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The Policy Coordination of Taichung City Government: The Case of Promotion Office of Low Carbon City

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Abstract

A city has already played the main role in promoting low carbon. At present, as low-carbon policies are promoted in various countries in the world, they are also initiated by cities. In other words, a city as one of the main roles of promoting low-carbon activities is not only a subject of the public sector, but also requires the participation of enterprises, the public or even NGOs in the low-carbon affairs. Based on this background, this paper concentrates on Taichung City, because four "low carbon pilot cities" were selected in Taiwan in 2011, respectively New Taipei City, Taichung City, Tainan City, and Yilan County. Among them, Taichung City is the one with a rather developed scale. Furthermore, from the point of view of a low-carbon city, this paper would review the experiences and practices of foreign cities in promoting to be low-carbon cities. However, whether these developments can also provide Taiwan as references is also one of the concerns in this paper as well. Later, the low-carbon city historical development of Taichung City would be described in this paper, from which the newspaper information and secondary information would be quoted to discuss and analyze what the problems are for Taichung City in promoting to be a low-carbon city at present. At last, the conclusions of the paper would be presented.

Keywords: Low-Carbon; Low-Carbon City; Policy Coordination; Promotion Office; Taichung City

I. Introduction

A city has already played the main role in promoting low carbon. At present, as low-carbon policies are promoted in various countries in the world, they are also initiated by cities. In other words, a city as one of the main roles of promoting low-carbon activities is not only a subject of the public sector, but also requires the participation of enterprises, the public or even NGOs in the low-carbon affairs. Based on this background, this paper concentrates on Taichung City, because four "low carbon pilot cities" were selected in Taiwan in 2011, respectively New Taipei City, Taichung City, Tainan City, and Yilan County. Among them, Taichung City is the one with a rather developed scale. First of all, on December 25, 2010, Taichung County and City were merged to be upgraded to a special municipality, governing 29 administrative districts. Besides, in the aspect of population, Taichung City is provided with such a diversified mode as a densely populated urban area, villages with low population density and aborigine areas, etc. The total area of the City is 2,214.6968 km², with a total number of populations at about 2.69 million. Under the population of about 2.7 million, as Taichung City actively strives to become a city of low carbon, how should it address the promotion of a low-carbon city? The scope of definition of the related policies to a low-carbon city is too extensive, with too many involved aspects. Among which, a low-carbon city is also involved with how to evaluate the performance of low carbon.

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Furthermore, from the point of view of a low-carbon city, this paper would review the experiences and practices of foreign cities in promoting to be low-carbon cities, such as the cities of Germany, Britain, Japan, Korea and Mainland China, etc. It is found in the paper that in various countries of the world, the central governments subsidize local governments in promoting low-carbon affairs, and from which form policies or systems. However, whether these developments can also provide Taiwan as references is also one of the concerns in this paper as well. Later, the low-carbon city historical development of Taichung City would be described in this paper, from which the newspaper information and secondary information would be quoted to discuss and analyze what the problems are for Taichung City in promoting to be a low-carbon city at present. At last, the conclusions of the paper would be presented.

II. Literature Review: Low-Carbon City and Policy Coordination

1. Importance of Policy Coordination

The importance of policy coordination coming from the rise of the great volume of complicated affairs of the public sector is a necessary mean. Therefore, policy coordination would be involved with apolicy objective, a strategy, and a choice of tool, etc. Under the trend of societal progress and complication of administrative affairs, a public sector cannot solely handle the issue of public affairs. The coordination of public sector would inevitably be involved with such factors as private sectors, civilian or non-profit organizations, and the reliance of the participation outside a public sector. Therefore, a collaborative public/private partnership would appear and such a relationship also demonstrates a kind of multilayer coordination partnership. Meanwhile, the internal organization of a public sector also incurs a change; a kind of cross-government, cross-department, and cross-sector coordination relationship would also be gradually formed, reflecting the complexity of the process. From the ambiguity of organization boundary, Frederickson (2005) considers the public administrative boundary would be gradually ambiguous in the future. The formation of cross-governing organization to reduce the uncertainty of a group, a mixture of organization, and a quasi-government organization is an attempt in response and a solution of the boundary issue. Concerning the civil servants besides facing and responding to problems, their attitude would become the key of public service. All public problems finally are local problems, so that the mentality and behavior of the civil servants shall be duly adjusted, and the policy coordination forms shall also become more and more diversified, including, for example, public/private partnership relationship, quasi-government organization, consigned outsourcing, crossorganization coordination mechanism, etc. It can be perceived that the organization of a public sector should rely on other organizations to convey public service and solve problems; the performance would demonstrate to be more important.

In overseas, the studies of policy coordination spans from the study of such problems concerning the crosssector coordination (Adler, 1995), coordination of the central government (Christensen and Lægreid, 2008), collaborative relationship between the central and local governments (Moseley and James, 2008), and the organization coordination of public sector and autonomy, etc. (Lægreid, Verhoest and Jann, 2008), and the comparison of the policy coordination problems between the United States and Canada federal government systems (Bakvis and Brown, 2010). The boundary exchange would often occur when the functions of members across the boundary of an organization; for example, the exchange between the cabinet members and the office members of the White House can be considered as a kind of boundary exchange. On the contrary, if a government is considered as a sector, then the contacts between administrative departments and the congress would become an internal network, and no more a crossover external exchange. In other words, if each of the cabinet, White House office staffs and the President administrative office is considered as one analysis unit, then the communication relationship among the three would also become a boundary exchange (Graber, 2003). In case one affair is involved with the federal government and local government, and concurrently with a private sector, then the hardship in communication cost would be increased. Graber (2003) takes a case of the Love Canal of New York State happened 25 years ago as an example, to explain agas leakage event occurring in a garbage site of dumping wastes in the said State after 20 years of abandonment. During the development of investigation, it was found 19 independent sectors were involved. In the level of state government, 9 departments were involved, respectively as the Department of Health, Department of Environmental Protection, Department of Transportation, Department of Public Housing, Department of Social Service, Department of Bank Management, Department of Insurance, Office of Disaster Prevention and Department of Damage Evaluation. Besides, there were other 7 departments, Environmental Protection Agency of the federal government, Department of Health of Niagara County, local civilian defense sector, police department, fire protection department, Niagara Fall City, and Niagara Fall School District Committee.

In addition, there were such 3 institutes of the private sector as the Red Cross, Federal Charity Federation, and Love Canal Regulatory Commission. The federal government found gas leakage at Love Canal as early as in 1976, yet none agency dared to take over this difficult problem to deal with. Because the coordination cost is extensive, no sole agency would like to undertake it. Later, a project team was established in response to this situation and that is the rise of trans-boundary network administration or governance later (Graber, 2003; Wu, 2013). Scholars Harley et al. (2003) point out while engaging in studies concerning the subject of senior-citizen service, to solve the policy coordination and unification problems, promote the collaborative relationship among social workers, psychiatrists, senior nursing homes, etc. and organizations, it is required to note the flow of information and resources among various agencies; next, it is required to perform relocation of policy, administrative priority, and practice, etc. under the collaborative relationship; the participants in the collaborative relationship are also required to transfer their roles. The concrete strategy shall include the construction of service integration strategy. Use technology as much as possible (laptop, website, and internet) to facilitate communication, to cross the boundary of traditional specialization fields, and allow various collaborative agencies to communicate without leaving their duties (Chu, 2005, 2006). Furthermore, in order to handle such problems as the scope of power, the snatch of clients, and the disclosure of confidential information, scholars recommend develop an umbrella organization, to be organized by partial members of each collaborative agency, able to allow the representatives of different agencies to engagein a teamwork manner to settle a case, somewhat similar to the single-window flow. At last, it is required to establish a formal collaboration and unification flow, perhaps able to avoid eliminating certain agency issues by accident (Harley, 2003: 35-36).

Taking the role of public administration personnel and the cost of agency administrative cost for example, Jong S. Jun (1986) indicates public administration personnel often hold arather narrow point of view by limiting their own role to a fixed level, only fulfilling the missions inside an organization. Junconsiders public administration is facing a fact that affairs exist in a diversified entity and the solution of public affairs should also incur changes. Jun provides an example of the Forestry Department of USA for example in description. The goal and rules of the Forestry Department are both formulated by the central government and various places in the nation can be further divided into hundreds of "district". Therefore, the decision-making right certainly would be scattered and due risk shall be undertaken, because the hook of interest between local forestry administrators and local agencies can hardly be prevented and eradicated. The decision making of a forestry administrator would involve in, for example, forest land administration, grazing right, felling, and forest park, etc. while these affairs or districts are related to local people far more than the Forestry Department or general public. In case the central government controls all decision-making rights, the project promotion would be trapped into a hideous situation which perceivably would lead to low morale of the forestry administrators, and the local people would feel their demands less concerned. In general, the problem of forestry administration involves in such aspects as environmental protection, education, welfare, agriculture, recreation, transportation, forestry industry, and defense works, etc., perhaps the federal government holds more decision-making rights. But what really matter with it is the local governments of various levels (Jun, 1986; Linden, 2002; Sullivan, and Skelcher, 2002).

2. Rise of Low-Carbon Cities

The development of foreign low-carbon cities has a somewhat magnitude, while most countries often mentioned are mainly Germany and Britain in Europe. Besides, concerning such Asian countries for example as Japan, Korea and Mainland China, their cities are often mentioned in terms of the practice of low-carbon cities. The promotion of these countries concerning low-carbon activity mainly deals with a city in unit, serving as the main role of low-carbon promotion. In accordance with Harriet Bulkeley, Vanesa Castan Broto and Gareth Edwards (2012), it is thought concerning the response to low carbon, many cities have started to transfer from the volunteer service to urbanism, as a kind of administration manner dealing mainly with cities. At the beginning, most cities adopt a similar low-carbon practice, yet after the start, diversified practices have been developed. These development modes, however, would be expedient by employing different means in service. At first, in 2007, local governments of Britain mainly chose Manchester, Liz, and Bristol as pilot cities, requesting the Department for the Environment of Britain to allocate budgets, consign carbon trusts and energy saving trusts and local groups to study the low-carbon action projects of the three cities. Obviously, it was for the central government to assist the local governments to propose low carbon projects, provided with the characteristic of expediency.

What is more, for example, Bristol City relies deeply on the subsidy of the central government, with 75% of its annual budget from the central government.³ Besides, Britain can be the said as the earliest one initiating planning and practice among low-carbon cities. Taking London City for example, it further plays a key role in the aspect of low-carbon city construction aspect. In which, "London Climate Change Action Project" establishes many concrete measures and objectives in different actions and projects, endeavoring to solve such problems as green home, commerce, energy efficiency and transportation, etc. (Gupta, 2009; Tu, Yang, and Lee, 2011). Talking about Sweden, Jamil Khan (2013) uses network governance and transfer governance to analyze the Sweden execution experience, showing the performance of network governance is mixed with the connection of policy output and democracy legality. As to Germany, in the aspect of low-carbon city, there is also much performance, mainly in the field of lowcarbon building. Meanwhile, Germany also concerns very much the cooperation between public and private sectors to build low-carbon cities. For example, the use of smart grid and ICT technology to facilitate the cities in transformation already shows considerable results in the lessening and adjustment of climate change, and effective utilization of energy.4 Furthermore, taking Korea for example, Wang (2010) describes the Low-Carbon Green City project of Korea, including the conflict in basic argument, the conflict of participants, for example, such as the conflicts among departments, among departments and cities, and among authorities, for example, the central government under restriction of financial factors cannot provide sufficient fiscal support, etc. What interesting is, Wang also mentions Korea is in lack of a central agency to assist the participant conflict; meanwhile participants are also in lack of communication channels to facilitate collaboration relationship. Besides, the most recent event is theAct of Promoting Low-Carbon City Construction proposed in Japan in 2012. Meanwhile, the accreditation of "low-carbon residence" is a major core of the said Act. At the same time, the compliance of "low-carbon city development guideline" is also provided in Japan.⁵

Besides, Mainland China spares no efforts to promote low-carbon city (He, and Luo. 2010). For example, a 2008 low-carbon pilot city in Shanghai was promoted. In view of the promotion of low-carbon city, what important is Mainland China further constructs an exclusive website "Chinese City Low Carbon Economy Website" http://www.cusdn.org.cn/. Similarly, Yao, Luo, and Zhang (2013) focus on the low-carbon city development of Shenzhen to provide an evaluation index. They consider the target plan of low-carbon construction is provided with such mechanisms as uniqueness, most adequate industry development, development of new technology, development of technical specifications to guide low-carbon city, and establishment of a carbon trade financial market, etc (Su et al., 2013). Meanwhile, Andrew Gouldson, Rory Sullivan & Philip Webber (2012) under the lowcarbon development consider cities of local authority on the contrary become the focus of attention. Except for understanding the context of a city itself, it is further required to overcome difficulties to promote a low-carbon community, etc. since fiscal issue is the one urgent in need to be overcome. Among many aforementioned literatures, the combinations of low-carbon activity demands and incentives are mentioned. Most of the current low-carbon policies are in the mode of a central government in subsidizing local governments. The aforementioned low-carbon city development of various countries contributes much enlightenment to the low-carbon city of Taichung City, for example: package measures, community low-carbon promotion, legislation specifications, participants and context, etc. However, as to Taiwan in terms of goal and policy in the current promotion of low-carbon cities, it is expressed by Shih-Hung Shen, Director of Environmental Protection Administration, Executive Yuan as follows: The Environmental Protection Administration is active in promoting a low-carbon home policy. It is expected concerning the 10-year construction mission of "low-carbon community", "low-carbon city" and "low-carbon living sphere", in the future, each county/city shall complete two low-carbon pilot communities every two years, with total 50 lowcarbon pilot communities all over Taiwan; by 2014, six low-carbon cities will be promoted; by 2020, such four northern, central, southern and eastern low-carbon living spheres shall be completed.6

³Low-carbon life Blog. http://lowestc.blogspot.tw/2008/08/blog-post_7507.html. Visited on 2014/1/20. (In Chinese)This is a website devoted to low-carbon in Britain. The Local carbon network must rely on a central support.

⁴Business Council for Sustainable Development of Taiwan.http://www.bcsd.org.tw/news/717. Visited on2014/1/20.(In Chinese) This website have some conference information of Low-carbon.

⁵Nikkei Energy and Ecology. http://big5.nikkeibp.com.cn/news/eco/2569-20120406.html. Visited on2014/1/19.(In Chinese)This is the website of Japan's low-carbon.

⁶Low Carbon Sustainable Information System Website.

http://lcss.epa.gov.tw/LcssOldData/Default.aspx?Action=8B429E95F7369FD2. Visited on 2014/1/23.(In Chinese)The main website created by the Environmental Protection Agency.

In other words, concerning the connections among such three as "low-carbon community", "low-carbon city" and "low-carbon living sphere", mainly a low-carbon city is built over a low-carbon community and both of them form a low-carbon living sphere, in order to gradually achieve a low-carbon society. Meanwhile, in terms of the national level, low-carbon requirements are not only applicable to individuals, but also to communities and cities. Besides a calculation of the integral import/export situation of a nation, it is also focused on the development of the national low-carbon economy. It can be saida low-carbon requirement should be initiated from an individual environment, further to a low-carbon community, an enterprise, a city, or even a nation as an entire entity. The low-carbon life is a series of process; we can preliminarily divide them into levels of an individual, an organization, and a nation.

III. Description of Case Background: Low-Carbon City Promotion Team of Taichung City Government

1. Goal of Low-Carbon Policy

Taichung City stipulates its vision as a low-carbon city to be "Carbon Free Trouble Free". Meanwhile, in accordance with such six major strengths as geographical location strength, natural condition strength, life quality strength, economic development strength, and education culture strength, five major flag projects and one flag pilotzone (Shueinan Economic Trade Park) exclusively of Taichung City are prepared. Its content includes people's green life, smart traffic, wind-and-light-integrated green buildings, a low-carbon tour, and a full recycle without waste, etc. A low-carbon office mainly is the pusher of the low-carbon policy, even the mechanism to plan for constructing the entire low-carbon city. Taichung City Government Low-Carbon Office exists in this manner. Meanwhile, Low-Carbon City Promotion Team of Taichung City Government is an exclusively responsible organization for the greenhouse gas reduction of this city. In other words, a low-carbon policy would be involved in low-carbon economy, while low-carbon economy refers to the greenhouse gas emitted in an economic system is very little, or almost without emission into the atmosphere. Or, the carbon footprint of an economic system is close to zero. The mode of low-carbon economy is one which applies a low energy consumption, low pollution, and low emission as its foundation. Therefore, any policy conforming to one of the aforementioned three points can be said as a low-carbon policy.

2. Low-Carbon City Promotion Office of Taichung City and its Structure

"Low-Carbon City Promotion Office of Taichung City" was established on November 1, 2011, mainly as an exclusively responsible organization in low-carbon promotion, to effectively integrate the manpower and budget in such fields as energy, building, transportation, and environmental protection, etc., to attain the goal of a comprehensive promotion and establishment of a lateral contact mechanism for various agencies. Besides, the structure of Low-Carbon City Promotion Office is provided with such sections as "Comprehensive Planning and Secretary Section", "Education Publicity and Promotion Section", "Economic Development and Agriculture Section", "Urban Development and Construction Section", and "Transportation Traffic and Tourism Section", etc. There are total 24 members of this office, to assist in conducting the low-carbon affair promotion. One Director is established in charge of the overall promotion and execution of the low-carbon city construction project; besides, one executive secretary is separately provided, while one section chief is also separately provided for each section. The section members are assigned by the related departments to perform functions concurrently, and regularly reside in this office, to assist in promotion and execution of the related low-carbon city promotion affairs and perform staff operation of the Low-Carbon City Promotion Team. In other words, the structure of such an office is provided with the participation of the cross-department members, able to be said to form the foundation of policy coordination.⁸ However, under the policy coordination structure, its mission composition shall be text-formatted. For example, Low-Carbon City Promotion Team of Taichung City Government is an exclusively responsible organization for the greenhouse gas reduction of this city.

⁷ Taichung Low-Carbon CityConstruction Website. http://taichung.sambacode.com/. Visited on 2014/1/10.There are many carbon-rich knowledge, and this website was established by the Taichung City Government. This website describes the construction and development of low-carbon in Taichung City Government.

⁸The same resource comes from the footnote 5.

Its main missions shall be as follows: 1. Review of the vision goal and strategy in carbon reduction. 2. Coordination and integration of carbon reduction affairs of various agencies. 3. Supervision of promoting the carbon reduction related work of various agencies. 4. Compliance with central agencies in promotion of energy saving & carbon reduction policies and coordination of related execution matters. 5. Study & stipulation of carbon reduction home construction related subsidies or incentive regulations. 6. Review of other matters concerning low-carbon city construction and promotion. 7. Compilation and control operation of execution result reports: submission of execution result reports and evaluation operation. 8. Correction and review mechanism of promotion execution results. "Low-Carbon City Promotion Team of Taichung City Government" will plan and promote related low-carbon measures, effectively coordinate and integrate cross-department manpower and budgets, centralize public/private resource input into the low-carbon city construction work, and perform the execution and control operation of related action plans on an overall basis. Concerning the organization structure of Low-Carbon City Promotion Team, except for a convener and a deputy convener, other committee members shall be concurrently acted by the heads of the specified agencies; besides, Low-Carbon City Promotion Office and Advisory Panel is also provided. Members of the Advisory Panel shall be selected and recruited by the convener and composed of 9 to 15 experts/scholars.9

3. Low-Carbon City Execution Process of Taichung City: Current Policy Promotion

In general, four "low carbon pilot cities" were selected in Taiwan in 2011, respectively New Taipei City, Taichung City, Tainan City, and Yilan County. The execution process of low-carbon city of Taichung City

(1) Community Certification

Taichung City Government is also active in processing the "Low-Carbon Community Conformance Certification Specification". Concerning the progress of community certification, its review manner is for the Department of Environmental Protection to establish the Low-Carbon Community Conformance Certification Review Committee, and recruit 2-3 experts/scholars and supervisors for this Department to be committee members. The review task is carried out in two stages: the first stage: convene a Review Committee meeting to engage in document review of the application information; only the ones reviewed to have more than 60 scores can be admitted into the second stage. The second stage: The Review Committee shall execute a second review of low-carbon community conformance through a site investigation. For example, Chang An Fine Art View Building and An Shun Famous Building Community are honored to be awarded as the communities of excellent performance in energy saving and carbon reduction; Li Chuan Community, Shining Caesar, Green Emerald Building are honored to be awarded as the communities of prominent performance in resource reuse, water saving, and power saving aspects, etc.¹⁰

(2) Low-Carbon Bus

The first batch of 10 electric buses of Taichung Citywas on the way on December 16, 2013, serving 55 bus routes. It is anticipated that 5 more buses be further induced by March 2014. This is also the promotion of the generally seen low-carbon bus, as the main force for the low-carbon city promotion at present. Furthermore, in accordance with Mayor Jason Hu: 'Taichung City can reduce one million tons of carbon emission one year. Various countries in the world in order to reduce carbon emission volume signed "Kyoto Protocol". At present, the average carbon emission volume of Kyoto per person each year is about 4.2 tons, while that of Taichung City per person each year is 3.7 tons. It is recommended that UN hold its meeting in Taichung next time, to sign "Taichung Protocol" to substitute "Kyoto Protocol". 11

(3) Taichung City Low-Carbon City Construction White Book

In accordance with the statement of Taichung City Low-Carbon City Construction White Book, "Low-carbon city is a global trend, and also a necessary basis of human beings.

⁹The same resource comes from the footnote 5.For more information, you can refer to this website.

¹⁰Low Carbon Community Knowledge Portal website. http://lcc.fixy.com.tw/node/2458. Visited on 2014/1/21.(In Chinese)There are many examples of low-carbon communities on this website.

¹¹Taichung First Electric Buses on the Road. *The Liberty Times*. http://www.libertytimes.com.tw/2013/new/dec/17/today-center19.htm. Visited on 2014/1/21.(In Chinese)Many cities are promoting low-carbon buses, for example, Taichung City is one of them.

The short-term objective of Taichung City in constructing a low-carbon city (2011-2013) would make its greenhouse gas emission volume to return to the level of 2009 with a further reduction of 10%, in volume reduction of 151.99 megatonmillion tons; the mid-term carbon reduction objective (2015-2020) would make its greenhouse gas emission volume to return to the level of 2009 with a further reduction of 20%, in volume reduction of 322.92 megatonmillion tons, hoping to bring its citizens a "Carbon Free Trouble Free" green living environment." Taichung City Government further establishes a low-carbon promotion center to assist its citizens in saving energy and reducing carbon, by combining architects and such related scholars and experts in air conditioning, electric machinery, environment, ESCO, etc., to organizean energy saving and carbon reduction guidance group. As long as a government agency or a private enterprise files an application, the guidance group would perform a site investigation and energy consumption inspection, and propose proper energy saving and carbon reduction recommendations. The supplication is a low-carbon reduction recommendations.

(4) Self-governance Articles of 2013 Taichung City in Development of Low-Carbon City

"Self-governance Articles of 2013 Taichung City in Development of Low-Carbon City" were already approved in Taichung City Council in 2013 on third and final reading, pending to be implemented after being reported to the central government for approval. In the future, such sites as a community, campus, agency, religious place, hotel & lodging industry, restaurant, food store, shop, hypermarket, department store, and the places announced by the City Government shall comply with low-carbon certification, to facilitate the low-carbon promotion work of the City Government to move up a further level. In view of budget and execution power aspects, it is pointed out by Deputy Mayor Ping-Kun Tsai of Taichung City: "Two major elements in well performing low carbon are budget and decision. In the aspect of budget, the Departments of the City Government shall prepare a budget in accordance with the scope of Low Carbon White Book, to be examined item by item and implemented. In the aspect of central subsidy, the City Government has also made an effort in striving for it. This year, a subsidy of NT\$45 million is obtained, though not meeting the projected goal, yet will not influence on the City Government in its decision of promoting low carbon." 14 In the aspect of Taichung City Council, different political parties express their supports in Self-governance Articles of 2013 Taichung City in Development of Low-Carbon City: "The Selfgovernance Articles of 2013 Taichung City in Development of Low-Carbon City were approved in the City Council on the 25th on third and final reading. One of the key points for the approval through review is, 'from January 1, 2021, within the designated area through public announcement, it is prohibited from driving gasoline-fueled scooters; (the City Government) will also stipulate related incentive regulations for substitution before January 1, 2016.' In fact, the original proposal content is only 'it is prohibited from driving two-cycle scooters', by changing it to be prohibited from driving gasoline-fueled scooters under a more strict standard, the City Government says it will certainly render a great support in the future."15 At first, it is thought to be a good thing, yet it caused protest from the public, also reflecting the opinions of both Taichung City Government and City Council, expressed as follows: "Concerning the decision of Taichung City Council, 'R.O.C. Scooter Party' expressed on Facebook the other day, using such transportation means as scooter/automobile/bike/bus/metro, etc. to satisfy people's 'basic human right in transportation' is the most natural thing in a democratic and constitutional state, and further an option that a government should protect its people to possess. But Taichung City Council/Taichung City Government under the leadership of 'council member Chung Lee of Kuomintang' under the name of environmental protection, approved the articles of 'prohibiting scooters' on third and final reading by setting a precedent in Taiwan, following the practice of Mainland China under despotism, to restrict the people from entering into Taichung City by riding scooters," 16

¹²Taichung City Low-carbon White Paper. http://www.epb.taichung.gov.tw/news/news_detail.asp?id=8790. Visited on 2014/1/21.(In Chinese)

¹³Taichung City Low Carbon Promotion Center.

http://taichung.sambacode.com/post/中市成立低碳推廣中心輔導民眾節能減碳.aspx.Visited on 2014/1/21. (In Chinese)The role of the people is very important, especially in carbon participation. For more details, you can check on this website.

¹⁴Low-carbon office Anniversary.http://www.epochtimes.com/b5/12/10/31/n3718835.htm#ixzz2pcQ2Rd7h. Visited on 2014/1/22. Besides, the following citation italics are as the same footnote 8. (In Chinese)

¹⁵The same resource comes from the footnote 8.

¹⁶The same resource comes from the footnote 8.

In view of this point, council members Chung Lee, Shuei-Pin Hsu, and Chia-Hung Hung et al of Legal Affairs Committee jointly held a reporters' reception with such agencies as the Department of Transportation, Department of Environmental Protection, and Low-Carbon Office, etc., to clarify the "entire misunderstanding" as criticized by the surfers. "Shuei-Pin Hsu points out, the City Council simply hopes to promote electric scooters to reduce gas emission, but not to object gasoline-fueled scooters. Chung Lee expresses, the City Council merely requires the prohibition from riding gasoline-fueled scooters in specific districts but not on an overall basis, nor is it involved in any selfish concern or profit solicitation."17 In the low-carbon community aspect, taking the community empowerment and low-carbon life of Laiming Village of northern district of Taichung City for example, the comments of the village chief are as follows: "Village Chief Mao-Ting Lai also the Board Chairman of Laiming Community Development Association never reserves any effort in promoting the community empowerment, therefore has been active in participating in such subsidy projects as the national environmental protection pilot community project, clean home project, and Taiwan health community six-star project, etc. to initiate the community development. What is more, the village chief is provided with an environmental protection sense, a high intent in promoting energy saving and carbon reduction, in addition to the environmental protection volunteer working team organized by the residents who all form the key roles of this village. Volunteer workers, besides periodically maintaining the street environment, bringing a comfortable environment for residents, also assist in holding diversified activity programs, promoting such education publicity activities as environmental protection and energy saving, etc., to facilitate the residents to keep on learning new knowledge."18 Therefore, it can be said concerning the way of promoting a low-carbon policy, it indeed shows different policy implementation means in response to various situations.

IV. Analysis and Discussion: Current Situation of Low-Carbon City of Taichung City

From the review of the aforementioned literatures and the enactment of low-carbon city, this study deems the part concerning policy coordination requires several points for clarification and discussion:

1. System Incentive

It is required to link to incentives; only starting from the economic development and linking to enterprise niches can low-carbon activities be promoted. Besides, to the public, what is a public incentive? Similarly, to a community, what is the incentive of a low-carbon community? Numerous aforementioned questions have to return to the basic question of a low-carbon city, the compliance of low-carbon system design and system incentive. Concerning the connection between a low-carbon goal and incentive, at present, the low-carbon part still deals mainly with Taichung City Government which plays the major promotion role.

2. Policy Execution

The involvement of a low-carbon policy is very extensive, including the cultivation toward public low-carbon knowledge, community low-carbon certification, and low-carbon bus, etc. In a macro sense, the content of low-carbon policy is extremely extensive, or it may be said ambiguous. The leading reason is the definition of the term low-carbon would influence on its later development. If the term low-carbon is defined in a traditional manner, or in an economic manner, its development means would all be different. The low-carbon policy in promoting a low-carbon bus, a low-carbon community, and the Low-Carbon Self-governance Articles of Taichung City, etc. is considered as one of the low-carbon policies.

3. Fiscal Factor

Taiwan is a state of centralization in authority, while local governments do not have autonomous fiscal powers. The central government budget subsidizes local governments, formulates policies; policies form a system, to activate an imitation effect. At present, concerning the major fiscal sources of cities, most of them come from the central government. However, since the fiscal budget of the central government is limited, therefore, it influences the cities in promoting low-carbon subsidies. If without a fiscal budget it may mean there is no promotion of low-carbon policies. The budget subsidy of Taichung City Government Low-Carbon Office comes from the Environmental Protection Administration of Executive Yuan. The foreign cities mentioned in this paper also mainly accept the subsidies from their central governments.

¹⁷The same resource comes from the footnote 8.

¹⁸Low-carbon model community BLOG. http://ecolife.epa.gov.tw/blog/post/1619527. Visited on 2014/1/18. (In Chinese)This website provides examples of the development of low-carbon communities in Taichung City.

4. Communication of Participants

Concerning the conflict of participants, and the recognition of low carbon, such as the interaction between the central government and a local government, and between a local government and the public, etc., it would be related to the aforementioned first paragraph. As the definition of low-carbon is hard, therefore, considerably much consensus shall be established. During the process of establishing the consensus, it is likely to incur conflicts, such as the example of Korea. At present, concerning the low-carbon participation, such participants as Taichung City Government, Taichung City Council (including different political parties), and the public, etc. are the major parties.

5. Technical Innovation and Evaluation Method

This point is very interesting, and basically a low-carbon city mentions this point. But as to what level the technical innovation is required there is no clear standard. Besides, concerning the evaluation of a low-carbon result, it is indeed the most troublesome issue a low-carbon city encounters at present. Because the low-carbon evaluation is involved in both scientific part and the evaluation criteria, and how to evaluate, etc. How Taichung City Government would evaluate its low-carbon performance, and the evaluation method and mode it adopts would all be related to technology.

6. Whether the Council Supports

This point is of prime importance. The background of the council members differs from one to another while some are of the ruling party while the others are of the opposition parties. Both are indeed related. Concerning the current political ecology of Taichung City Council, there are total 27 seats of Kuomintang, 24 seats of Democratic Progressive Party (DPP), 10 seats do not have party memberships, 1 seat of People First Party, and 1 seat of Taiwan Solidarity Union, in a total of 63 seats (the start and end of tenure are December 25, 2010 – December 24, 2014). At present, the ruling party of Taichung City Government is Kuomintang, yet the members of Kuomintang are not the majority that any proposal is critical about the promotion of a low-carbon city. At present, the council environment of Taichung City is rather stable. For Taichung City Government, it is favorable to the promotion of low-carbon policies. For example, the Self-governance Articles of Low-Carbonare a good example.

V. Conclusion

A low-carbon city is not a slogan, and not merely the responsibility of the government. On the contrary, besides the government, an enterprise, the public or even NGOs are also obliged to participate in low-carbon affairs. The most important thing is the imagination in low-carbon affairs and whether the participants can communicate mutually. Meanwhile, in the case analysis of Low-Carbon City Promotion Team of Taichung City Government, it is known from this paper about such related matters as its functional operation and performance, etc., including environmental protection volunteer workers, a community development association, an environmental protection group, etc., and the cultivation of low-carbon seed teachers in assisting to promote community low-carbon guidance, etc. Furthermore, it also shows the related low-carbon measures indeed require an effective coordination to integrate cross-department manpower and budget. The induced resources of the private sector shall also be input into a lowcarbon city, and process the execution control operation concerning the action plans. Both the vertical and horizontal contacts of Low-Carbon City Promotion Team of Taichung City Government lie in the missions and functions of the said Team, also conforming to the essence of policy coordination. Besides, such problems mentioned in this paper as, for example, system incentive, policy execution, fiscal factor, communication of participants, technical innovation and evaluation method, and whether the council supports, etc. are all related to the low-carbon goal or policies. Among the six items, system incentive, fiscal factor, and whether the council supports account for the most important ones. A low-carbon city is not only a sole affair of the central government nor the affair of a local government, but the affair to be faced by all participants of both the government and the society. Similarly, the inclusion of a lowcarbon city is varying, from the micro one as the change of personal laundry practice to the macro one as the reduction in carbon emission of the entire city, and the construction of a carbon trade market can be said to be related to a low-carbon city. What is more, for a low-carbon city, besides the preparation of a low-carbon goal, the rest matters are no more than the execution and realization of policy, and at last how to evaluate the low-carbon goal and its standard. However, no matter whichever method mentioned above, its means in application and policy means would also change due to the difference in goal.

It is considered in this paper that there is yet a long way to go for a low-carbon city in Taiwan, all depending on the attitude of Taichung City Government.

References

Adler, Paul S. (1995). "Interdepartmental Interdependence and Coordination: The Case of the Design/ManufacturingInterface." Organization Science 6(2): 147-167.

Bakvis, Herman and Douglas Brown. (2010). "Policy Coordination in Federal Systems: Comparing Intergovernmental Processes and Outcomes in Canada and the United States." The Journal of Federalism 40(3): 484-507

Bulkeley, Harriet ,VanesaCastan Broto, and Gareth Edwards. (2012). "Bringing Climate Change to the City: Cowards LowCarbon Urbanism?." Local Environment 17(5): 545–551.

Chang, li-ju, and Lin-Sen Chou. (2010a). "Benefit assessment of low-carbon urban planning."

Taiwan Green Productivity FoundationNewsletter 2-5. (In Chinese)

Chang, Ii-ju, and Lin-Sen Chou. (2010b). "Benefit assessment of low-carbon urban planning." Taiwan Green Productivity Foundation Newsletter 6-8. (In Chinese)

Christensen, Tom, and Per Lægreid, (2008). "The Challenge of Coordination in Central GovernmentOrganizations: The Norwegian Case." Public Organization Review8: 97-116.

Chu, Cheng- Ming. (2005). "Performance Measurement in Collaboration of Policy Network: A Theory Perspective." Journal of Public Administration, 17: 117-162. (In Chinese)

Chu, Cheng- Ming. (2006). "The Study of Intergovernmental Mechanism for Policy Coordination." The Chinese Journal of Administration, 77: 133-162. (In Chinese)

Du, peng-fei, yong-sen yang, wang-feng Ii. (2010). "Discussion of Low-Carbon Eco-City Planning and Township Case" Circular economy and carbon reduction. 209-222. (In Chinese)

Frederickson, David G., and H. George Frederickson. (2006). Measuring the Performance of the Hollow State. Washington, D. C.: Georgetown University Press.

Frederickson, H.George. (2005). Public Administration With Attitude. Washington, D. C.: American Society for Public Administration.

Graber, Doris A. (2003). The Power of Communication: Managing Information in Public Organizations. Washington, D.C.: Congressional Quarterly.

Gouldson, Andrew, Rory Sullivan, and Philip Webber. (2012). "Funding Low Carbon Cities: Mapping the Risks and Opportunities." Centre for Climate Change Economics and Policy Working Paper No. 113.

Gupta, Rajat. (2009). "Moving towards Low-Carbon Buildings and Cities: Experiences from Oxford, UK." International Journal of Low-Carbon Technologies4: 159–168.

Harley, Debra A., Donnell, Chandra, Rainey, Jo Anne. (2003). "Interagency Collaboration: Reinforcing Professional Bridges to Serve Aging Populations with Multiple Service Needs." Journal of Rehabilitation 69(2):22~32.

Jiahua, Pan, Zhuang Guiyang, Zheng Yan, Zhu Shouxian, and XieQianyi. (2010). "The Concept of Low-carbon Economy and Evaluation Methodology of Low Carbon City: Case Study of Jilin City." Research Center of Urban Development and Environment, CASS, Beijing.

Jun, Jong S. (1986). Public Administration: Design and Problem Solving. New York: Macmilliam.

Khan, Jamil. (2013). "What Role for Network Governance in Urban Low Carbon Transitions?." Journal of Cleaner Production50: 133-139.

Lægreid Per, Koen Verhoest, and Werner Jann, (2008). "The Governance, Autonomy and Coordinationof Public Sector Organizations." Public Organization Review8: 93-96.

Linden, Russell M. (2002). Working Across Boundaries: Making Collaboration Work in Government and Nonprofit Organizations. San Francisco, CA: Jossey-Bass.

He, Meimei, and Hong Luo. (2010). "Low-Carbon Urban Planning from an Ecosystem Perspective." Chinese Research Academy of Environmental Sciences, China: Beijing.

Su, Meirong, Ronghua Li, Weiwei Lu, Chen Chen, Bin Chen, and Zhifeng Yang. (2013). "Evaluation of a Low-Carbon City: Method and Application." Entropy15: 1171-1185.

Sullivan, Helen, and Chris Skelcher. (2002). Working Across Boundaries: Collaboration in Public Services. New York: Palgrave.

Wang, Kwang-ik. (2011). "A Low-Carbon Green City Project in Korea." KRIHS (Korea Research Institute for Human Settlement).

Wu, Eing-Ming. (2013). "Re-thinking Urban Governance and Urbanomics—Value Creation of the 2013 Asia Pacific Cities Summit." City Development 15: 8-27. (In Chinese)

Yao, Dan, Jing Luo, and Mu Zhang. (2013). "Research on Low-Carbon City Construction and Development Strategy—A Case Study of Shenzhen." Low Carbon Economy 4(2): 63-70.

Zeppel, Heather. (2013). "Carbon Management by Queensland Local Councils." Journal of Corporate Citizenship 49: 117-136.

Website Information

Business Council for Sustainable Development of Taiwan. http://www.bcsd.org.tw/news/717. Visited on 2014/1/20.(In Chinese)

Low-carbon life Blog. http://lowestc.blogspot.tw/2008/08/blog-post_7507.html. Visited 2014/1/20.(In Chinese) Low Carbon Sustainable Information System Website.

http://lcss.epa.gov.tw/LcssOldData/Default.aspx?Action=8B429E95F7369FD2. Visited on 2014/1/23. (In Chinese)

Low Carbon Community Knowledge Portal website. http://lcc.fixy.com.tw/node/2458. Visited on 2014/1/21. (In Chinese)

Low-carbon office Anniversary. http://www.epochtimes.com/b5/12/10/31/n3718835.htm#ixzz2pcQ2Rd7h. Visited on 2014/1/22. (In Chinese)

Low-carbon model community BLOG. http://ecolife.epa.gov.tw/blog/post/1619527. Visited on 2014/1/18.(In Chinese)

Nikkei Energy and Ecology. http://big5.nikkeibp.com.cn/news/eco/2569-20120406.html. Visited 2014/1/19.(In Chinese)

Taichung First Electric Buses on the Road. The Liberty Times.

http://www.libertytimes.com.tw/2013/new/dec/17/today-center19.htm. Visited on 2014/1/21. (In Chinese)

Taichung City Low-carbon White Paper. http://www.epb.taichung.gov.tw/news/news_detail.asp?id=8790. Visited on 2014/1/21. (In Chinese)

Taichung Low-Carbon CityConstruction Website. http://taichung.sambacode.com/. Visited on 2014/1/10. (In Chinese)

Taichung City Low Carbon Promotion Center.

http://taichung.sambacode.com/post/中市成立低碳推廣中心輔導民眾節能減碳.aspx Visited on 2014/1/21. (In Chinese)