

Formal Rules and Their Informal Operation:

An Empirical Analysis of Energy Conservation and Pollutant Emission

Control Targets of China's 11th Five-Year Plan

Yaqin Song

The Chinese government has been promulgating the Five-Year Plan (FYP) for economic and social development every five years since 1953. Central planning, which used to dominate the economic and social life of the general public in China for nearly 30 years since 1949, has been regarded as the predominant character of socialism. Since China launched the Reform and Opening Policy in 1978, the role of planning has been converted from micro-control of individual enterprises to macroeconomic management. Meanwhile, with consciousness of social justice increasingly aroused, issues of environment, natural resources, and social welfare, take more words than ever in the recently promulgated 11th FYP which was approved by the National People's Congress (NPC) on March 14, 2006.¹

Compared with its predecessors, the 11th FYP attracts much more attention in terms of the input of intelligent, financial and social resources as well as widely extended public participation.² It is the first time that a distinction between binding targets and nonbinding targets exists. Targets concerning economic development, such as GDP growth rate, are categorized as nonbinding targets while those concerning social and environmental development are categorized as binding targets, such as population control, energy conservation, environmental protection, social security, medical services, etc. The increasing significance of targets concerning social and environmental development and the relatively decreasing emphasis on economic growth targets underline the determination of the Hu Jintao administration to change the role of Chinese government from a "development-oriented government" to a "welfare-oriented government".

Despite the enormous resources devoted and the introduction of new concepts and planning approaches, the actual effect of the plan, however, is at question. As shown by the statistical review from National Bureau of Statistics (NBS), during 2006, the first year of the 11th five-year term, all the 31 provinces overran the target of GDP growth rate, while few of them

Yaqin Song is a doctoral candidate in public policy and management of Tsinghua University, Beijing, China. From Sept., 2007 to Aug., 2008, she was a visiting scholar at George Washington University.

¹ "The Outline of The Eleventh Five-Year Plan For National Economic and Social Development of the People's Republic of China;" the Official Web Portal of China's National Development and Reform Commission (NDRC), 1 Aug 2008; http://en.ndrc.gov.cn/hot/t20060529_71334.htm

² "Public opinion sought on 5-year plan in Shenzhen;" Chinese Government's Official Web Portal, 14 March, 2006; http://english.gov.cn/2006-03/14/content_226646.htm

achieved the targets of major pollutant reduction and energy conservation.³ What is worse, during the first quarter of 2007, the growth rate of China's heavy industry was accelerated, among which the six most energy consuming industries grew at an average rate of 20.6%, much higher than the average industry growth rate, obviously adding more trouble to realize the targets of environment protection and energy conservation. What is wrong with the planning system so that the binding targets fail at the first step?

This research will focus on the targets of energy conservation (energy consumption per unit of GDP) and reduction of total discharge of major pollutants (*COD* and *SO₂*) and then explore the plan-making process and plan-implementing process. Based on the theory of informal rules, it is argued that, lack of institutional guarantee of the formal rules regulating central-local governmental relationships is a key factor contributing to the failure of the planning system. In the plan-making process, the discretion authorized to local governments by the formal rules has been curtailed informally. As a result, local governments cannot express their real will in the plan-making process. In the plan-implementing process, the target responsibility mechanism which seemingly is imposed on local governments by the central government more responsibility fails to stand firmly on an expectable basis of surveillance. It is concluded that the planning system per se with internal conflicts and disorders results in the "plan failure".

Analyzing Framework and Target Choosing

1. Analyzing Framework

To portray the whole planning system, a matrix framework crossed by two pairs of counter-concepts is applied, one is "policy making vs. policy implementation", and the other is "formal rules vs. informal rules".

Policy stage perspective is a widely used conceptual framework in the field of policy process research, in which policy process is split into a series of stages, including "the manner in which problems get conceptualized and brought to the government for solution; governmental institutions formulate alternatives and select policy solutions; and those solutions get implemented, evaluated and revised".⁴ Among the above stages, policy forming and policy implementing matter to this research and they are detailed respectively as the plan making and plan implementing.

The distinction between formal rules and informal rules is a powerful instrument to look deeply into the real political institution and policy process. In the field of political science, formal rules are defined as the political institution or organizational structure confined by written laws while informal rules are those practical or implied "rules of game" followed by the real

³ According to the communiqué released by NBS, emission of *COD* and *SO₂* rises by 1.2% and by 1.8% respectively; energy consumption per unit of GDP falls by 1.23%, still a long way to reach the target set down in the FYP.

⁴ Paul A. Sabatier, *Theories of the Policy Process*, Westview Press, 1999, p.3.

players in the political arena. In this research, they are detailed as rules in words and rules in practice, respectively.

Chart 1. Framework of the Paper

	Plan Making	Plan Implementing
Formal Rules	Bottom-up Negotiation	Restrict Responsibility
Informal Rules	Top-down Distribution	Uncertain Responsibility

2. Target Choosing

Three targets, GDP growth rate, energy conservation and discharge reduction of major pollutant, are signalized out of twenty-two targets listed in the 11th FYP. The reason has three folds. (1) The target of major pollutant reduction is the only one unrealized during the term of the 10th FYP⁵. (2) Targets of energy conservation and major pollutant reduction are among the binding ones which indicate the transformation of governmental function. (3) Significant conflict between energy and environment targets and GDP growth target to some extent illustrates the conflict of interest between central government and local governments. Without a radical change of the industry developing model and path, an accelerated growing GDP can never bring along less pollutant emission or energy consumption. As rational players in the political arena, central government that values a long term regime and social stability tends to pursue a sustainable strategy while local governments who face directly daily expenditure pressure tend to pursue the maximum of local revenue. Bringing these two groups of targets together and contrasting them is a proper avenue to probe the central-local relationship in terms of the planning system.

Plan Making Process: Top-down or Bottom-up?

1. Formal rules regulating plan making process

No legislation exists to date to rule on the substance and procedure of plan making in terms of national economic and social development. The State Council has been in charge of issuing administrative measures indicating the general principles and basic requirements of a specific plan making until the 10th FYP, e.g. “Opinions on Planning Making Approach and Procedures of the 10th FYP” (No. 88 [1999] issued by the General Office of the State Council). During the period of making the 11th FYP, similar administrative measures are issued by the State Council, i.e. “Opinions of the State Council on Enhancing the Procedure of Making the Plan of National Economic and Social Development” (No.33 [2005] issued by the State Council).⁶ This circular, different from its predecessors, tends to regulate FYP making as a whole instead of concentrating on a specific FYP making process. So it is proper to regard it as the formal rule regulating the process of making the FYPs before any other legislation or

⁵ It is required by the 10th FYP that discharge of COD and SO₂ be reduced by 10% respectively. At the end of the term, however, discharge of SO₂ increased dramatically by 27% in 2005 comparing with in 2000 while discharge of COD increased by 5% in 2005 comparing with in 2004.

⁶ http://www.gov.cn/zwqk/2005-10/26/content_84417.htm

administrative regulation comes out.

According to Circular 33, the procedures of FYP making at the provincial level are as follows.

(1) Provincial development and reform commission (former planning commission) together with provincial bureaus concerned draw up a preliminary draft of the plan;

(2) Provincial development and reform commission sends the draft to the National Development and Reform Commission (NDRC), provincial development and reform commission in adjacent provinces, and departments concerned in the State Council, respectively, to make sure that the provincial plan has no conflict with the national plan, provincial plans in adjacent provinces and national special plans;

(3) Provincial development and reform commission should solicit and accept suggestions from special committees in provincial People's Congress and People's Political Consultative Conference;

(4) Provincial development and reform commission submits the plan to the provincial government for examination;

(5) Provincial government submits the plan protocol to provincial People's Congress for deliberation, approval and promulgation.

It is explicitly shown that, provincial organs including both government and People's Congress authorized by Circular 33 play key roles in provincial plan-making process while the central government is the main coordinator ensuring that the provincial plan is consistent with the national plan, with departmental plans, and with each other. Such an institutional arrangement gives the provincial government proper space for discretion, allowing them to choose development targets consistent with their own local conditions. Meanwhile, necessary control power is kept by the central government to adjust provincial targets to keep provincial governments marching along the lines of the comprehensive plan. Seemingly, this is a province-centered bottom-up approach to planning-making.

2. Informal rules followed by plan making in Practice

A further exploration of the real process of plan-making concerning the energy conservation target and major pollutant emission reduction target overwhelms the conclusion drawn above that plan making follows a bottom-up approach. Actually, the rules in word are just part or even a beginning of rules in deed.

In China, the annual meeting of provincial People's Congress is held between January and March every year, earlier than that of National People's Congress held in March, which means that the FYPs at the provincial level should be promulgated earlier than the national FYP. Since the national FYP underlines a macro perspective of the central government, it is hardly a

simple accumulation of provincial targets. As a result, the national targets might not turn out to be the sum of provincial targets. Take the energy conservation target (ECT) as an example, a sum of ECTs at the provincial level can never reach the national target which requires a 20% reduction of energy consumption per unit of GDP in the following five years. (“Initial Targets” in Table 1) The situation of major pollutant discharge reduction (MPDR) is even more disordered. The national target requires a 10% reduction in MPDR in the next 5 years. Data bracketed in Table 2 shows that only 19 out of 31 provinces propose their own MPDRs, among which only 8 provinces propose MPDRs higher than the national target.

Table 1 Change on Provincial Targets Concerning Energy Consumption Per Unit of GDP

Province	Reduction of Energy Consumption per Unit of GDP (%)		Province	Reduction of Energy Consumption per Unit of GDP (%)		Province	Reduction of Energy Consumption per Unit of GDP (%)	
	initial	adjusted		initial	adjusted		initial	adjusted
Hainan	-7.5	12	Hebei	20	20	Shandong	22	22
Guangxi	10	15	Liaoning	20	20	Shanxi	25	25
Qinghai	10	17	Heilongjiang	20	20	InnerM	25	25
Kunming	12	17	Shanghai	20	20	Jilin	30	30
Guangdong	13	16	Jiangsu	20	20	4 provinces		
Tibet	13	12	Jiangxi	20	20			
Beijing	15	20	Henan	20	20			
Tianjin	15	20	Hubei	20	20			
Zhejiang	15	20	Hunan	20	20			
Ningxia	15	20	Chongqing	20	20			
Shaanxi	19	20	Sichuan	20	20			
Fujian	N/A	16	Gansu	20	20			
12 provinces			Xinjiang	20	20			
			Anhui	20	20			
			Guizhou	20	20			
			15 provinces					

In accordance with Circular 33, provincial targets should come into effect after approved by the provincial People’s Congress. It is far away from the reality, however. During August and September, 2006, the State Council rearranges ECTs and MPDRs at the provincial level respectively through two administrative circulars. “Reply of the State Council Concerning the Plan Controlling Discharge of Major Pollutant” (No. 70 [2006] issued by the State Council) authorizes State Environment Protection Agency (SEPA) and NDRC together to redistribute

MPDRs among provinces. The following factors are required to be taken into consideration: (1) the national target; (2) local conditions, i.e. environmental quality, environmental capability, emission basis, economic development level, and reduction capability; (3) requirement of special plans; (4) regional diversity among Eastern, Middle, and Western China. Detailed targets redistributed are shown in Table 2. “Reply of the State Council Concerning the Plan Reducing Energy Consumption per Unit of GDP among Areas during the 11th FYP term” (No. 94 [2006] issued by the State Council) authorizes NDRC to redistribute PECTs among provinces, following the criteria that, (1) targets equal to and above 20% should be confirmed; (2) targets under 20% should be adjusted according to local economic development level, industry structure, gross energy consumption, energy consumption efficiency, energy self-supply capability; (3) national target must be guaranteed. Detailed targets redistributed are listed in Column of “adjusted targets” in Table 1.

A series of questions is put forward in terms of central-local relationship in the plan making process. To what extent does the central government take into account the wills of provincial governments? What is the role of the central government in the plan-making process, a coordinator merely or a mandator? A comparison below between targets proposed by provinces themselves and those distributed by the central government will give one probable answer to these questions.

Data in Table 1 show how much the provincial targets of energy conservation have been changed. For each province, the first number is the percentage of energy consumption reduction per unit of GDP approved in the provincial FYP, while the last number is the target adjusted by Circular 94. Several observations can be found, (1) the mode of provincial targets is 20% (15 out of 31 provinces); (2) all the targets above and equal to 20% have been maintained by the central government; (3) all the targets below 20% have been increased by the central government, with the only exception of Tibet (from 13% down to 12%).

How can these observations be properly explained? Although the National FYP has not yet come into birth during the period that provincial FYPs are being drafted, the Central Committee of China Communist Party (CCP) has promulgated “Suggestions by Central Committee of CCP Concerning Constituting the 11th FYP of National Economic and Social Development” (“Suggestions”) which explicitly requires a 20% reduction of energy consumption per unit of GDP as the target. This is why 15 out of 31 provinces choose 20% as their targets. It can be argued that the target of 20% reduction in those 15 provinces’ FYP reflects the obedience to the central government instead of provinces’ own wills. As to the targets higher than 20% advanced by 4 provinces, it can be argued that these targets mirror their own considerations. It is no wonder that these targets are confirmed by the central government since they respond affirmatively to the central government’s requirement. As to the 12 provinces whose targets are below 20%, the situation is much more complicated. Among them, we can see the developed areas such as Guangdong, Beijing, Tianjin and Zhejiang, the backward areas such as Hainan,

Table 2 Change on Provincial Targets Concerning Major Pollutant (SO₂ and COD) Discharge Reduction

Province	SO ₂ Reduction (%) /Control Amount (10000 ton)	COD Reduction (%) /Control Amount (10000 ton)	Reduction of Major Pollutant (%)	Province	SO ₂ Reduction (%) /Control Amount (10000 ton)	COD Reduction (%) /Control Amount (10000 ton)	Reduction of Major Pollutant (%)
Hainan	0	0		Chongqing	11.9	11.2	
Tibet	0	0		Sichuan	11.9 (2.9)	5 (9.6)	
Xinjiang	0	0		Liaoning	12	12.9	(5)
Qinghai	0	0		Shaanxi	12	10	(5)
Gansu	0	7.7	(9.5)	Shanxi	14	13.2	
Heilongjiang	2	10.3	(10)	Henan	14	10.8	(10)
Inner Mongolia	3.8	6.7		Hebei	15	15.1	(15)
Anhui	4	6.5	(5)	Zhejiang	15(13)	15.1(7)	
Yunnan	4 (-1)	4.9 (6)		Guangdong	15	15	(10)
Jilin	4.7/36.4 (34)	10.3/40.7 (34.5)		Guizhou	15	7.1	
Jiangxi	7	5		Jiangsu	18	15.1 (5)	(5)
Hubei	7.8	5	0	Shandong	20	14.9	(10)
Fujian	8	4.8		Beijing	20.4	14.7	
Hunan	9	10.1	(10)	Shanghai	25.9 (35)	14.8	
Ningxia	9.3	14.7	(5)				
Tianjin	9.4/24 (24)	9.6					
Guangxi	9.9	12.1					

Guangxi, Qinghai, Yunnan, Tibet, Ningxia, and also those provinces at the middle level such as Shaanxi and Fujian. Different considerations are behind different decisions. For economically advanced provinces, less progress of reduction can be achieved since the weight of high energy consumption industry is not as great as before. For least developing areas, there are two possible reasons. One reason is that the current energy consumption level is very low because the industry does not overwhelm agriculture; the other is that a strong desire of development requires rapid growth of industry which will result in a high increase in energy consumption. As to the two middle level provinces, it is hard to speculate their considerations under common sense. Generally speaking, the targets proposed by these “laggards” at least reflect their practical and realistic attitude. However, the central government cannot bear these lagging targets or the nullification of the national targets. As a result, all the provincial targets adjusted by the central government are nothing but the reflection of its own will.

The situation of targets concerning discharge reduction of major pollutant is even more complicated. (Table 2). “Suggestions” does not raise any point on the targets of environmental

protection in the quantitative way, so provincial FYPs express their targets on major pollutant discharge reduction in diverse ways. 19 of 31 provinces write quantitative targets in their FYPs which are listed in the brackets of Table 3. For these provinces, three factors are taken into account when proposing their targets: (1) the target of 10% advanced in the last 10th National FYP; (2) the level of local economic development and the expectation of economic development in the next five years; (3) the extent to which the province achieved its target in the last 10th FYP. Comparing with the target on energy conservation, this target on major pollutant discharge reduction is closer to the real will of provinces. The analysis of the adjusted targets shows that, (1) only 3 provinces (Anhui, Tianjin, Hebei) maintain their original targets; (2) 5 provinces (Gansu, Heilongjiang, Jilin, Hunan, Shanghai) get their original targets reduced; (3) 9 provinces (Hubei, Ningxia, Liaoning, Shaanxi, Hunan, Henan, Zhejiang, Guangdong, Jiangsu, Shandong) get their original targets increased; (4) the other 2 provinces (Yunnan, Sichuan) get one of their targets increased and the other reduced. The disperse distribution of the adjusted targets implies that the central government takes little consideration of the will of provincial governments when redistributing the targets concerning major pollutant discharge reduction. As mentioned in Circular 70, the guiding criterion is to “give different treatment to Eastern, Middle and Western Areas respectively”.

An empirical research on the change of the ECT and MPDR shows that, in the real process of plan-making, the local-government-centered, bottom-up approach formally established by Circular 33 has actually been replaced by a central-government-centered, top-down approach. A series of institutional problems will arise accordingly. First, the informal operation of formal institutions nullifies provincial governments' expectation of formal rules. Provinces telling the truth get no praise but are regarded as lagging actors. Such a mechanism will encourage provincial governments to make targets as close to central government's expectation as possible in the long time gaming. Second, the target of the central government suffers the risk of failure to be implemented since it is not established on a firm basis. Third, without real participation of provinces in the planning process, counterwork at the provincial level can be expected in the plan implementing process.

Plan Implementing: the Soft Power of Target Responsibility Mechanism.

It is through the Target Responsibility Mechanism that targets are implemented and supervised. SEPA and NDRC, representing the State Council, sign agreements of target responsibility with provincial governments concerning environmental protection and energy conservation. Competition of those targets is added to the evaluating criteria of government performance of provincial governments. Agreements between the superior government and the inferior government are signed in order that the targets are disassembled all the way down to local governments. Target responsibility mechanism has been playing an important role in China's government administration especially in the period of the planned economy. Following a three-step model including plan making, targets disassembling, and performance evaluating, this approach is widely used in the policy field of family planning, foreign investment attracting and

so on. The advantage of this approach is obvious that the promotion and punishment based on the completion of targets is an effective incentive to push local government officials to realize governmental functions. The disadvantage, however, cannot be ignored. When competing for political promotion, local officials tend to turn a blind eye to those “win-win” opportunities of regional cooperation, and might even engage in the “down to the bottom” competition in order to attract foreign investment. In the situation of information asymmetry, local governments enjoy a huge vacuum to manipulate information, allowing positive news to go up to superior government but burying negative news within their own jurisdiction. What is worth, local governments might infringe on legitimate rights and break laws to fulfill the targets. How can we understand the rules governing the target responsibility system?

1. Formal Rules Concerning Plan Implementing.

The legal effect of targets and the plan comes from the plan itself. It is written in the 11th FYP that, “Binding targets in this plan has legal effect.” Furthermore, the State Council’s implementing measures of the 11th FYP (No. 29 [2006] issued by the State Council) identify in detail the responsible departments, the criteria of targets disassembling, information disclosure procedures and the evaluating approach. Some scholars argue according to the above rules that the binding targets in the 11th FYP have sanction effect on government and failure to complete the targets is breach of law.⁷ Such opinions raise a question. Does the target in the 11th FYP have such a hard power?

2. Practical Force of the Target Responsibility System.

Three perspectives can be introduced to analyze the practical force of the target responsibility mechanism; time, hierarchy and people.

Firstly, the power of the target responsibility mechanism is obscure in terms of time. In China, the term of the FYP is not consistent with the term of the administration. For example, the 10th FYP (2001~2005) is between the 9th Administration (1998~2003) and the 10th Administration (2003~2007); the 11th FYP (2006~2010) sits between the 10th Administration (2003~2007) and the 11th Administration (2008~2013). That means, one administration is making plan and targets for its successive administration. It is questionable which administration should be blamed if the targets fail to be realized.

Secondly, the power of the target responsibility mechanism is obscure in terms of hierarchy. As aforementioned, the targets have been disassembled from the central government down to the basic local government. The question is whether the superior government should take responsibility if inferior government fails to reach the requirement of the targets. If not, that means only the basic local government is the responsible entity; if so, how can central

⁷ Hao Tiejuan, “Do China’s Plan for National Economic and Social Development Have Legal Effect?”, Seminar on Legalization of China’s Central Local Relationship, Beijing, 6 Jan, 2007, pp. 135-140.

government take responsibility as a whole?

Lastly, the power of the target responsibility mechanism is obscure in terms of the liability of individual officials. If the targets fail to be realized, should the official take the personal responsibility or the governmental entity take the collective responsibility?

None of the above questions can gain any answer in accordance with the current legal framework and administrative system in China. Incomplete responsibility system provides opportunities for local officials to take strategic actions. Local governments confront different targets simultaneously among which targets concerning energy conservation and major pollutant control are in conflict with the GDP growth target under the current statistical system. On one hand, local governments need to strictly control the scale of new projects to reduce energy consumption and protect the environment; on the other hand, local governments need to spend a large amount of money reconstructing the current projects of high energy consumption or pollution. Facing the strong incentive of economic development and even survival, the ambiguous target responsibility system does have a long way to go to match the legal power in words.

Conclusion and Policy Implications

An empirical research on the making and implementing process of the targets concerning energy conservation and pollution control in China's 11th FYP shows that, (1) the target making is a central-government-centered top-down process, in which provincial governments have little space to express their real considerations based on the formal rules; (2) the target implementing is a process in which the pressure is conducted down to the bottom, level by level, along the administrative hierarchy through the target responsibility mechanism bearing no practical legal effect. The planning system concerning national economic and social development is still standing out of the legal system. Plan failure is partly resulted from the above two factors.

As to policy implications, two suggestions are proposed.

The first suggestion falls on the planning system itself. Since the plan of national economic and social development is taking and will take a significant position in China's political, economic and social management, it is necessary to legalize the planning system. Using the legal way to regulate the planning process means much more than legalizing the current practice. It is crucial to identify the central-local governmental relationship in the planning making process in which local governments should give more voice to their feelings. What is more, a functional coordination mechanism needs to be established to deal with conflicts between central targets and provincial targets. Finally, the planning approach should be improved per se: (1) a scientific and democratic reasoning should be attached to the targets; (2) central government should make sure that local governments get resources allocated together with their responsibilities; (3) a more transparent and practical responsibility system should be

established.

The second suggestion is about the way of promoting China's sustainable development. Sustainable development cannot solely depend on planning measures or even on administrative measures. Resisting force against change embedded in a bureaucratic system will distort exogenous institutional development. When the idea of "governance" has been accepted as global consensus, more and more attention on sustainable development should be paid to an economic approach, legal measures and the energetic civil society.