such as society, economy and ecology to realize the normal cycle of the whole society. Just as Deng Xiaoping pointed out, “the problem of development should be cognized on the level of whole human beings, and problems should be observed and solved on this level too (Editorial Committee on Party Literature of the CPC Central Committee, 1993, p.282)”. Therefore, the sustainable development is the sustainable development of the whole society, and it is the development view taking the human beings as the center, emphasizes the mutual development of economy, society and human beings, starts from “human development” and ends in “human complete development”. The final core and the ultimate target of the sustainable development are the complete development of human beings (Liu, 2008, p.40-42). The sustainable development is also the global problem which can influence the reality and future of the survival and development of whole human beings, embody human mutual benefits and value orientation to the largest extent.

The sustainable development is also a kind of human social practice guided by the idea of sustainable development. The practice form of the sustainable development view is the development mode of ecological economics. The development mode of ecological economics is the economic development mode which highly effectively utilizes the natural

resources and combines with the functions and process of the natural ecological system (Xiang, 2003, p.106-108). As a sort of new concept, though the sustainable development has been cognized by the earth, but the cognition degrees are different, and the practice types in different countries and regions in different development stages are significantly different, so the strategic practice of the sustainable development should be studied from the global and regional angles, and the practices should standardized in empirical researches to realize the target of the sustainable development on the meaning of the whole planet (Liao, 2002, p.40-41).

The social value view of the sustainable development decides the social value view of the capability construction of the urban traffic system. The social value view of the capability construction of the urban traffic system can persist in the people-oriented idea, offer better life, work, learning and leisure space for human beings, create better base and conditions for human complete development, re-scan the development strategy, system planning and system management of urban traffic by the research about the relationship between the society-economy-ecology and the traffic system, adjust the strategic target of the system, and more widely pay attention to the balanced development of the society and the fair distribution of traffic resources.

Therefore, the ultimate target of the capability construction of the urban traffic system is to pursue the complete advance of the society, research the practice of the capability construction of the urban traffic system from the global and regional angles, standardize the practices in the empirical researches, realize the sustainable development target on the global meaning, and realize equal development opportunity and equal service of various regions and groups in the whole world.

Only the urban traffic system can keep being harmonious with economy, society, resource and environment in every term, it will accord with the demand of the sustainable development. By the durative, stable and healthy development of the urban traffic system, taking the uniform of economic benefit, social benefit and ecological environment benefit as the center, the saving-type economic development mode with high production, good quality and high efficiency will be established, the high reserves of human resource will be realized and laborers' comprehensive quality can be continually enhanced, and the urban traffic ecological civilization in the whole planet will be established.

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