

## **Challenging the ‘public versus private’ dichotomy of environmental governance – lessons learned from the Chinese handling of the international clean development mechanism (CDM)**

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### **I. Introduction**

The debate on a post-2012 Kyoto regime depends to a large extent on the question of how to include developing countries into the global endeavor to cut greenhouse gas (GHG) emissions. The use of the Clean Development Mechanism (CDM) has been a first step to raise revenues and capacity for GHG emission reductions in developing countries. Demands for a more stringent inclusion of developing countries in the world’s efforts to combat climate change have become louder – the USA has almost made their participation in any successor to the Kyoto Protocol conditional on the inclusion of large GHG emitters such as China and India.

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Proclaiming the need to incorporate binding emission reduction obligations for countries like China and India in the climate regime is one thing. But are Western approaches to environmental governance really that easily transferable to countries which have a very different governance setting? The argument put forward in this paper is that one major drawback in our global effort to set up a structure for climate governance is the blindness of many Western researchers to the changing circumstances of governance arrangements in the Non-OECD world. The private-public dichotomy – already outdated for many aspects of OECD governance, but not at all adequate for conceptualizing governance patterns in Non-OECD countries – is a prominent example.

China as a country in the midst of transition from a planned to a market economy is a nice example for a country which shows many organisational forms that blur the private-public dichotomy but which nevertheless was able to establish itself as the leading CDM host country in the world. If we take a closer look we can see a strong state interference in the market by the Chinese government. One could even speak of ‘state capture of a market’ because the Chinese government sets tight rules on project ownership, CDM revenue taxation, and controls the CER price and thereby steers the carbon market towards its own political priorities. Does state interference suddenly – despite our economic textbooks’ advice – foster market mechanisms? If we take an even deeper look into the Chinese carbon market, we can detect that even in China the distinction between public and private actor does no longer hold. Local governments use the CDM to earn additional income, and allegedly private actors provide public goods of CDM information and capacity development; some carbon market actors are recognisable as neither public nor private, because they operate on state guidance, but rely on private money. In sum, however, these hybrid actors have contributed to some extent to a prospering CDM market. But this emergence and performance of hybrid actors on the Chinese CDM market was not foreseen nor integrated in any governance arrangement arguably because the global discourse on climate governance is too much biased on Western distinctions between public and private actors and their distinguishable governance roles.

Contributing to closing this research gap, this paper provides a summary on how so-called ‘provincial CDM centers’ as an example of a local Chinese hybrid actor perform for the provision of public goods for the CDM. Based on the experiences with the set up of these semi-public, semi-private CDM promotion centers, this paper explores the following research questions: *How to explain the emergence of hybrid actors in China’s environmental governance? And how to evaluate their implications for the provision of public goods for environmental governance?*

For an answer to the first question ‘why do hybrids emerge?’ the debate on new forms of governance and the literature on economies in transition are reviewed. Hybrids are a new topic in the governance debate, but familiar in the literature on economies in transition. Both approaches offer different explanations: the first approach explains hybrid actors as a consequence of the blurring of tasks for private and public actors in OECD-governance; the second approach explains hybrid actors as a consequence of the blurring of ownership rights in transition countries. Merging the insights of these two disciplines on the role of hybrid

actors could help to further develop concepts for analyzing hybrid actors by taking into account their different systemic contexts as intervening variables.

Concerning the second question ‘what do hybrids deliver?’ a literature review on the achievements of hybrid actors in China reveals that the performance of the so-called CDM centers is in line with a general tendency of hybrid actors: they tend to neglect their mandate for the provision of public goods, while they concentrate their efforts on the generation of private goods. Their mixed performance is explained by their conflicting mandates, their inherent conflict of interests, and the lack of control exercised by the public stakeholders who should monitor and steer their performance.

Finally, it is argued that the blurring of the private-public dichotomy of actors is only mirroring the blurring of the market-state dichotomy. The argument is made that the new roles for local bureaucracies as market actors (= CDM centers) are just one more example for how the role of the state is changing in China – from being a regulator relying on top-down hard steering the state turned into a facilitator for the market economy and eventually has taken on the role of being an entrepreneur itself. Concerning the global environmental governance debate the argument is put forward that not the dichotomy ‘public versus private’ or ‘state versus market’ is of main interest, but the question of how to create incentive structures that give value to the environment.

## **II. Theoretical approaches explaining the emergence of hybrid actors**

### **Hybrids are new in the governance debate...**

In the debate on new forms of governance it has become fashionable to speak of hybrid actors, hybrid forms of governance and hybrid regimes (Erdmann, 2002.; Rüb, 2002.; Lemos and Agrawal, 2006.; Erdmann, 2007.; Bünthe, 2006).

Hybrid actors are considered to be new phenomena in a debate which used to rely on black and white categories of actors types such as state- and non-state actors, public and private actors, profit- and non-profit actors, etc. These distinctions made sense for inferring different causal mechanisms from these different kinds of actor constellations on governance outcomes, e.g. ‘governance by government,’ ‘governance with government’ or ‘governance without government’ (Zürn, 1998.; Rosenau, 1992.; Rhodes, 1996:652). State actors have been traditionally seen as the warrantors of governance outputs, but their alleged inability to deliver effective and efficient governance provoked many accounts of ‘government failure’ (Jänicke, 1990). With the simultaneous emergence of private actors – for profit and not-for-profit ones – in governance constellations (Cutler et al., 1999.; Hall and Biersteker, 2002.; Cashore et al., 2004.; Keck and Sikkink, 1998), the state was soon seen as being on the retreat (Zürn, 1998). Instead, governance styles have emerged in which the boundaries between and within public and private sectors have become blurred (Stoker, 1998.; Haufler, 1995); this is true as well of the boundaries between for-profit and non-profit private actors (Wolf, 2008:234). Lately, research on new forms of governance has been able to observe the emergence of ‘hybrid actors’ in various political fields (Schuppert, 2008). Consequently, many authors are calling for the abolishment of the outlived ‘private-public’ dichotomy (Rhodes, 1996.; Pierre and Peters, 2000), especially when analyzing governance actors in areas outside the OECD context (Draude, 2007:7).

For a few years now, this general debate on new forms of governance, the emergence of hybrids and the old-fashioned dichotomy between public and private actors is becoming transferred and further elaborated by researchers working on climate governance (Pattberg and Stripple, 2008.; Jagers and Stripple, 2003.; Andonova et al., 2007). Climate change as a transnational issue is prone to multilevel, multi-actor forms of regulation, and the CDM is a prototype example for demonstrating that all phases of the policy-cycle can involve public and private actors and mixes thereof (Hautes and Yamin, 2000.; Corell and Betsill, 2001.; Streck, 2007). Due to the lack of adequate state capacity in many countries, hybrid modes of governance such as public-private partnerships and co-management of CDM projects are often seen as promising options to tackle worldwide climate change (Lemos and Agrawal, 2006:315). Hybrid actors are already playing a crucial role in the implementation of the Kyoto Protocol: e.g. certification companies for CDM projects are sometimes private companies with a strong attachment to their national governments, and governments themselves act as market players when they buy CERs via their public purchase programs.

Despite this new hype about hybrids, a definition of what constitutes a 'hybrid actor' is still outstanding, although there are several suggestions of how to define 'hybrid regimes,' e.g. as being "political regimes which have the features of two regimes types but in which none of these features is dominating" [translation by author] (Schubert and Tetzlaff, 1998:20). Critical in this definition is the interpretation of how much of one part must be given so one can say it starts 'dominating' the other. At exactly which degree of, e.g. being operated like a private company, does the actor stop being a 'hybrid' and start being a 'private actor?' The messiness of such distinctions is not yet resolved and has been already identified by several authors as a research desideratum (e.g. by Croissant, 2002:17)

Theoretically-informed tools for analyzing hybrid actors are missing as well, although there are again several proposals how to conceptualize hybrid regimes (Croissant, 2002:17ff.). Concerning 'hybrid governance forms' Draude has proposed to use the heuristical device of looking for 'functional equivalents' to our Western understanding of governance when doing research in areas of limited statehood (Draude, 2007) and Schuppert has suggested differentiating between three forms of 'hybridization of governance' namely according to their legal, their organizational/institutional and their functional dimension (Schuppert, 2008:34). The empirical findings already revealed, however, a causal relation between the three dimensions suggested by Schuppert: the legal setting of the CDM centers (in terms of public or private ownership) and their organizational form (being operated like a public or a private entity) seem to be in part explaining their function of either delivering public and/or private goods.

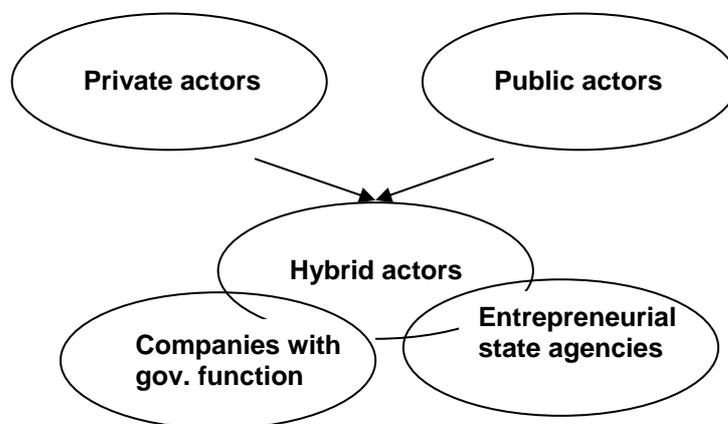
What do hybrid actors actually look like? Although research on how to conceptualize hybrid actors is only recently emerging in the academic debate, there are many examples of hybrid actors throughout social history. They are more familiarly known as e.g. Chinese merchants who also contributed to food security, or the East-Indian tea company which represented the British crown and took up governance functions, or the private tax collector, historically in the Roman Empire, or presently in many developing countries (Schuppert, 2008:18, Badian, 1997.; Stella, 1992.; Leutner, 2007). Hybrid actors are also well-known in present times in the OECD world. These take the form of 'agencies' and 'public enterprises' which are non-profit, but performance-based, entities providing public services for or supplementing the state (Pollitt et al., 2004.; Döhler and Jann, 2007.; Edeling et al., 2001).

On the one hand, they usually get their mandate from the government and are accountable for outputs and outcomes. On the other hand, they operate in a business manner with appointed executives and output-based contracts. For example, New Zealand recently turned this outsourcing of public services to private entities to the extreme: it has broken up its ministries into company-like business units (World Bank, 2007:10).

There are several explanations for the emergence of hybrid actors in the OECD contexts. Advocates of the problem-focused functional approach argue that the complexity and interdependency of today's problems require a multi-level, multi-actor solution, because no single actor alone would have the capacity to tackle such problems (on environmental problems see Lemos and Agrawal, 2006:311).

A more wide-spread explanation is the spread of neoliberal aspirations to save on public spending, to streamline bureaucratic processes and to 'infuse entrepreneurial spirit in the government's bureaucracies' (Osborne and Gaebler, 1992; Eisinger, 1998) or to right away outsource public service delivery to private actors (Savas, 1979). In short, the diffusion of the New Public Management paradigm is one explanation for the occurrence of hybrid actors in governance arrangements (Osborne and McLaughlin, 2002). These 'mixed modes or new interplays' of public goods provision are even seen as the attribute of modern statehood (Schuppert 2008:34). Hybrid governance arrangements are thus the end product of a process in which formerly independent public and private actors have become increasingly intertwined through the marketization of governance modes (see figure 1).

**Figure 1: Mergence of private and public actors to hybrids in OECD-contexts**

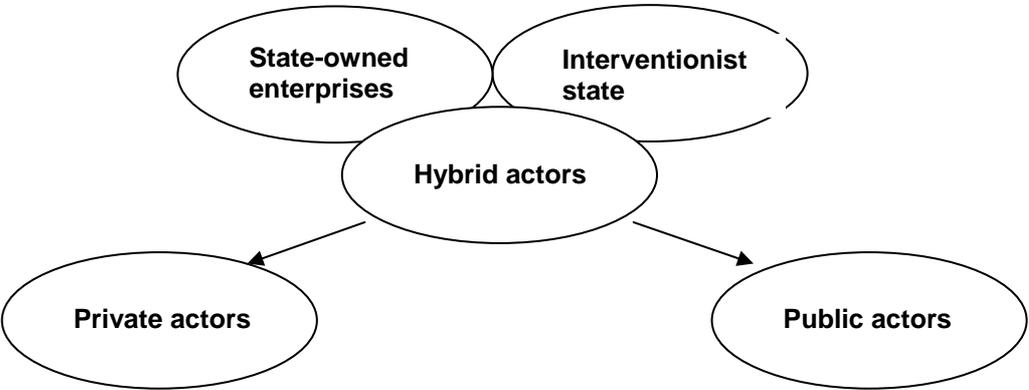


**...but are an old phenomenon for economies in transition**

Although research on hybrid governance actors is not yet well-developed, hybrid actors are a familiar phenomenon for economies in transition. Their appearance and their intended governance functions are similar to their OECD counterparts, but the reasons given for their emergence are very different. While it has become a new paradigm in OECD countries to overcome the public-private dichotomy by turning state actors into enterprises and by making companies responsible for governance functions, countries with economies in transition have hybrid actors as a legacy of their communist past (Nunberg, 1998). Hybrids are emerging in these countries because the withdrawal process of the state from being intertwined with the economy happens only slowly and gradually. Not even former

communist countries with the keenest ‘big bang’- rejection of the communist system could overcome state dominance at once, because the process itself needed public supervision. A strong shadow of hierarchy usually remains in all public and private spheres (Garcelon, 1997). This overpresence of the state is a relic of the former communist times in which the public sector was so expansive that it was almost impossible to distinguish between the state and society or between public and private actors (Walder, 1995). At least for the Eastern European countries, the start of the transition period coincided with a time in which the neo-liberal concepts of public administration dominated the discourse on the role of the state (Verheijen, 2003:490). Embedded in this historical context, the greatest challenge for countries with economies in transition is not the merging of public and private actors like in the OECD world, but their disentanglement (compare figure 2). Interestingly, both trends – merging and disentanglement – are argued for in the name of efficiency gains.

**Figure 2: Disentanglement of hybrids into private and public actors in economies in transition**



Just as the classical public-private dichotomy *no longer* holds for the emerging trend of hybridization of actors and governance modes in OECD countries, this dichotomy also does *not yet* adequately grasp actor categories in economies in transition.

**Summary: Hybrids ≠ Hybrids**

The literature review on hybrids has revealed that disposing the ‘private-public’-dichotomy and speaking of ‘hybrids’ adds little value to the debate on new forms of governance, because hybrids are differ widely in their nature depending on their context. In the OECD world of modern nation states ‘hybrids’ have a positive connotation of being actors that deliver governance outputs more efficiently than would be possible for public actors on their own. In the countries with economies in transition ‘hybrid’ actors have a rather negative connotation of being a twitter between state and non-state actors, neither particularly accountable nor effective in their governance performance. In Non-OECD countries that are not economies in transition, but countries facing ‘only’ normal development challenges, the emergence and performance of ‘hybrids’ can be expected to again take different forms. Not only is an abolition of the public-private dichotomy when conducting research on hybrid actors in Non-OECD areas long overdue, but it is crucial that the differentiation of the contexts themselves in which hybrids occur (as e.g. governance actors in an economy in transition like China cannot be compared to governance actors in straight market economies like Taiwan) be made clear. Regional particularities might also be relevant distinction criteria, as the debate on the East-Asian economic miracles has some valid points in its emphasis on

cultural determinants in Asian governance styles which also might be intervening variables explaining the variance in emergence and performance of hybrid actors (Cheung, 2000).

### **III. Hybrid actors in China's environmental governance**

The following paragraphs take the Chinese situation as an example for a country with an economy in transition, because this allows a direct discussion of the empirical findings from China in light of the general debate on the performance of hybrid actors in economies in transition. The emergence of hybrid actors in China is embedded in the general transition process from an economic system in which decisions and targets were dictated by the central party state towards an economic system in which coordination happens based on market mechanisms and political decisions made at all levels of state hierarchy (Lee and Lo 2001:237).

Nowadays almost all administrative entities in China have their own hybrid organizations (Lam and Perry, 2001:28) which they can use for public goods provision *and* for profit generation. Because only the hybrid agencies can legally become active in profit-earning activities, many of these organizations have become the 'little treasuries' (*xiao jinku*) of their administrative superiors (Zhang, 1996). For example, many public research institutions and universities have private spin-offs. Usually they conduct for-profit research by making use of the staff and resources of their public mother institutions, and are also charged of neglecting unpaid basic research (Liu and White, 2001:1108). The well-known Chinese Academy of Science operates many of these hybrid spin-offs at the local and even at the headquarter level (Hu and Jefferson, 2008:309). Also in the field of environmental governance, the role of public and private actors is in flux. For example, public Environmental Protection Bureaus often have private spin-offs which do for-profit environmental impact assessments and provide environmental planning services for the government and private customers (Lo and Tang, 2006:200). These private customers might be industrial enterprises whom Environmental Protection Bureaus also charge environmental pollution levies in their function as a public actor – a situation which of course easily leads to conflicting interests and corruptive practices (Kwong, 1997).

Another type of popular hybrid organizations in China are 'state commercial agricultural agencies.' Their labeling as 'state commercial agencies' alone already reveals their hybrid character. Research on their performance reveals striking similarities to the observations on CDM centers: they are state agencies which participate in markets like commercial entities. Sometimes they even dominate markets, but "their ability to exercise market power is often limited by intra-agency competition, new entrants and indirect competition for other markets" (Sicular, 1996:82). Consequently Terry Sicular concludes:

...in view of changes in the nature and role of state commercial actors, the distinction between 'state' and 'non-state' actors is no longer relevant... a more useful distinction is that between state agents who are officially charged with policy-related commercial activities, referred to as 'designated' commercial agents, and other, non-designated commercial agents. (Sicular 1996:82)

This suggestion to distinguish according to assigned tasks (public or private) points in the same direction as the suggestion to look for functional equivalents when analyzing governance forms in Non-OECD countries (Draude, 2007), but has also already suggested for distinguishing between different national systems of innovations (Kogut, 1993:7).

In the literature on economies in transition a definition of 'hybrid' is also still outstanding, but there are Chinese categories available how to distinguish agencies according to their ownership structure and their decision-making authority. The official administrative categories reflect a broad spectrum regarding ownership setting and operational modes from purely private to purely public entities. Regarding 'people's enterprises,' the following differentiation is made (Solinger, 1992:133):

- *Minyouminban* – supposedly owned and managed by 'people'
- *Guanyou minban* – owned by the state but managed by 'people'
- *Guanmin gongyou* – those jointly operated and owned by the state and 'the people'

### **Shiye Danwei – public service agencies in China**

The most common category of hybrid organizations in China are so-called 'shiye danwei' (translated in the English literature as 'public service units,' 'service organizations' or 'marketized firms'), which may again comprise an array of organizational types that differ in their individual setting. These organizations can be defined as 'quasi-state' organizations which perform administrative functions and provide public services on an increasingly self-financing basis" (Lo et al., 2001a:40). Although the history of public service units can be traced back to China's communist times, their importance grew only with the reform politics. Public service units were fostered because they were seen as an adequate organizational form for providing public service while streamlining bureaucracy, cutting fiscal spending, and thereby pushing back the boundaries of the state by trying to do 'more with less' (Lee and Lo, 2001:6, Lo et al., 2001a). One consequence of the effort to cut public spending was to allow these organizations to generate revenues on their own by engaging in for-profit activities (Lee and Lo 2001:6). Officially they should be on an equal playing field with other private companies, e.g. in terms of bidding for public tenders. In the long-term, these kinds of hybrid organizations are supposed to be turned into full-fledged independent enterprises (Lo and Tang 2006:200). In a way, their intention and setup is therefore comparable to the role of public agencies and public enterprises in OECD-countries, some of which are organizational forms of private ownership but publicly funded (Burgi, 1999.; Schuppert, 2008:838). In reality, however, public service units in China are heterogeneous, and many hybrid forms are emerging that only partially cater to their original mandate of public goods provision. Nevertheless, with one forth to one third of all public budgetary expenditures going to the public service units, they "constitute a big shadow of the Chinese state" (Lam and Perry, 2001:20). This growing importance and variety of hybrid actors is one typical feature of economies in transition. With regard to China, some authors even claim that "[t]his hybridization has become a distinct feature of China's market-oriented reforms" (Tenev et al., 2002:15), call it "institutional amphibiousness" (Ding, 1994:293), and see an "institutional fluidity, ambiguity and messiness that operate at all levels in China and that is most pronounced at the local level" (Saich, 2000:141).

The most common explanation for the hybridization of actors in countries with economies in transition is the coexistence of various ownership rights in the process of the privatization of

previously state-owned enterprises (Stark, 1996). Hybridization of market and state actors can be explained as being the best solution to the problem of overarching uncertainty in a transition economy characterized by weak market structures and poorly specified market institutions such as property rights. In established market economies, business actors' autonomy is clearly defined and based on enforceable property rights. If market participants in economies in transition cannot rely on set property rights and established contract-based mediation mechanisms, it makes sense – even from a transaction cost perspective – to make use of other mechanisms as a safety net for business relations. If the state withdraws from its dominating position in the system, safety networks of personal relations and mutual dependencies are one option that can reduce the costs of market transactions (Pfeffer, 1972; Pfeffer and Nowak, 1976; Williamson, 1991:271).

By having and serving two masters, hybrid organizations have therefore some advantages over pure public and private entities, which are especially relevant in situations of uncertainty: they can use the resources and the governance structures of both parties and they can rely on the public safety nets while enjoying private profit opportunities (Borys and Jemison, 1989:235). What this means in practice could be well observed for the CDM centers: their staff is on the public payroll, they can use public information and communication channels, and they can rely on public consultancy assignments in times of little market demand. Surely hybrids pay a price as well for their exceptional status: they lose their autonomy. Or better put for economies in transition: they do not yet gain autonomy. Neither collective nor state-owned enterprises in China become privatized overnight. Instead they are gradually transferred into a different ownership arrangement, which usually first means co-ownership by local governments and private operators. Thus, in the process of economic transition, organizational ownership and status is negotiable (Saich, 2000:133). Hybrid constellations are thus a very common negotiation outcome because they make up a nice compromise for the former state owner who wants to keep political influence and for the future private owner who is interested in turning the organization into a profitable enterprise but likes to keep the local government as a patron. In economies in transition, hybrids can therefore be perceived to be a third organizational form and a discrete governance structure besides market and hierarchy (Nee, 1992:7).

### **Provincial CDM centers as one example of hybrid actors in environmental governance**

So-called CDM centers in China are one example of an actor type with relevance to environmental governance that emerges due to the challenge of having to make a market mechanism like the CDM work in an economy in transition. Because the CDM market in China did not evolve quickly and showed first signs of market failure in terms of asymmetric information, the Chinese government decided to support the initiatives of some local government officials to establish 'provincial CDM centers' for kick-starting the local CDM markets. They did this in line with previous Chinese policy measures supporting innovation and new markets. For example, setting up technology promotion centers that have the tasks to diffuse new technologies is common in China (Jefferson, 2006). Being a political system which relies more on personal relations and leading political figures than on laws and regulations (Lieberthal and Oksenberg 1988), the approach to set up 'centers' to push political ideas is very typical and in contrast to other approaches, e.g. those which might rely

on legal regulation. Although the first idea for a CDM center came from an individual from Ningxia, the central Chinese government soon took up the idea and approached foreign donors for financial assistance. 27 of these centers now exist or are in the process of being established. Most of these CDM centers are semi-public, semi-private agencies with the double mandate of providing public goods while operating with a for-profit orientation. Their tasks include CDM promotion, capacity development and last but not least CDM project development. The public good in this case is CDM information and capacity development for CDM diffusion. CDM centers can thus be seen as institutions which are supposed to reduce transaction costs for market participants by providing these public goods. Ultimately, the CDM centers' contribution to CDM market development will enable CDM projects which reduce GHG emissions and thereby should contribute to sustainable development and environmental protection.

Despite their similar mandates, the centers show a large variance in their effectiveness of achieving their objectives. An empirical analysis of the performance of four CDM centers in the Chinese provinces Ningxia, Gansu, Hunan and Yunnan (conducted between September 2007 – February 2008) reveals that one main explanatory variable for the centers' variance in effectiveness in CDM diffusion is their organizational setting. CDM centers usually have a form of hybrid setting on the continuum between being a part of the provincial government, via being a semi-public agency with profit-making opportunities, towards being an independent private company. If they are a part of the provincial government, they are performing well in the early market phases in terms of information dissemination and capacity development, but are not competitive with private consultancies for CDM project development in the later market phases. If CDM centers consist of both – a public and a private entity – they tend to concentrate on profit-making CDM project development services, and do only the 'must dos' concerning information dissemination and capacity development.

If one takes a closer look at the CDM centers again, they reveal that performance indeed varies with ownership and degree of autonomy in decision-making (compare table 1). None of the centers has a clear public or private ownership but instead there are public and private flows of money in various constellations for covering the costs of their setup, staff salaries, and operating costs. In addition, the provincial government can even become an official shareholder if the center has the form of a shareholder company like in Hunan. Centers also show great variance in their decision-making structures. Public agencies like the centers in Gansu and Yunnan are closely tied to the provincial governments' instructions but have freedom in managerial decision-making of how to reach predefined targets. The more private centers in Ningxia and Hunan have nearly independent decision-making power (especially for their 'pure' private consultancy branches), but they try to cater to the governments' proposed tasks as much as possible in order to keep political and financial support. The empirical findings show that – all other factors being equal - the more a hybrid is owned privately and the more it has autonomy in its decision-making the less it will provide public goods and the more it will focus on private goods provision.

**Table 1: Possible hybrid models of CDM centers and their effectiveness**

<i>Form</i>	<i>Ownership</i>	<i>Autonomy</i>	<i>Example</i>	<i>Performance</i>
Part of provincial government, but unit is allowed to make profit from selling services	Public: Government covered setup and pays operational costs	Low: the provincial government has instructive power on decision-making	Gansu, Yunnan	Medium for private goods provision (project development services) Medium for public goods provision (are provided, but quality is low)
'One entity with two heads,' one being part of government, the other being a private company	Public and private: government covered setup, pays staff salaries, other operating costs have to be self-financed	High: all decisions are made by the center's director, but he is obligated to incorporate 'public tasks'	Ningxia	Good for private goods provision (project development services)  Low for public goods provision (information and trainings only during setup period)
Private company with government affiliation	Private: but government covered setup costs and holds stake in the company; operating costs are self-financed	High: all decisions are made by the center's director, but he is obligated to incorporate 'public tasks'	Hunan	Good for private goods provision (project development services)  Low for public goods provision (information and trainings only during setup period)

The provincial CDM centers are an example how a local policy experiment succeeded and is now implemented on national scope in 27 provinces. Why has the Chinese government considered these CDM centers to be worthwhile for national scale replication? The empirical analysis showed that because provincial CDM centers take a variety of in-betweens from pure public to almost pure private forms of organization, they are a good example of the 'organizational zoo' which has resulted from the non-decision on how to progress with the deliverance of public services in China. In a way, the case studies on how local CDM markets and their market institutions have been created resemble in short the challenge China faces in creating the new institutions for a market economy. Examining the Chinese hybrid actors can hopefully provide some insights about functional equivalents to pure public or pure private actors. Although a note of caution has to be given on the methodological ability to generalize the findings from four case studies of the very specialized field of provincial CDM markets, these policy experiments are worth being discussed for how they fit into the existing debate on the transition of environmental governance in China.

#### **IV. Explaining the performance of hybrid actors**

Hybrid actors such as the public service units have been officially supported in China in order to increase the quality of public good provision while being able to cut down on administrative spending. This institutional reform was also meant to improve the capacity of China's environmental governance system (Lo et al., 2001b:55). The empirical research on the effectiveness of the provincial CDM centers, however, has shown only mixed results for their performance: they tend to be good at providing CDM project development services,

but they underperform in their tasks related to the provision of public goods, such as information and know-how.

The weak performance of CDM centers in the provision of public goods for CDM diffusion and CDM market development is unfortunately no exception to the rule, but can also be observed for other kinds of hybrid actors in China (Caulfield, 2006:254, Lo et al., 2001b:55). Previous research on other kinds of hybrid actors in China also came to the conclusion that the role and performance of environmental public service units could at best be described as “mixed” (Lo et al., 2001b:61). Although they would indeed have contributed to streamlining and downsizing the government’s administrative apparatus, they would be preoccupied with income-earning activities because of the administration’s inability to control them. Due to these experiences “[r]eforming the service organizations has gradually emerged as the next frontier of institutional reform in China’s environmental governance system” (Lo et al., 2001b:61).

The expected solution to a governance problem has thus created a new governance challenge. But why do the hybrid actors show such mixed results in performance?

### **Hybrid actors have hybrid roles and a potential conflict of interests**

The problem in assessing the performance of hybrid actors starts by defining what they are supposed to deliver. One reason for their mixed performance is that already their objectives are contradictory in and of themselves. Quite naturally, hybrid actors have hybrid roles. A fairly useful metaphor for understanding the role of hybrid governance actors has been their description as representing a ‘hybrid being,’ e.g. a centaur (Schuppert, 2008:11). If hybrid actors in governance would be a centaur, their human features could be thought to represent their private business character, while the equine body could represent the ‘sovereign state-steed’ (Schuppert, 2008:11). Of course, having two souls in one body is prone to conflicts. This certainly also applies to hybrids such as the CDM centers which are meant to provide public goods of information and know-how in order to contribute to CDM diffusion and market development, but instead often choose to focus on their profit-making project development services. CDM centers are thus typical examples of the dual character of public service units that are simultaneously representatives of their organization’s corporate interests as well as agents of the state (Francis, 2001:279).

One obvious explanation of their mixed performance is their structural conflict of interest, in part due to their variety of roles and mandates as described above. Given the close link between hybrid actors and their state counterparts on the one hand, and given the lack of clarity in mandate on the other hand, the coherence of their services may be undermined (Lo et al., 2001b:61). This conflict of interest is not only inherent in Chinese hybrid organizations but has also been a cause of mischief for many public enterprises in OECD countries which are supposed to run performance-based while providing unprofitable public goods and services; thus, they are supposed to optimize their behavior, on the one hand in terms of taking up a market orientation, and on the other hand in correcting market failures (Weinert, 2001:37, Stölting, 2001:18). An optimization of behavior along both objectives is not possible; one objective naturally has to be subverted by the other.

What eventually gets translated into action are interests within hybrids that converge. CDM centers are again a good example for this hypothesis. At least concerning the development

of CDM projects, CDM centers as profit-oriented entities and their affiliated government units share the same interests, albeit for slightly different reasons. CDM projects mean money for both of them: profits from project development services for the CDM centers and tax revenues from energy and industrial projects for the provincial government. Thus, provincial governments in China usually support the CDM because it offers them new sources of revenues. This kind of entrepreneurial nature of local governments has been identified for other issue areas before (Oi, 1996.; Walder, 1995), and also in relation to the CDM: “local governments in China act very much like profit-seeking businesses and CDM provides a market for profit...It may be fair to say that financial gain and technology transfer are two primary motivations of local governments for developing CDM projects” (Qi et al., 2008:12). Besides their own entrepreneurial motivation, local governments are also obligated to advocate the non-profit orientated demands and requirements made on them by the central government, although they sometimes do this only half-heartedly. The analysis of the interest constellation within CDM centers reveals that there is a common denominator for CDM project development with high incentives for both sides. Since interests converge on the part of CDM project development, CDM centers enthusiastically implement such activities.

Summarizing the discussion on the reasons for the mixed performance of CDM centers and other public service units in China, the inherent conflict of interests of the hybrid actors seems to be the main explanation. The coherence of interests of their ‘public half’ and their ‘private half’ on profit making (also labeled as 'bureaucratic entrepreneurship' by Gore, 1998) guides their performance more than the underlying interest of the ‘public half’ to engage the hybrid organization in the provision of public goods and services. The state is neither willing (because its bureaucrats favor individual utility-maximization) nor able (because state capacity and financial means are low at the local level) to enforce its public interest.

### **Hybrid actors are growing out of control**

Another cause for the mixed performance of hybrid actors is the quest for financial independency from their affiliated governmental unit. The consequence of this quest is the priority given by hybrid actors to profit-making activities instead of providing services to their governmental sponsors. With growing financial independence, the hybrid actor also gains decision-making autonomy. Although public patrons officially still have a say in hybrids, there is a trend of hybrids to grow out of control. This tendency of ‘growing out of control’ is not limited to China. Also in OECD countries, the supervision of public agencies is a fragile process of granting necessary autonomy and exercising control on service deliverance (Majone, 2005). The phenomenon of agencies becoming too independent from their public patrons has also been observed for public agencies in OECD countries as a consequence of political decentralization and fragmentation (Christensen and Lægheid, 2001).

In China, the government administration often no longer has the capacity or the will to coerce public service units to deliver on their public mandate. This applies to the central government as well as to the provincial government, albeit for different reasons. Decentralization has been one measure of reform to remedy the overconcentration of economic and managerial power in the central government and to provide incentives for the local governments for efficient governance. Because decentralization also included fiscal reforms that favored the local government, the central government lost several levers with which it could enforce control as to what happens at the provincial level. The economic

transition process amplified this situation because many tasks which used to be performed by governmental entities are now in the hands and in the control of private and hybrid entities. As a consequence China experienced a rise of neolocalism in which provinces started to adhere only to local priorities and to cater to local needs (Jia and Lin, 1994.; Nee, 1992:3). This included a form of corporatism between the provincial government and local companies which was becoming outside of central government control. As a consequence, the central government initiated a re-centralization campaign in the late 1990s which stripped local governments of fiscal revenues. The policy of outsourcing services to public service units has been one result of this limited budget situation of local governments. With the erosion of central government's supervision and the lack of financial means, the provincial governments' control of the hybrid public service units is weakening. As outlined before, increasing financial independency of the hybrid actors is furthermore contributing to their autonomy. With the marketization of the Chinese economic system, the public service units find it now more profitable to sell their services to private consumers and private companies than to rely solely on their public patrons' financial rewards. Other kinds of carrots and sticks, however, are still existent and responsible for the continuing dependency of the hybrid entities on the governmental entities. These are, for example, means of political pressure and personal rewards exercised by the Communist Party in its cadre evaluation system (Guo, 2007).

In sum, the last paragraph demonstrated that the Chinese examples of hybrid actors show only mixed performance. Two main variables seem to be causal for their effectiveness: their inherent conflict of interests and the lack of control from their public patrons on the deliverance of public goods. These variables, however, seem to be only intervening variables caused themselves by a flux in ownership rights and a blurring of decision-making structures.

### **Is symbiotic co-governance possible?**

So far the performance of the new hybrid actors in Chinese environmental governance has been satisfying for the provision of private goods but disappointing for the provision of public goods. Contrary to the New Public Management paradigm, the outsourcing of public service provision has not (yet) been successful in China's economy in transition where boundaries between public and private remain blurred. Is there nevertheless hope for successful co-governance of public and private and even hybrid actors? The concept of co-governance has so far been mainly used to describe "organized forms of interactions for governing purposes" (Kooiman, 2003:97) and practically refers to various forms of collaboration, cooperation and co-management of private and public actors. Many empirical examples of such symbiotic, mutually reinforcing governance arrangements involving the public and the private sector have been observed in various regions and sectors (for Latin America e.g. Campbell and Fuhr, 2004.; for the health and education sector e.g. Van der Gaag, 1995). This evidence shows that public and private actors can complement each other for the provision of public goods.

What would co-governance look like for hybrid actors? It must be assumed that conditions conducive for co-governance need to be transferred from the level of interaction between two actors (public and private) to the level within an organization of an hybrid actor (which might be the management level of strategic decision-making). Similar to the fact that incentives for public and private actors have to be in the right constellation at the interaction level for cooperation to occur, incentives given for decisions taken at the managerial level of

hybrid organizations should lead to win-win options. As discussed before, however, incentives found in the hybrid organizations in China are not mutually reinforcing, but unfortunately are heading in different directions: mandates on the one hand ask for the provision of public goods which are by definition free for everyone, and on the other hand ask for the organization's ability to self-finance itself by profit-generating activities. While the 'public' mandate is backed by career awards, the 'private' mandate is incentivized by monetary awards. But because the latter is also conducive for advancing a career as a prospering public agency and is bringing in revenues for its public patron, decision-makers in public agencies tend to go for the monetary incentives first, and only superficially cater to their public tasks.

Their focus on profit-maximizing activities is explainable and appropriate because they are what they are - namely hybrid actors. If they would be pure-public bureaucracies with a clear mandate for public good provision, their tendency to concentrate on profit-making activities could be labeled as rent-seeking. But since rent-seeking is defined as "any manipulation of the law or of government authority in order to generate or appropriate an economic rent" (World Bank, 1996:viii) it does not apply to the CDM centers. In concentrating their work on for-profit project development they do not bend the law or abuse governmental authority. Their profit-focused behavior is instead legitimate because they are partly private companies. Thus, although a focus on the provision of public goods would be desirable, the lack of appropriate incentives to do so puts the blame not on the actors but on the structures.

This having been said, a critical remark has to be made on the opportunities for governmental asset stripping that arises due to the prevalent incentive structures for hybrid actors in countries in transition. The coexistence of different institutional settings with their consequential hybridization of actors has created opportunities for persons heading such hybrid organizations to turn assets of their 'governmental part' into profits for the 'private part' (Lo et al 2001:61; Tenev and Zhang 2002:22; Caulfield 2006). If 'profits for the private part' become however equal to personal profits, it can be considered to be a form of rent-seeking (for a classical definition see (Tullock, 1967); for a more recent overview see (Tullock, 1993). On the other hand, although the CDM centers can take advantage of their public counterparts by e.g. using their information channels and instrumentalizing their political status, this does not derogate the provincial government in any form. On the contrary, the effective use of their governmental affiliation is also advantageous for the government if the CDM diffusion by the centers leads to additional sources of revenues.

The consequences of these findings from hybrid actors in China should be to shift the research focus on hybrid actors from actor constellations to incentive constellations. Also future research and debate on what kind of criteria could be used to evaluate the performance of hybrid actors in normative way is still needed. Thus the main focus should not be on the 'public versus private' or the 'state versus market' dichotomy, but on the question of how to create incentive structures that give value to the public goods and that would enable symbiotic co-governance. This conclusion is in line with Walder's conclusion about the consequences of China's transitional economy:

[The] most important conclusion ...[is that] a transitional economy must alter incentives not merely for individuals and firms but for government agencies and government officials themselves, for the behavior of the latter can have enormous

economic consequences...the task is not to revile state involvement but to change it (Walder, 1996:16).

### **Who is left to check on the system?**

Creating such a conducive incentive structure for public goods provision is of course a major challenge. And there might be limitations on the extent to which monetary incentives can be provided for public goods provision, especially for financially weak developing countries. If the carrots are few, what about the sticks? Are there coercive means available to ensure the provision of public goods?

Although governance can happen without government playing an active role, at least the existence of a 'shadow of hierarchy' is assumed necessary for governance to take place (Börzel, 2007). The state must thus at least make a credible impression that it would be able and willing to control and enforce the provision of public goods by hybrid actors. This precondition is often called the 'governance paradox,' as sufficient state capacity needs to be given for an effective outsourcing of governance functions to public (or hybrid) actors, although this private governance was thought to be a supplement for ineffective state governance in the first place (Börzel, 2008:118).

At first sight, China might be the ideal place for realizing new private governance arrangements, if this depended to a great extent on coercive powers of the state. China has a strong central state with a strong shadow of hierarchy. The government is interested in experimenting with market mechanisms and with deliverance of public goods by private actors. The central government is also interested in streamlining its bureaucracies, cutting government expenditures and experimenting with recommendations from New Public Management. Ideal conditions?

Unfortunately, even in China, state capacity to control for the provision of public goods by non-state actors is not as strong as imagined. Krugmann even speaks of the Chinese government as being 'too soft,' because it would be adhering to a model of 'crony capitalism' in which corporatism between state and no-state actors would be too strong (Krugman, 1994). Indeed, at least local state control is often lax, maybe more due to a lack of motivation and interest in control of public goods provision than due to a lack of capacity. Private and hybrid actors which have taken up mandates for public goods provision are thus growing out of control – and are not delivering as expected.

Having hybrid actors participating in governance makes the situation even more complicated. The public – private dichotomy of actors in the analysis of OECD country situations at least provided some conceptive framework for who would control whom for the provision of public goods. With hybrids not only do the boundaries between public and private actors become blurred, but also the boundary between subject and object of control. The question with special relevance for the governance performance of hybrid actors is *who is going to exercise this shadow of hierarchy* if hybrid actors are the objects under this shadow (their 'private half' providing governance outputs) as well the subject of this shadow (their 'public half' demanding governance provision). As described above, in this schizophrenic constellation of interests it is usually the convergent interest in maximizing private utilities that gains the upper hand, at the expense of public goods provision.

If the public interest is nevertheless to be served, someone external to the hybrid actor might take up the controlling role for public goods provision. Basically two trajectories are possible – as stand-alone solutions or as a combined approach: One strategy is to strengthen state capacities to enable public actors to exercise their full controlling power over public goods provision. The second strategy is to instead concentrate on strengthening non-state actors from civil society so that these can take up a controlling function and hold the state, hybrid and private actors accountable for their performance.

Of course the first strategy of fostering state capacity remains part of the vicious cycle of strengthening state capacity for the sake of improved state capacity. For a country like China, the recommendation to strengthen state capacity for a better control of governance outputs is too simplistic, because even in its authoritarian system there is no ‘one state actor.’ Instead, there is a multitude of levels of state in China, comprising various ministries and agencies on the horizontal level, and a variety of central-, provincial-, district-, county-, city-, township- and village-level state actors in the vertical line. When talking about strengthening state capacity in China, a disaggregation of the state into its components at the different levels is long overdue, because each level of government faces different barriers and incentives to improve its performance (Oi, 1995:1147). Research on state capacity in China usually arrives at the conclusion that it is at the local level where will and capacity are lacking, while the central level generates good macroeconomic policies but is weak in enabling their implementation. Both levels, however, share common governance deficits in terms of lacking accountability, transparency and legitimacy. But even if the Chinese government resembled a ‘modern’ and democratic state of the OECD-type, its ability to effectively supervise private (or hybrid) provision of public goods might not be taken for granted, because a government is not a “neutral arbiter exogenously attached to the economic system to correct the failure of private coordination” (Aoki et al., 1997:xvii). Instead the state can be perceived as an “endogenous element of the system with the same information and incentive constraints as other economic agents in the system” (Aoki et al., 1997:xvii).

The second strategy of looking for non-state actors to take up watchdog and control functions on the governance performance of hybrid and private actors at least has the advantage of targeting not-for-profit actors who (usually) pursue no economic interests (for the emergence of 'entrepreneurial NGOs' see Young, 1986:, Meyer, 1995). Their incentive constellation should be more in line with the public interest, as NGOs are (at least supposed to) directly represent interests of civil society groups. NGOs can thus also compensate for some of the missing accountability of hybrid actors. Addressing, strengthening and constructively involving civil society in governance arrangements is thus a popular proposal for overcoming accountability deficits (Haas, 2004:, Newell, 2008:, Mason, 2005). Accountability deficits for public administrations have already been identified by Lipsky in his book on the ‘freedom’ or ‘arbitrariness’ of street-level bureaucrats (Lipsky, 1983); and accountability deficits are certainly given for hybrid actors in China.

While these proposals make sense for democratic societies with well-developed civil societies, there is a lack of research for how to include non-governmental organizations in governance arrangements in authoritarian systems. The common explanation to this research gap is that there a) are no NGOs in these countries or b) that existent NGOs are anyway not allowed to participate in governance (White et al., 1996). That explanation is, however, again simplifying the situation. Although, for example in China, NGOs comparable

to Western advocacy organizations are indeed few, there are many other non-profit organizations that are somewhere on the continuum of public versus private actors. There are many kinds of hybrid ‘NGOs’ which do not fit our Western categories: these are for example GONGOs (Governmental Owned Non-governmental Organizations) and QuaNGOs (Quasi-governmental Non-governmental Organizations) (compare table 2). While GONGOs are clearly governmental-owned and -controlled organizations, QuaNGOs are privately owned organizations that have a government affiliation (for an attempt to define 'QuaNGO' see Greve et al., 1999); (for their situation in China see Saich, 2000). QuaNGOs are therefore the hybrids of the non-for-profit sector comparable to the hybrid agencies of the for-profit sector.

**Table 2: Potential providers of public services: ownership and incentives**

	Public	Hybrids	Private
For-profit	State owned enterprises, including public service units of for-profit nature	Shiye danwei, which are both privately and publicly owned	Private enterprises
Not-for-profit	Government departments, government owned nonprofits (GONGOs)	Quasi-Governmental NGOs (QuaNGOs)	Privately owned nonprofits (NGOs)

Source: Adopted for hybrid actors from (Wong, 2004:21)

Outsourcing public good provision to QuaNGOs has the advantage that profit-maximizing motives are less in competition with public goods provision. On the other hand, however, making non-governmental organizations fully responsible for public service provision does not solve the accountability problem either, because NGOs tend to be accountable only for the special interest group they represent and not for the entire public. In addition, many countries that have followed this suggestion and have social organizations providing public services also experience a growing legitimacy problem for the state government (on state-NGO competition see Gordenker and Weiss, 1995:551). Thus, instead of advocating a new ‘business-civil society’ dichotomy, one might follow Katherine Morton, who propagates an encompassing approach reconciling economic incentives with participatory approaches based on experiences with environmental management reforms in China:

...a pluralistic approach to managing environmental problems is an essential means of building capacity. Contrary to the main assumptions underlying the theoretical debate on environmental management, in practice there is no conflict between advocating economic incentives and supporting participatory practices. Both approaches provide a complementary means of building environmental capacity. (Morton, 2005:4)

Apparently there is no ‘one fits all’ approach to the provision of public goods and services. As David Nee already argued in 1992, there is no ideal organizational setting:

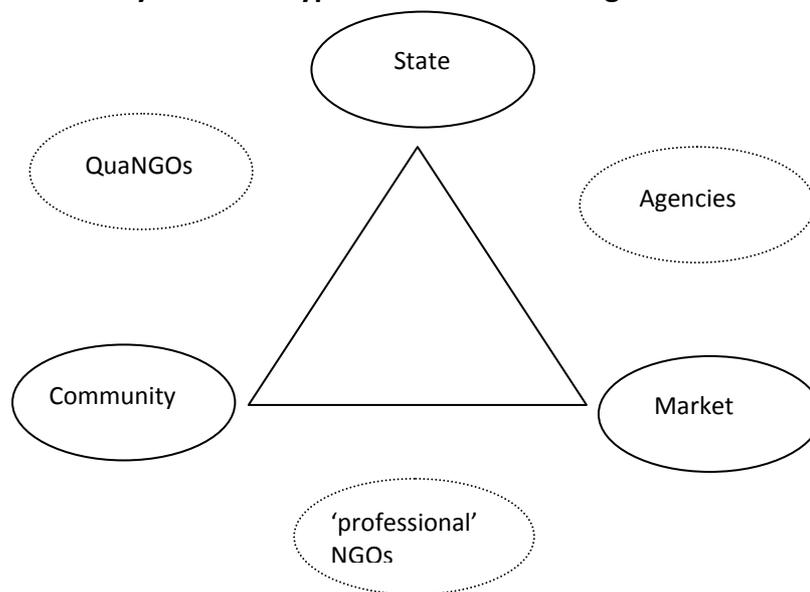
...no general organizational form is best suited for all institutional environments. Formalized and hierarchical forms of classical state socialism are well suited to a homogeneous and stable environment. But during periods of rapid change and

institutional uncertainty, organizational forms that are more flexible, informal, and open to entrepreneurship exhibit superior adaptive capacity.... (Nee, 1992:4)

The emergence of hybrid actors in OECD countries and the relic of hybrid actors in economies in transitions have opened up new trajectories of governance constellations that can be tried for their merits in their particular circumstances.

Including hybrids in research on governance may distort analytical parsimony, but they add important actor categories (see figure 3) that are better able to reflect today's complex realities than the old 'public-private' dichotomy, or the newer 'state-market-community'-triangle (Wolf, 2008:, Salamon, 1987).

**Figure 3: Traditional and hybrid actor types in environmental governance**



## **V. Hybrid actors mirror the changing role of the state at the systemic level**

What can now be learned from this discussion on the emergence and performance of hybrid actors concerning the role of the state in its relation to the market? This section puts forward the argument that similar to what has happened on the actor unit of analysis in terms of a hybridization of public and private actors, the system level in China also reveals a blurring of the boundaries between state and market.

### **The state as a facilitating state...**

The state was always the central actor in China. Because state-centric governance has been a Chinese phenomenon for now over 3500 years, many Chinese nationalists argue an authoritarian government to be a natural feature of China (Zheng, 1999:44). While a public-private dichotomy was almost nonexistent in communist times, because almost no market existed in the planned economy, the reform era after 1978 saw an incremental withdrawal of the state. For the first two decades, the role of the state in the Chinese economic miracle fitted well the description of a developmental state (Oi, 1992:, Oi, 1996:, Wade, 1990). The

state was strong and intervened frequently in market decisions (e.g. by setting prices and restricting imports) but was no longer omnipresent and allowed market institutions and market actors to emerge.

### **...turns into an entrepreneurial state**

In the late 1990s the role of the state switched once more: Instead of being external market regulators and controllers, Chinese state agencies increasingly turned into entrepreneurial entities themselves (Walder, 1995; Oi, 1996; Tenev et al., 2002; Bruun, 1995; Yu, 1997). This switch started at the local level where corporatism had been always strong, but 'trickled up' towards the central level where even ministries now have their own profit-making private spin-offs. Consequently, China watchers now speak no longer of the Chinese party being the country's government but see it as resembling the managing board of the China Corporation (Fishman, 2005). While Western observers are usually only aware of the spectacular worldwide shopping trips of the China Investment Corporation (CIC), only little is known about the entrepreneurial behavior of state entities in China itself. Research on the role of CDM centers as an example of state entrepreneurialism has contributed to shedding light on this topic. With the state becoming an entrepreneur itself the classical boundaries between state and market are no longer valid, and the state itself has become a hybrid.

## **VI. Conclusion: Are hybrid actors a transitional phenomenon or lasting feature?**

To ask provocatively: Are hybrid actors worth all the fuss or are they not just a transitional phenomenon which will dissolve with time so that we can eventually go back to relying on the public-private dichotomy which has proven its merits in explaining many governance arrangements and outcomes? Should our expectations concerning their future be the same for hybrids in the OECD context as for hybrids in economies in transition? For the latter type of hybrids we already have an intuitional idea that their existence is only one step in their country's evolution from a planned towards a market economy. First, this intuition is based on notions of a path dependency towards the 'modern' and democratic nation state of the OECD world, which – at least used to be – characterized by a clear division of the public and the private. However, the emergence of hybrid actors in OECD countries should partly induce doubts on what the future governance model is going to look like. Are hybrids becoming the norm or are they just transitional phenomena? Are they transitional phenomena for countries like China or for all countries and areas of limited and not so limited statehood? Or are for example hybrids in China a sustainable trend leading towards a new 'entrepreneurial-corporatist' variety of a Chinese governance model?

There is already a lively discussion on the shifting role of the state from planner to facilitator to emerging entrepreneur (Yu, 1997; Oi, 1998; Duckett, 2004). A governance model having the 'entrepreneurial state' at its center while acknowledging a strong touch of corporatism might indeed become a special Chinese variety of governance. What are the implications for environmental governance and the global fight against climate change? The CDM has become a new business opportunity and a global market with its own dynamics. In China, it has enhanced tendencies of marketization of environmental governance and a hybridization of actors involved. Public agencies, even ministries, compete with each other to get their piece of the CDM cake. State actors thus become entrepreneurs.

But also on the international level, the CDM enforces the same trend of state actors becoming entrepreneurs and hybrid actors. Governments of Annex I countries of the Kyoto Protocol have a dual role in the CDM: as members of the Kyoto Protocol they can act as regulators and set the rules of the game; as national governments they can use CERs for their and/or their national companies GHG emission reduction obligations and consequentially appear as buyers on the market. Some foreign governments involved in the CDM assistance programs in China also seemed to get active in CDM capacity development programs in China more for their own benefits instead of responding to local mitigation and adaptation needs. They primarily act as facilitators for CER purchases and also compete with other donors for pieces of the cake – in their case being able to support provinces with a good CDM potential in which they can have the ‘first right of CER purchase’.

In sum, there is one finding from the empirical research on the CDM with true concern for future governance: all actors involved in the CDM in China – companies, state actors, research institutions, even many NGOs – welcome the CDM as a new business opportunity. If all converge in their interests and become CDM entrepreneurs, who is then left to check on the integrity of the mechanism? If indeed even state actors and NGOs become entrepreneurs, much more thought has to be put into the question of how the diversity of public, private and hybrid actors can be integrated into a governance system that is supposed to deliver public goods as well.

## References

- ANDONOVA, L., BETSILL, M. & BULKELEY, H. (2007) Transnational climate change governance. *2007 Amsterdam Conference on the Human Dimensions of Global Environmental Change*. Amsterdam.
- AOKI, M., KIM, H.-K. & OKUNO-FUJIWARA, M. (1997) Introduction. IN AOKI, M., KIM, H.-K. & OKUNO-FUJIWARA, M. (Eds.) *The Role of Government in East Asian Economic Development*. Oxford, Clarendon Press.
- BADIAN, E. (1997) *Zöllner und Sünder. Unternehmer im Dienst der römischen Republik*, Darmstadt, Wissenschaftliche Buchgesellschaft.
- BORYS, B. & JEMISON, D. B. (1989) Hybrid arrangements as strategic alliances: Theoretical issues in organizational combinations. *Academy of Management Review*, 14, 234-249.
- BÖRZEL, T. A. (2007) Regieren ohne den Schatten der Hierarchie. Ein modernisierungstheoretischer Fehlschluss? IN RISSE, T. & LEHMKUHL, U. (Eds.) *Regieren ohne Staat? Governance in Räumen begrenzter Staatlichkeit*. Baden-Baden, Nomos.
- BÖRZEL, T. A. (2008) Der „Schatten der Hierarchie“ – Ein Governance-Paradox? IN SCHUPPERT, G. F. Z., MICHAEL (Ed.) *Governance in einer sich wandelnden Welt*. Wiesbaden, VS Verlag für Sozialwissenschaften.
- BRUUN, O. (1995) Political hierarchy and private entrepreneurship in a Chinese neighborhood. IN WALDER, A. G. (Ed.) *The waning of the communist state: Economic origins of political decline in China and Hungary*. Berkeley, University of California Press.
- BÜNTE, M. (2006) Hybride Regime in Südostasien – Genese, Gestalt und Entwicklungsdynamiken. IN PICKEL, G. & PICKEL, S. (Eds.) *Demokratisierung im internationalen Vergleich. Neue Erkenntnisse und Perspektiven*. VS Verlag für Sozialwissenschaften.
- BURGI, M. (1999) *Funktionale Privatisierung und Verwaltungshilfe. Staatsaufgabendogmatik - Phänomenologie - Verfassungsrecht*, Tübingen, Mohr.
- CAMPBELL, T. E. J. & FUHR, H. (Eds.) (2004) *Leadership and innovation in subnational government: case studies from Latin America*, Washington, D.C., World Bank.
- CASHORE, B., AULD, G. & D., N. (2004) *Governing through Markets: Forest Certification and the Emergence of Non-State Authority*, New Haven, Yale Univ. Press.
- CAULFIELD, J. L. (2006) Local government reform in China: a rational actor perspective. *International Review of Administrative Sciences*, 72, 253-267
- CHEUNG, A. B. L. (2000) Globalization versus Asian Values: Alternative Paradigms in Understanding Governance and Administration. *Asian Journal of Political Science*, 8, 1-16.
- CHRISTENSEN, T. & LÆGREID, P. (2001) New Public Management. The Effects of Contractualism and Devolution on Political Control. *Public Management Review*, 73-94.
- CORELL, E. & BETSILL, M. M. (2001) A comparative look at NGO influence in international environmental negotiations: desertification and climate change. *Global Environmental Politics*, 86-107.
- CROISSANT, A. (2002) Einleitung: Demokratische Grauzonen - Konturen und Konzepte eines Forschungszweigs. IN BENDEL, P. C., AUREL/RÜB, FRIEDBERT W. (Ed.) *Zwischen Demokratie und Diktatur. Zur Konzeption und Empirie demokratischer Grauzonen*. Opladen, leske + budrich.

- CUTLER, A. C., HAUFLE, V. & PORTER, T. (Eds.) (1999) *Private authority and international affairs*, Albany, NY, State University of New York Press.
- DING, X. L. (1994) Institutional Amphibiousness and the Transition from Communism: The Case of China. *British Journal of Political Science*, 24, 293-318
- DÖHLER, M. & JANN, W. (Eds.) (2007) *Agencies in Westeuropa*, Wiesbaden, VS Verlag für Sozialwissenschaften.
- DRAUDE, A. (2007) How to Capture Non-Western Forms of Governance. In Favour of an Equivalence Functionalist Observation of Governance in Areas of Limited Statehood. *SFB-Governance Working Paper Series*. Berlin, DFG Research Center (SFB) 700 Governance in Areas of Limited Statehood.
- DUCKETT, J. (2004) The evolving institutional environment and China's state entrepreneurship. IN KRUG, B. (Ed.) *China's Rational Entrepreneurs. The development of the new private business sector*. London and New York, RoutledgeCurzon.
- EDELING, T., JANN, W., WAGNER, D. & REICHARD, C. (Eds.) (2001) *Öffentliche Unternehmen. Entstaatlichung und Privatisierung?*, Opladen, Leske + Budrich.
- EISINGER, P. K. (1998) *The Rise of the Entrepreneurial State. State and Local Economic Development Policy in the United States*, Madison, University of Wisconsin Press.
- ERDMANN, G. (2002) Neopatrimoniale Herrschaft - oder: Warum es in Afrika so viele Hybridregime gibt. IN BENDEL, P. C., AUREL/RÜB, FRIEDBERT W. (Ed.) *Zwischen Demokratie und Diktatur. Zur Konzeption und Empirie demokratischer Grauzonen*. Opladen, leske + budrich.
- ERDMANN, G. (2007) Demokratisierung in Afrika und das Problem hybrider Regime. IN DÄUBLER-GMELIN, H. M., EKKEHARD/WALTHER, CHRISTIAN (Ed.) *Afrika - Europas verkannter Nachbar*. Frankfurt a.M., Peter Lang Verlag.
- FISHMAN, T. C. (2005) *China, Inc.: How the Rise of the Next Superpower Challenges America and the World*, Scribner.
- FRANCIS, C.-B. (2001) Quasi-Public, Quasi-Private Trends in Emerging Market Economies: The Case of China. *Comparative Politics*, 33, 275-294
- GARCELON, M. (1997) The Shadow of the Leviathan: Public and Private in Communist and Post-Communist Society. IN WEINTRAUB, J. & KUMAR, K. (Eds.) *Public and Private in Thought and Practice. Perspectives on a Grand Dichotomy*. Chicago and London, The University of Chicago Press.
- GORDENKER, L. & WEISS, T. G. (1995) Pluralising global governance: Analytical approaches and dimensions. *Third World Quarterly*, 16, 357-387.
- GORE, L. P. (1998) *Market communism: The institutional foundations of China's post-Mao Hypergrowth*, Oxford.
- GREVE, C., FLINDERS, M. & THIEL, S. V. (1999) Quangos: What's in a Name? Defining Quangos from a Comparative Perspective. *Governance*, 12, 129-146.
- GUO, L. (2007) China's New Cadre Evaluation System. *EAI Background Brief No. 324*. Singapore, East Asian Institute.
- HAAS, P. M. (2004) Addressing the Global Governance Deficit. *Global Environmental Politics*, 4, 1-15.
- HAITES, E. & YAMIN, F. (2000) The clean development mechanism: Proposals for its operation and governance. *Global Environmental Change*, 10, 27-45.
- HALL, R. B. & BIERSTEKER, T. J. (Eds.) (2002) *The emergence of private authority in global governance.*, Cambridge, Cambridge University Press.

- HAUFLER, V. (1995) Crossing the Boundary between Public and Private: International Regimes and Non-State Actors. IN RITTBERGER, V. (Ed.) *Regime Theory and International Relations*. Oxford, Clarendon Press.
- HU, A. G. Z. & JEFFERSON, G. H. (2008) Science and Technology in China. IN BRANDT, L. & RAWSKI, T. G. (Eds.) *China's Great Economic Transformation* Cambridge, Cambridge University Press.
- JAGERS, S. C. & STRIPPLE, J. (2003) Climate governance beyond the state. *Global governance. A review of multilateralism and international organizations*, 9, 385-399.
- JÄNICKE, M. (1990) *State-Failure. The Impotence of Politics in Industrial Society*, Cambridge, Polity Press.
- JEFFERSON, G. H. (2006) High Tech Regions in China: Pathways to Technology Diffusion or Centers of Increasing Technology Concentration? *PRIE-ITRI workshop on High Tech Regions: Sustainability and Reinvention, November 13-14*. Beijing.
- JIA, H. & LIN, Z. (Eds.) (1994) *Changing Central-Local Relations in China: Reform and State Capacity*, Boulder, CO, Westview Press.
- KECK, M. E. & SIKKINK, K. (1998) *Activists Beyond Borders: Advocacy Networks in International Politics*. , Ithaca, NY, Cornell Univ. Press.
- KOGUT, B. (1993) Introduction. IN KOGUT, B. (Ed.) *Country competitiveness: Technology and the organization of work*. Oxford, Oxford University Press.
- KOOIMAN, J. (2003) *Governing as governance*, London, Sage Publications.
- KRUGMAN, P. (1994) The Myth of Asia's Miracle. *Foreign Affairs*, 73, 62-78.
- KWONG, J. (1997) *The Political Economy of Corruption in China*, New York, M.E. Sharpe.
- LAM, T.-C. & PERRY, J. L. (2001) Service Organizations in China. Reforms and Institutional Constraints. *Review of Policy Research* 18, 15-35.
- LEE, P. N.-S. & LO, C. W.-H. (2001) Remaking China's Public Management: Problem Areas and Analytical Perspectives. IN LEE, P. N.-S. & LO, C. W.-H. (Eds.) *Remaking China's Public Management*. Westport, CT, Quorum Books.
- LEMONS, M. C. & AGRAWAL, A. (2006) Environmental Governance. *Annual Review of Environmental Resources*, 31, 297-325.
- LEUTNER, M. (2007) Kooperationsnetze und Akteure im semi-kolonialen China, 1860-1911. IN RISSE, T. & LEHMKUHL, U. (Eds.) *Regieren ohne Staat? Governance in Räumen begrenzter Staatlichkeit* Baden-Baden, Nomos.
- LIPSKEY, M. (1983) *Street-level Bureaucracy: Dilemmas of the Individual in Public Services*, New York, Russell Sage Foundation.
- LIU, X. & WHITE, S. (2001) Comparing innovation systems: a framework and application to China's transitional context. *Research Policy*, 30, 1091-1114.
- LO, C. W.-H., LO, J. M.-K. & CHEUNG, K.-C. (2001a) Institutional Reform in Environmental Governance in the People's Republic of China: Service Organizations as an Alternative for Administrative Enhancement. *Review of Policy Research*, 18, 36-57.
- LO, C. W.-H., LO, J. M.-K. & CHEUNG, K.-C. (2001b) Service Organizations in the Environmental Governance System of the People's Republic of China. IN LEE, P. N.-S. & LO, C. W.-H. (Eds.) *Remaking China's Public Management*. Westport, CT, Quorum Books.
- LO, C. W.-H. & TANG, S.-Y. (2006) Institutional Reform, Economic Changes, and Local Environmental Management in China: the Case of Guangdong Province. *Environmental Politics*, 15, 190-210.

- MAJONE, G. (2005) Strategy and Structure of the Political Economy of Agency Independence and Accountability. IN OECD (Ed.) *Designing Independent and Accountable Regulatory Authorities for High Quality Regulation*. Paris, 126-155.
- MASON, M. (2005) *The New Accountability*, London, Earthscan.
- MEYER, C. A. (1995) Opportunism and NGOs: Entrepreneurship and Green North-South Transfers. *World Development*, 23, 1277-1289.
- MORTON, K. (2005) *International Aid and China's Environment. Taming the Yellow Dragon*, London and New York, Routledge.
- NEE, V. (1992) Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China. *Administrative Science Quarterly*, 37, 1-27.
- NEWELL, P. (2008) Civil society, corporate accountability and the politics of climate change. *Global Environmental Politics*, 8, 124-155.
- NUNBERG, B. (1998) *The State after Communism*, Washington, DC, World Bank.
- OI, J. C. (1992) Fiscal reform and the economic foundations of local state corporatism in China. *World Politics*, 45, 99-126.
- OI, J. C. (1995) The role of the local state in China's transitional economy. *China Quarterly*, 144, 1132-1149.
- OI, J. C. (1996) The Role of the Local State in China's Transitional Economy. IN WALDER, A. G. (Ed.) *China's Transitional Economy*. Oxford and New York, Oxford University Press.
- OI, J. C. (1998) The evolution of local state corporatism. IN WALDER, A. G. (Ed.) *Zouping in transition: The process of reform in rural north China*. Cambridge, Harvard University Press.
- OSBORNE, D. & GAEBLER, T. (1992) *Reinventing Government. How the Entrepreneurial Spirit is Transforming the Public Sector*, Reading, MA, Addison-Wesley.
- OSBORNE, S. P. & MCLAUGHLIN, K. (2002) From public administration to public governance: public management and public services in the twenty-first century. IN OSBORNE, S. P. & MCLAUGHLIN, K. (Eds.) *Public Management: Critical Perspectives*. London, Routledge.
- PATTBERG, P. & STRIPPLE, J. (2008) Beyond the public and private divide: remapping transnational climate governance in the 21st century. *International Environmental Agreements: Politics, Law and Economics*, 8, 367-388.
- PFEFFER, J. (1972) Merger as a response to organizational interdependence. *Administrative Science Quarterly*, 25, 129-141.
- PFEFFER, J. & NOWAK, P. (1976) Joint ventures and interorganizational dependence. *Administrative Science Quarterly*, 21, 398-418.
- PIERRE, J. & PETERS, B. G. (2000) *Governance, Politics and the State*, London, Macmillan.
- POLLITT, C., TALBOT, C., CAULFIELD, J. & SMULLEN, A. (2004) *Agencies: How Governments do Things Through Semi-Autonomous Organisations*, Basingstoke, Palgrave MacMillan.
- QI, Y., MA, L., ZHANG, H. & LI, H. (2008) Translating a Global Issue Into Local Priority. China's Local Government Response to Climate Change. *Journal of Environment & Development*, 17, 379-400.
- RHODES, R. (1996) The New Governance: Governing without Government. *Political Studies*, 44, 652-667.
- ROSENAU, J. N. (1992) Governance, Order, and Change in World Politics. IN ROSENAU, J. N. & CZEMPIEL, E.-O. (Eds.) *Governance without Government. Order and Change in World Politics*. Cambridge, MA, Cambridge University
- RÜB, F. W. (2002) Hybride Regime – Politikwissenschaftliches Chamäleon oder neuer Regimetypus? Demokratietheoretische Überlegungen zum neuen Pessimismus in der

- Transitologie. IN BENDEL, P. C., AUREL/RÜB, FRIEDBERT W. (Ed.) *Zwischen Demokratie und Diktatur. Zur Konzeption und Empirie demokratischer Grauzonen*. Opladen, leske + budrich.
- SAICH, T. (2000) Negotiating the State: The Development of Social Organizations in China. *The China Quarterly*, 161, 124-141.
- SALAMON, L. M. (1987) Of Market Failure, Voluntary Failure, and Third-Party Government: Towards a Theory of Government-Non-profit Relations in the Modern Welfare State. *Journal of Voluntary Action Research*, 29-46.
- SAVAS, E. S. (1979) *Privatization. The Key to Better Government*, Chatham, New Jersey.
- SCHUBERT, G. & TETZLAFF, R. (1998) Erfolgreiche und blockierte Demokratisierung in der postkolonialen und postsozialistischen Weltgesellschaft - Eine Einführung. IN SCHUBERT, G. & TETZLAFF, R. (Eds.) *Blockierte Demokratien in der Dritten Welt*. Opladen, leske + budrich.
- SCHUPPERT, G. F. (2008) Von Ko-Produktion von Staatlichkeit zur Co-Performance of Governance. Eine Skizze zu kooperativen Governance-Strukturen von den Condottieri der Renaissance bis zu Public Private Partnerships. *SFB-Governance Working Paper Series Nr. 12*. Berlin, SFB 700.
- SICULAR, T. (1996) Redefining State, Plan and Market: China's Reforms in Agricultural Commerce. IN WALDER, A. G. (Ed.) *China's Transitional Economy*. Oxford, Oxford University Press.
- SOLINGER, D. J. (1992) Urban Entrepreneurs and the State: The Merger of State and Society. IN ROSENBAUM, A. L. (Ed.) *State and Society in China. The Consequences of Reform*. Boulder, Colorado, Westview Press.
- STARK, D. (1996) Coexisting Organizational Forms in Hungary's Emerging Mixed Economy. IN NEE, V. & STARK, D. (Eds.) *Remaking the Economic Institutions of Socialism: China and Eastern Europe*. Stanford, Stanford University Press.
- STELLA, P. (1992) *Tax Farming - A Radical Solution for Developing Country Tax Problems*, Washington, DC.
- STOKER, G. (1998) Governance as Theory: Five Propositions. *International Social Science Journal*, 50, 17-28.
- STÖLTING, E. (2001) Das Öffentliche an öffentlichen Unternehmen. IN EDELING, T., JANN, W., WAGNER, D. & REICHARD, C. (Eds.) *Öffentliche Unternehmen. Entstaatlichung und Privatisierung?* Opladen, Leske + Budrich.
- STRECK, C. (2007) The governance of the Clean Development Mechanism: the case for strength and stability. *Environmental Liability*, 2, 91-100.
- TENEV, S., ZHANG, C. & BREFORT, W. L. (2002) *Corporate Governance and Enterprise Reform in China. Building the institutions of modern markets*, Washington, D.C., World Bank and the International Finance Corporation.
- TULLOCK, G. (1967) The welfare cost of tariffs, monopolies and theft. *Western Economic Journal*, 5, 224-232.
- TULLOCK, G. (1993) *Rent-seeking*, Vermont, Edward Elgar.
- VAN DER GAAG, J. (1995) *Private and Public Initiatives: Working Together for Health and Education*, Washington, D.C., World Bank.
- VERHEIJEN, A. H. G. (2003) Public Administration in Post-Communist States. IN PETERS, B. G. & PIERRE, J. (Eds.) *Handbook of Public Administration*. London, Sage Publications.
- WADE, R. (1990) *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialisation*, Princeton, Princeton University Press.

- WALDER, A. G. (1995) Local governments as industrial firms. *American Journal of Sociology*, 5, 262-301.
- WALDER, A. G. (1996) China's Transitional Economy: Interpreting its Significance. IN WALDER, A. G. (Ed.) *China's Transitional Economy*. Oxford, Oxford University Press.
- WEINERT, R. (2001) Die Verflüchtigung des Politischen. Gemeinwirtschaftliche, genossenschaftliche und öffentliche Wohnungsunternehmen im Vergleich. IN EDELING, T., JANN, W., WAGNER, D. & REICHARD, C. (Eds.) *Öffentliche Unternehmen. Entstaatlichung und Privatisierung?* Opladen, Leske + Budrich.
- WHITE, G., HOWELL & SHANG (1996) *In search of civil society: market reform and social changes in contemporary china.*, Oxford, Clarendon Press
- WILLIAMSON, O. (1991) Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36, 269-296.
- WOLF, K. D. (2008) Emerging Patterns of Global Governance. The New Interplay Between the State, Business and Civil Society. IN SCHERER, A. G. & PALAZZO, G. (Eds.) *Handbook Of Research On Global Corporate Citizenship*. Cheltenham/UK, Northampton/MA, Edward Elgar.
- WONG, C. (2004) Toward a Future Vision of Public Service Unit Reform in China: An Analytical Framework. Washington, DC, World Bank.
- WORLD BANK (1996) From Plan to Market. Washington, DC, World Bank.
- WORLD BANK (2007) East Asia & Pacific Update. Washington, DC, World Bank.
- YOUNG, D. R. (1986) Entrepreneurship and the behavior of non-profit organizations: Elements of a theory. IN ROSE-ACKERMAN, S. (Ed.) *The Economics of Nonprofit Institutions*. New York, Oxford University Press.
- YU, T. F. (1997) Entrepreneurial state: the role of government in the economic development of the Asian newly industrializing economies. *Development Policy Review*, 15, 47-64.
- ZHANG, E. E. A. (1996) Shanghai shi gaige shiye danwei jingfei guanli tizhi de yanjiu [Research on the reform of the funding system for the service organizations in Shanghai]. Shanghai, Tongji University.
- ZHENG, Y. (1999) *Discovering Chinese nationalism in China : modernization, identity, and international relations* Cambridge, Cambridge University Press.
- ZÜRN, M. (1998) *Regieren jenseits des Nationalstaates. Globalisierung und Denationalisierung als Chance*, Frankfurt a.M., Suhrkamp.