

# Study on China-ASEAN Tourism Cooperation Mechanism Based on Symbiosis Theory

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## Abstract

Taking China-ASEAN economic zone as study object, based on the connotation and target of regional tourism cooperation, the symbiotic theory in population ecology is introduced to analyse its feasibility in regional tourism cooperation. All the parties participating in the regional tourism cooperation are considered as ecological organic communities. Through further analysis of symbiotic unit, symbiotic model, symbiotic environment and symbiotic interface, the operation mechanism and strategies will thus be put forward from a new point of view.

**Keywords:** Symbiosis Theory, China-ASEAN Economic Zone, Regional Tourism Cooperation, Mechanism

## 1. Introduction

Symbiosis, as an ecological concept, is first put forward in 1879 by the German mycologist Anton de Bary, who defined it as the living together of unlike organisms. With the further studies on symbiosis and the development of social science, symbiosis as an idea and concept has gradually aroused the attention of anthropologists, ecologists, sociologists, economists, managerialists and even politicians. Symbiotic concepts and theories from ecological field are being exerted and implemented in many fields.

The theory of symbiosis maintains that biologic symbiosis consists of three components, namely symbiotic unit, symbiotic model and symbiotic environment. The symbiotic unit refers to the basic energy generation and exchange unit that constitute the symbiont or the symbiotic relationship, and it is the essential material precondition for forming the symbiont. The symbiotic model, or symbiotic relationship, is the ways how symbiotic units interact each other, or the forms in which they integrate. The symbiotic model reflects both the ways how the units interact and the intensity of interaction; it also indicates the exchange of material information and the exchange of energy between the symbiotic units. All the elements outside the symbiotic units make up the symbiotic environment. The three components are interactive and jointly indicate the dynamic change and the law of the symbiotic system. Of the three components, symbiotic model is the key, symbiotic unit the foundation, and

symbiotic environment the crucial external condition.

The medium through which the three symbiotic components interact is termed as the symbiotic medium. It is the medium, the passage as well as the carrier for the symbiotic units to transmit substance, information and energy. The symbiotic medium embodies the mechanism of the interaction of the symbiotic units and it is the internal factor that calls for the form of a symbiotic model. The selection mechanism of symbiotic medium stands at the core of dealing with complicated relationships between symbiotic units.

## 2. The Symbiosis Theory and Regional Economic Cooperation

With the coming of the new century, the economic globalization expresses its way in China-ASEAN as a rapidly pushing trend of regional economic integration. There appear several large-scale trans-provincial regional economic bodies, such as Yangtze River Delta, Pearl River Delta, Bohai Rim, the Greater Northeast China, the ASEAN. On how to set down the method and medium between trans-provincial regional economic cooperation, and how to remove the obstacles the administrative areas poses on regional economic amalgamation, most researchers are based on the regional economy and industrial economy, taking the cooperating parties as the economic bodies of unity of opposites. Through the research and analysis on the development target,

motivation mechanism, restriction factors of regional economic cooperation, they conclude a series of measures and strategies for the development of regional economic cooperation. In spite the great success of the pass researches, with the ever extension of regional economic integration, it is gradually discovered that the cooperation and development of regional economy, as a systematic project, doesn't only involves economic factors, but also relates to many factors such as politics, ecological environment, population, culture and even conception. In other words, the main body of economical cooperative development is the organisms that contain complicated relationships. In order to solve the present problems in regional economic cooperation, a point of view that surmounts economy must be adopted to carry out cooperative development.

Divarication of theories derives from research perspectives, which at the same time indicates that the issue of regional economic cooperation is a complicated systematic project and involves many aspects. As one of the core theories of population ecology, the symbiosis theory studies the information transmission, the substance exchange and energy conduction between complicated community as well the model and environment of cooperative symbiosis. Therefore, this theory is highly compatible with and applicable to the issue of regional economic cooperation. Meanwhile, in order to obtain the common benefits, the natural person, the artificial person, the economic organization, the industrial association and the regional government will carry out economic cooperative activities in production field with the removal and redistribution of the essential factors of production as its main form. This is the same as an advanced level in symbiosis theory—the formation and function of symbiotic model. In this way, the contents, objectives and mechanism of regional economic cooperation is highly consistent with the symbiosis theory, which can be applied to analyze the problems in regional economic cooperation.

This article will take the China-ASEAN dual-core Economic Zone as an example, based on the connotation of regional tourism cooperation, using the symbiotic theory of the population ecology, and the overall regional tourism co-operation both as an organic species with complex ecological relationship, through analysis the symbiotic units, symbiotic model, the environment and symbiotic interface of the regional cooperation in tourism, from a new point of view, to propose the operation of the regional tourism cooperation and the possible response mechanism.

### **3. Analysis on the Symbiotic Units of China-ASEAN Symbiotic Tourism Cooperation**

A symbiotic unit refers to the basic unit of energy production and exchange of the relationship or construction of symbiotic, which is the basic material condition to form a symbiotic. When we see the relevant economic region participate of economic cooperation as a symbiotic system, the participation of regional economic cooperation has become a symbiotic subsystem. Furthermore, for each subsystem, in accordance with the views of the tourism industry, government, tourism-related enterprises and intermediary organizations can be seen as a symbiotic unit.

Among them, the enterprises are the core elements of regional tourism cooperation symbiotic system, which specialize in economic production and exchange, and guide people's actions with authoritative command, and configure resources with orders and plans. It is characterized by existing in the symbiotic relationship of series of mutual needs and mutual survival interdependence, including within the industry and among industries symbiosis.

The Government states that the administrative bodies at all levels, the Government's main functions include standardizing and stabling the market order, controlling the macro-economy, making up for lack of markets, providing policy support functions for enterprises and the functions of market services. For regional tourism cooperation, the Government's main functions are defined as the development of regional cooperation to providing policy support and protection, using available resources for the development of the various economic entities to provide the necessary development space as a macro-controller and market server development zone.

Regional tourism agency is the important security for the formation and development of the symbiotic system. its scope is relatively broad, it works as a professional service activities organization which coordinates, evaluates and links between governments, enterprises, society and individuals; it is the bridge and link to communicate with the Government, society, enterprises and individuals. Its purpose is to promote positive effect among social inter-subjectivity. Intermediaries include trade associations, research institutes, and other financial institutions.

For a symbiotic system, there must be links among symbiotic units; at the same time, the symbiotic partner selection is not random while

formatting a symbiotic relationship, but shows certain regularity, that is, degree of the symbiotic relationship will not be lower than a critical value. Any symbiotic unit with high capacity and easy matching ability will be preferentially chosen as a good candidate. This provides a basis on the path of regional cooperation in tourism. In that case, the symbiotic relationship of regional tourism should be included in the following conditions [5]: similar or complementary tourism resources to each other as well as the spatial proximity or convenient contact; links on culture or politics, or resource and market elements, the basic support services and facilities, a higher degree of awareness to the region among tourists (or there are a number of high-profile tourist destinations in the region); Symbiotic manner is decided by the degree of similarity of tourism regions or complementarities of heterogeneous tourism regions. It can strengthen the common advantage of similar tourism regions and reassign basing on cooperation; heterogeneous tourism regions have complementary advantages.

ASEAN comprises 10 countries: Brunei, Kampuchea, Indonesia, Laos, Malaysia, Burma, Philippines, Singapore, Thailand, Vietnam. In 2005 December, at the Ninth China-ASEAN leaders meeting, Premier Wen Jiabao on the initiative, the meeting decided in five key areas of cooperation basis, traffic, energy, culture, tourism and public health as the new five major areas of cooperation. In addition, China officially became the East ASEAN announced growth area development partners. With the constant deepening of mutually beneficial cooperation, the construction of China-ASEAN Free Trade Area steadily. In 2005 July, China-ASEAN Free Trade Area "agreement on trade in goods" began to carry out more than 7000 kinds of commodities, both sides began to lower taxes, trading volume continued to grow. In 2006, China and ASEAN bilateral trade volume reached US \$160800000000, year-on-year growth of 23.4%. In January 14, 2007, China and ASEAN signed in Philippines Cebu, China-ASEAN Free Trade Area "service trade agreement". The signing of the agreement for China-ASEAN FTA duly completed to lay a more solid foundation. China and ASEAN both adjacent region, blending economy, and strongly complementary, which applies a broad cooperative basis and a promising prospect in the field of tourism.

In the development of regional economic cooperation, the "boundary" and conditions issues are the key of cooperation in the region. If the Regional co-operation is too small, it can't form the economic hinterland of supporting economic development in the region. If the

scope of cooperation in the region is too large, it is easy to form the extension of economic cooperation too "pan" and the connotation is not "solid". Because of the loose cooperation the regional economic cooperation cannot be the "absorption" effect. For the symbiotic system, it is the density of the so-called problem of symbiosis. At present, there are some deficiencies on the symbiotic system in density of China-ASEAN Economic Zone cooperation in tourism. On one hand, China and ASEAN develop rapidly, but due to Administration and geographical reasons of China-ASEAN Economic Zone, the development and economic radiation force of the two places are limited; on the other hand, since the polarization effect of Chengdu and Chongqing can attract a large number of people and logistics. The negative result impact has shown which constrains the development of China-ASEAN tourism cooperation to some extent. Therefore, it is necessary to establish and develop the sub-economic hub which can not only promote the development of surrounding areas, while China and ASEAN can be enhanced docking.

#### **4. Analysis on Mode of China-ASEAN Symbiotic Cooperation in Tourism**

By symbiotic theory, a symbiosis pattern means the combination between the symbiotic modules, it reflects not only the way and strength between symbiosis units, also the material, energy and information exchange between them. Divided by the behavior, it can be divided into parasitic relationship, commensalism relationship, symmetrical mutualistic symbiosis relationship and non-symmetrical symbiotic relation; and by organizational level (organizational model) division, it can be divided into points symbiosis, intermittent symbiosis, continuous symbiosis and integration symbiosis. Symbiotic pattern of different models have different characteristics, but they are also interconvertible. [6].

The China-ASEAN tourism cooperation had reached a complementary source program market since 2000; at the same time, the mutual support and cooperation operation of the two places in tourism have been strengthened and they basically reached a tacit understanding between the two sides. China and ASEAN tourism resource complementarity, cooperation in tourism has been an important part of bilateral and regional cooperation. At present, Vietnam, Singapore, Thailand, Malaysia and other ASEAN countries have been residents of China's outbound tourism destination before 10, Malaysia, Singapore, Philippines, Thailand, Indonesia and other ASEAN countries has always been the inbound tourism in China's 15

largest source country of. In 2010 the first station to ASEAN countries to China more than 5000000 passengers. However, in practical level, because of administrative barriers, as well as regional-based interests above everything else, such as the reasons for the impact of multi-level, which makes China and ASEAN join the administrative segregation as a result of enhanced due to man-made factors during the process of competition inevitably, which form a distorted competition relation. varieties of transport and infrastructure in the region is weak on division of labor and combination, as well as lack of international shipping capacity; regional information network has not yet formed yet; due to the lack of unified planning and overall development, tourism product structure is irrational, weak sense of innovation; Due to the natural eco-tourism of the region for and cross-source markets overlap, regional tourism competition is more and more increasingly. In essence, the current pattern of tourism cooperation between the two sides is most point symbiosis under parasitic behavior, specific performance is, at present, mainly in the region to develop tourism resources, and partial realization of regional tour lines. It can be said that tourists of the leading region distributing to other cooperate tourist areas is the basis for the development of tourism. Lack of division of labor and collaboration in the region, there is no mutual constraints, and it is clear that the operation of this model is not only inefficient, but also no uniform standards and examination on tourism services. Thus this model brings very limited economic benefits to the regional economic development.

"Symbiotic integration" is an ideal organizational model for China-ASEAN tourism cooperation, and its essence is linkage coupling of competition and cooperation of regional tourism. "China-ASEAN Tourism symbiotic integration" refers to tourism between the China-ASEAN, for the entire (or partial) market expectations and overall goals, voluntarily through the market-driven symbiotic interface, the culture, resources or political connections to take all-round cooperation, including the forms, resources, markets, brands, information, industries, infrastructure, ecological environment, and system integration. That is the regional tourism patterns gather in the space, which has become the incubators of tourism elements flow hub and tourism products innovation; to break the boundaries of administrative areas, the implementation of regional resources should be taken in the area; free movement of goods and factors should be realized, as well as passengers and brand sharing; sharing of information, education,

training, research and development the implementation should be achieved; regional tourism industry system and the industrial chain should be well-established; both sides together should safeguard the ecological environment and norm around the policies and systems. And "symmetrical mutually beneficial symbiosis" is an ideal model for China and ASEAN tourism cooperate. Specifically, premising on recognizing a conflict of interest and competition, while stressing the differentiation strategy, regional tourism advocates greater local confrontation into a space of coexistence, focusing on the development and protection of the common advantage, emphasis on generating new and creative partnerships from competition, and expands their respective sharing areas, to reorganize unique and difficult to imitate strategic resources and competitive strength. Stress the importance of shared interests and obligations, and build a unified and harmonious whole, in order to achieve a high level which is reachless for any single party and the overall best interests.

China-ASEAN tourism cooperation should be targeted on the above-mentioned ideal symbiotic model and based on intra-area type rich tourism resources and clues in the history of culture, taken transportation as a link, to concentrate spatial patterns of and integrate regional tourism resources, At the same time, to break the regional economic barriers, to eliminate obstacles of regional cooperation, to realize free movement of goods and factors, including commodity and marketing of production tourism, hotel supplies of rations, management of tourism enterprises, investment in tourism facilities and resources, flow, tourism education, and training of guides and high-level tourism professionals, share of research and development and regional source markets, and to cultivate a unified brand of the regional tourism. Speed up access and infrastructure, such as the airport, ports, high-speed railway, highway, urban light rail in cities, tourism facilities and services convergence, and accelerate the building of the tourism corridor and the gateway node, to form a regional unity, efficient and convenient transport and service network to achieve regional linkage quality standards in tourist areas; together to safeguard the ecological environment, to attach importance of protecting shared environmental resources and facilities, to achieve the objectives of efficiency and fairness.

## **5. Analysis on Symbiotic Environment of China-ASEAN Tourism Cooperation**

Symbiotic environment mean the sum of all influencing factors apart from the symbiotic unit. The interaction between them is usually through the flow of material, energy and information. To any of them, the role of the environment is positive, neutral and reverse, and their reaction is also shown for the positive, neutral and reverse.

China-ASEAN tourism cooperation symbiotic environment is a multi-level and diversified synthesis, and the environment can be divided into hard and soft environment. Hardware environment is directly related to the external material conditions of tourism cooperation operators, mainly refers to the region's infrastructure, location factors, natural environment and so on. The soft environment refers to the sum of intangible and non-material conditions which have a major impact on the symbiotic unit among the tourism cooperation region, it has a dialectical unity relationship between the soft and hard environment building, but also a certain degree of relative independence. Soft environment for cooperation in tourism areas mainly includes the policy environment, economic environment, cultural and social environment, and the environment in four areas of service.

For China-ASEAN tourism cooperation symbiotic relationship, their hardware environment has a certain foundation. They both have advanced economy, and there is a good industry, agriculture, transport, science, technology and education foundation. More important of all, the both cities are located in the most economically developed and the highest density regional economy of western region. There is rich labor, water and mineral resources, at the same time with the west line with few of the basic conditions for economic zones, with great production capacity and development potential, to promote regional economic prosperity and development of the western city. They are located in the heart of the western region, has advantages of connecting to the Northwest, Southwest, the sea and customs. However, for the soft environment, they also need for coordinating urban and rural areas through the platform of the national experimental zone for comprehensive reform for further reduce the administrative divisions from the original imperfect competition into the market endogenous competition of the China-ASEAN experimental zone, instead of competing for "center" or "hub" title, they should build a new type of symbiotic cooperation between the two metropolitan areas

to play a dual role in growth, together with the tourism industry to create and achieve complementarities and capital resources, policies and rules of interaction, the total market and the interests of entitlement to a harmonious and scientific development of the western region as a whole, the tourism-led economic growth and speed.

The history between China and ASEAN is with two veins, homologous culture, economic and physical, to the adjacent, connected intelligence, meaning the same. They both should have their own needs in using of resources in the development of tourism economy and can complete one another to share. In order to promote the symbiotic unit and their symbiotic environment where two-way between the incentive to protect the continued operation of tourism cooperation, the following mechanism should be steadily pushed forward: (1) incentive mechanism. At all levels of government, administrative officials should cooperate in promoting regional tourism to play a dynamic and active role. We need to reform the personnel system, performance evaluation system, taxation system and encourage government officials have an incentive to promote the development of regional tourism cooperation. (2) Tied mechanism. In order to ensure the sound development of regional cooperation in tourism, it is necessary to the separation between the main body of the chief of the inherent constraints to form a common mechanism to ensure that the basis of common interests binding the development of common policy and institutional norms. (3) Management mechanism. To promote the normal development of regional cooperation in tourism, the region must establish common services management system, coordinating the interests of all parties in order to maintain normal economic order. (4) Mechanisms for benefit-sharing and compensation. Regional tourism cooperation is built on the basis of regional cooperation of the parties and the core of distribution is the issues of interest. All parties should work through the construction of norms in the transfer of interests between the parties in order to achieve the overall interest in the rational allocation under the condition of equality, mutual benefit and cooperation.

## **6. Analysis of China-ASEAN Cooperation Tourism Symbiotic Interface.**

The interaction media of the Symbiosis and the two elements of the symbiotic environment is known as the symbiotic interface which is the medium, channel or carrier of transmitting the

physical unit, information and energy between symbiotic units, and is the formation and development basis of the symbiotic relationship. Symbiotic interface unit embodies the symbiotic mechanism of interaction and the inherent formation of the symbiotic model motives. A smooth Symbiotic interface provides channels for flowing and exchanging material, energy and information between the symbiotic units so that symbiotic generating new energy can be continuously processed, and the development of symbiotic system can be promoted. The main symbiotic interface is different during the development of regional tourism cooperation in the different periods of time, including the market system, government support system and social services system.

In fact, China-ASEAN tourism cooperation, at present, is in the growth stage of development. Government, at the development process of the regional tourism cooperation, is playing a leading role, or we can say that regional tourism cooperation is a product of the Government's development strategy. At this period, regional tourism development urgently needs government's strong support for the Government to use its own financial resources, policies, resources to actively promote cooperation in tourism development to stimulate the rapid development of the local economy. So at this stage, the Government will not only serve as the role of macro-manager, but also act as a role of micro-operation, in a specific period, in this way is good for the development of regional cooperation in tourism.

Next, China-ASEAN tourism cooperation will enter a phase of rapid growth. During this period, the tourism cooperation will be an unprecedented pace of development, but also pay attention to the development of extensive changes to the connotation of development, from infrastructure to focus on strengthening the construction of integrated environmental shift, from driving to rely on preferential policies to strengthening its functional changes in the building. On one hand, these changes show that the infrastructure of tourism cooperation is gradually improved; on the other hand, it also shows that the regional tourism cooperation enters a new stage. From the view of the government, as the economy continuously developed, the perfecting of economic system, the functions of growing stage of development do not meet the needs of economic development; the Government should actively change the role of their own, change the past, the "executive" and economy "start" into the economy "macro-control" and "server". The market mechanism plays an important role.

## **7. Performance Analysis of China-ASEAN Symbiotic Cooperation in Tourism.**

We need to go through a series of indicators to measure the level and stage of the China-ASEAN tourism cooperation on the development of the symbiotic system. In the symbiotic system, the symbiosis units are inextricably linked to each other. We should analyze and evaluate the China-ASEAN symbiotic cooperation system in tourism Based on operational principles, on status and the level of science. In building a measure of the indicator system, the basic characteristics and laws should be reflected. First of all, the symbiotic system is an open system, so "system openness" will be used to describe the degree of openness of the system; Secondly, the symbiotic system is a dynamic system, it shows the present and future performance in time, so the "system development level "is used to describe the present state, and " development potential" to describe the future development capacity of the system; Third, cooperation in tourism is a symbiotic system of input-output system, so " development efficiency " can be used to describe the input - output conversion level; the fourth, the symbiotic system, should be maintained and sustained in harmonious development structure, the "degree of co-ordination development" should be used to describe the overall coordination of the system. In this way, when measuring of the state of symbiosis symbiotic systems, standards can be described from the following five aspects:

1) The level of development (f1): description the development state or effect of regional symbiotic system cooperation in tourism.

2) The development of the efficiency (f2): description of economic development capacity of unites in the symbiotic system.

3) Their potential of development (f3): description of the future development of the symbiotic system capacity.

4) System openness (f4): description of a symbiotic system, the degree of openness.

5) The development of coordination degree (f5): description, the status of overall co-ordination of a symbiotic system. Through the description and analysis of the symbiotic system by the five characteristics, the symbiotic zone and the symbiotic state level can be evaluated more comprehensively, that is:  $F = (f1, f2, f3, f4, f5)$ .

China-ASEAN symbiotic Cooperation mechanism in tourism is the protection to sustain the development of ASEAN tourism. Therefore, we must fully take into account the interests of both sides on the basis of a regulation-driven

market mechanism, through the Regional Tourism complementary elements of the movement, in accordance with the principle of comparative advantage, division of labor through economic cooperation and collaboration to achieve in an open competition and innovation in the regional Health and prosperity.

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