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# **Environmental Governance under Authoritarian Rule Singapore and China**

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# **Environmental Governance under Authoritarian Rule**

## **Singapore and China**

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### **Abstract**

This paper considers the possibility of technocratic authoritarian rule to deal more effectively with environmental problems than liberal democracy by comparing Singapore, often regarded as the role model of eco-authoritarianism, with China which wants to follow the city-state's footsteps. However, a closer look at Singapore shows that the city-state's environmental record is only stellar in a utilitarian sense when it is profitable for the city-state. The picture is very different when we consider the near complete destruction of the small country's natural areas. In regard to China, such an approach would, however, be devastating as natural areas have already been reduced to a minimum. In addition, China does not even have effective institutions to deal with the massive environmental crisis the country is facing. Despite massive air and water pollution and heavy investments in new technologies, China has not been able to revert this dire situation. Instead, the reliance on "performance legitimacy" has resulted in an attempt to maintain massive economic growth by among other things increasing the consumption of China's growing middle class. The comparison thus demonstrates that technocratic authoritarianism is not a realistic option to deal with environmental problems.

### **Introduction**

Pollution, climate change, acid rain, desertification and other issues of environmental degradation are the negative by-products of economic development and progress over the last hundreds of years. The negative impact of economic growth has increasingly become visible and continues to spread and perhaps even accelerate, as we speak. The dismal forecasts have raised the possibility of an environmental catastrophe in the near future. This has given currency to those who are seeking radical solutions to our present dilemma. There have been a number of scholars, political activists, and others who have come to the conclusion that the present political institutions are incapable of averting the impending crisis. They consider an authoritarian regime as the best solution for this problem because it can decisively implement the necessary but unpopular measures (for instance: Heilbroner 1974; Ophuls 1977; Wells 2007; Shearman and Smith 2007). This stands in contrast to the majority opinion that claims that only a liberal democracy can adequately handle the environmental problems. The supporters of the democratic option point to statistical evidence that suggests that the environment fares better under democratic rule (for instance: Payne 1995; Barrett and Graddy 2000; Winslow 2005).

The goal of this paper is to contribute to this debate about the regime form by comparing and contrasting two very different authoritarian states, Singapore and China. The former has often been considered exceptionally successful in managing its urban environment and has therefore attracted the attention of those who argue for an authoritarian form of governance for the management of environmental problems. China, on the other hand, has been in the news for its massive environmental pollution. However, its progress in rapidly adopting green technologies and the public declaration of war against pollution in early 2014 has raised hopes of a rapid improvement of the environment. Chinese policy-makers have also reinforced its desire to learn from Singapore, which includes both the emphasis on one-party rule and the perceived sustainability of the small Southeast Asian state. This has raised the hopes among some for the emergence of an authoritarian alternative to environmental governance in the form of a green dictatorship in the future.

Reality, however, shows that an environmental dictatorship is not a realistic possibility. In fact, authoritarian regimes also rely on economic growth for their support and thus environmental concerns are always sidelined. This is even the case in Singapore, which even though it has been called the “Garden City,” has a dismal record in some aspects of environmental protection such as wildlife preservation. It is only Singapore's small size and its attempts to achieve self-sustainability which have driven the environmental politics. In China, this is completely different, where size has required administrative decentralization, which has made efforts to limit environmental problems much more difficult. Moreover, in comparison to Singapore, China lacks the strong institutions necessary to implement tough environmental regulations. Finally, even though the economies of both countries have profited greatly from government-linked corporations and foreign investments, Singapore's economy has moved to financial services and trade while China still relies to a large extent on manufacturing of cheap products for which the strict implementation of environmental regulations are a threat. The main argument therefore is that a technocratic form of authoritarianism is very unlikely to become a potent alternative for solving the world's most pressing environmental

problems.

### **Democracy vs. Authoritarianism**

Even though most of the statistical research shows that the environment tends to fare much better under democracy than it does under authoritarian rule,<sup>1</sup> the argument over whether some form of technocratic eco-authoritarian regime might be better able to target the growing environmental threats has not disappeared. First of all, I want to state the arguments that have been made in favor of democracy. Then I will continue with the problems of modern liberal democracies. This criticism has led to the argument that a special kind of authoritarian regime is needed in order to successfully manage the environmental crisis.

Today, most scholars are in agreement that democracy is better capable of protecting the environment than authoritarianism. For instance, Winslow (2005) summarizes the following reasons from the academic literature. First of all, democracy restricts the possibilities for power centralization and therefore limits a small economic elite from profiting from environmental degradation. Elected leaders are, in contrast to those in closed authoritarian regimes, accountable to the electorate and cannot as easily profit from environmental destruction. Furthermore, the participation of the public in policy making can draw attention to environmental problems. This is enhanced through greater access to information, which is aided by freedom of speech and which allows people to get aware of environmental problems in their neighborhood. In addition, democracies generally are more transparent. For instance, a Freedom of Information Act, which has been enacted in 85 countries, allows citizens access to unclassified governmental information. Another aspect of democratic rule, Winslow argues, is the existence of a truly independent and sometimes confrontational environmental movement. Environmental non-governmental organizations (NGOs), which are allowed to freely operate, can not only draw attention to

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<sup>1</sup> Midlarsky (1998), however, showed in his statistical analysis that democracy is not as closely associated with better environmental politics when the study includes democratic states in the developing world.

environmental problems but can also drive the public agenda. Another important aspect of democracies is the legal system, which allows individuals to sue the polluters through civil litigation. Finally, from an international perspective, the sharing of information between democracies and the development of international treaties also benefit the protection of the environment.

Despite these advantages, some features of modern liberal democracy, or polyarchy, are also obstacles for effective environmental governance. As the critics of democracy have observed, democracy's close association with capitalism contains a number of pitfalls. First of all, while freedom of speech guarantees everyone a voice, those with more money generally can speak louder. In effect, this means that lobbyists of powerful corporations are often successful in obstructing policies that could be beneficial to the environment when they are perceived to have a negative impact on corporate profits. Environmental NGOs on the other hand do not have as many resources. Secondly, as Shearman and Smith (2007) point out, modern democracy requires economic growth to generate public support. Without growth it is difficult to maintain low unemployment rates. Furthermore, the people demand the right to buy consumer products, which leads to wastefulness. This brings us to another related problem, namely that democratic elections tend to make politicians focus on short-term goals instead of long-term planning because their primary goal is re-election. Moreover, it is questionable whether the citizens are really able to deal with the freedom of information. Critics of liberal democracy argue that the people are incapable of understanding the many technical intricacies involved in the processes of environmental management. It is therefore not possible for the electorate to decide over these issues. Finally, decision making is usually relatively slow as it involves the participation of a number of different veto players.

The problems of democracy and the fear of an environmental catastrophe have motivated some scholars to advocate an authoritarian alternative to avert this crisis. This discourse occurred in the U.S. mainly within the context of environmental movements during the 1970s. Most

prominently, Heilbroner (1974) and Ophuls (1977) have argued that the environmental crisis was so grave that it required a strong, authoritarian government to be solved. In their opinion, ordinary individuals would never accept the kind of measures that are needed to overcome the many challenges.

Heilbroner was especially concerned with the inability of humans to sustain the present economic growth. He feared that the rising population, which is distributed unevenly on the planet, will lead to conflicts between the developed and the developing world over the world's increasingly scarce resources. In his opinion, the problem of population growth could only be solved by a “government with dedicated leadership, a well-organized and extensive party structure, and an absence of inhibitions with respect to the exercise of power to bring the population flood to a halt” (Heilbroner 1974: 38). This can be an authoritarian or even a revolutionary regime, which shows that his ideas were formulated at the height of the Cold War because his conception of an environmental dictatorship is guided by his impression of the planned economies in socialist countries. In his opinion, the freedom of expression would have to be sacrificed, because it allows the expression of ideas that are a threat to survival. This would include people who raise doubts about problems such as global warming and climate change, a problem which Heilbroner foreshadowed as a result of the heat generated by massive population growth.

In contrast, Ophuls has a much more optimistic vision in mind. He argues for the creation of a “steady state” which he defines as one “that has achieved a basic long-term balance between the demands of a population and the environment that supplies its wants” (Ophuls 1977, p. 13). Some key elements of this type of state are communalism, technological planning, material frugality, modesty, greater cultural diversity, greater decentralization and local autonomy (because that costs less energy), a tendency toward holism, genuine morality, and a return to pre-modern values. He argues that the present market orientation of politics must be abandoned.

Even though today the consensus argues that democracy is preferable over authoritarianism,

some authors continue to claim that an authoritarian form of government would be better able to protect the environment. Wells (2007) argues that all the present political systems are deficient in producing effective mechanisms for dealing with environmental threats and he instead proposes a “strong government for a crowded planet.” Beeson (2010) moreover argues that the social conflicts which will be the result of growing environmental challenges will strengthen the authoritarian regimes in East and Southeast Asia, which may even be better able to deal with these problems. Similarly, Shearman and Smith (2007) maintain that mankind can only survive the environmental crisis if it gives up many of its personal liberties. In their opinion, the principal fault of democracy is its link to capitalism and the main goal must be a no-growth economy because that is the only way mankind can survive. While Shearman and Smith recognize the fact that existing authoritarian regimes have performed worse than democracies, they envision an authoritarian meritocracy that can achieve the goals democracies have thus far failed to accomplish. In their opinion, an ideal political system would be governed by an “altruistic, able, authoritarian leader, versed in science and personal skills” (Ibid.: 13) who could possibly overcome the existing environmental crisis. This argument is partially based on the author's perceptions of Singapore, a self-proclaimed meritocracy ruled by a small technocratic elite. They assert that “a Singapore system could be developed to drive vital environmental outcomes in the interests of humanity” (Ibid.: 126). A similar argument can also be found in the concept of “deep ecology” which suggests that decision-making should rely only on science (Robbins, Hintz, and Moore 2010).

Let us now turn to Singapore in order to first understand whether that assertion is true and secondly whether this “model” can be adapted to other countries. With other words, does the city-state really represent a form of environmental governance under authoritarian rule which is superior to the democratic alternative and can be replicated to other countries?

### **Singapore's authoritarian “garden city”**



Singapore, a small city-state in Southeast Asia with roughly 4.7 million inhabitants and an area of 274 square miles (710 square kilometers), epitomizes the authoritarian technocracy that some environmentalists such as Shearman and Smith have envisaged in their writings. The city-state claims to recruit its leaders mainly from the highest achieving scholars. Technocratic decisions based on scientific evidence are considered superior to other forms of decision making. It is therefore not surprising that Singapore's democracy has been hollowed out, leaving only procedures to generate a certain degree of electoral legitimacy for the ruling party.

Starting in the 1960s, the government decided to develop a "Garden City" which combines beautiful natural gardens with clean air that is incomparable to other cities in Asia and rivals places in Europe (unless, of course, there are massive forest fires in Indonesia). From the first tree-planting campaign in 1963, the government has been instrumental in developing and steering an environmental program for the city-state. With independence in 1965, the government introduced the Green City Concept, which provided for the large scale planting of trees and scrubs. In 1972, the government formed the Ministry of the Environment and Water Resources (MEWR, until 2004 the ministry was known only as Ministry of the Environment), which holds a very prominent position within the government (Zhou 2001). Since 1990, the government conducts the annual Green and Clean Campaign to educate people against polluting the environment. The Singapore Government has been intent on protecting drinking water reservoirs, reclaiming waste water, and most recently also recycling. Former Prime Minister and founding father Lee Kuan Yew took credit for the government's environmental policies when he asserted in 1995: "Singapore today is a verdant city, where abundant greenery softens the landscape. This was no accident of nature. It is the result of a deliberate 30-year policy, which required political will and sustained effort to carry out" (qt. in: CLAIR, 2001). Savage and Kong (1993: 38) also argue that Singapore's success is due to "[e]nlightened elites and decision makers and firm government (which) are the only ways to ensure the successful management and sustenance of viable urban ecosystems."

There are two key aspects of Singapore's success in its environmental protection efforts. First of all, Singapore has a high degree of state capacity to enforce environmental “regulations and direct controls using legal and fiscal measures” (Kong 1994: 5). In effect this means that the government is capable of exacting high penalties from violators. This has earned the city-state the reputation of a “fine city.” Of course these fines do not only punish those who violate environmental rules but rather target a wide range of unacceptable behavior, such as eating and drinking on the MRT, Singapore's subway, or the failure to flush a toilet. This high level of state capacity with an effective legal system can be traced to the British colonial regime, which ruled Singapore as a crown colony until 1959. In general, most of the institutions such the parliamentary system are still in place today, even if many of them have been reformed with the goal to more effectively rule the country and strengthen the ruling party's power.

Secondly, its environmentalism has been driven by a sense of vulnerability as a tiny city-state with no hinterland and very few resources. Because of Singapore's small size, the government adopted a development strategy that was based in part on land reclamation, the building of high rises, and the use of nearly every space for development. Furthermore, Singapore's geographical location between two potentially hostile neighbors (Malaysia and Indonesia) provided the main motivation for the city state's environmental programs. For instance, water conservation and reclamation efforts were not only introduced because of their environmental merits but also because they were targeted at reducing Singapore's dependency on Malaysia, which provides the majority of Singapore's water demands. The rulers felt that this dependency allowed its neighbor too much power and influence. Repeated arguments about the price of water are a testament to this.

Despite Singapore's appearance as an environmental leader, there are quite a number of shortcomings which make it difficult to transfer Singapore's experience either in principle to the whole country or even to local urban areas. First of all, Singapore's environmental efforts are mainly limited to certain areas of environmental protection, such as beautification of the city or

clean water but largely neglect other areas such as climate change or protection of rare animal species. Despite emphasizing recycling, the city-state has so far failed to implement a successful program for the massive waste, which is presently burned in four incinerators and the ash is consequently dumped on an artificial offshore island. Unlike Taiwan, Hong Kong or China, Singapore has not yet implemented any restrictions on the massive use of plastic bags. This demonstrates that economic concerns trump environmental considerations.

A clean environment was also seen as necessary for achieving economic growth, which has been the central concern of Singapore's leaders ever since the city-state was thrown into independence in 1965 (Chia and Rahman 1991). Singapore's claims to a garden city therefore did not primarily result from its emphasis on environmental goal but are rather an outgrowth of the government's development plan that aims for total control of the natural environment. As the city-state aimed to become a major trading and finance center based mainly on the service industry, it could only rely on highly trained professionals, many of which were attracted from foreign countries. Clean air and beautiful gardens were thus part of a strategy to get many multi-national corporations and their employees to settle in Singapore and establish regional headquarters.

Despite its green appearance, Singapore is also a developmental state which emphasizes economic development in its technocratic decision-making process. In order to guarantee Singapore's long-term survival, the Singapore government has consistently prioritized economic concerns and environmental concerns have played second fiddle (Choon 2010). According to a 2010 study, the high density of land use and the concomitant loss of biodiversity and forests even resulted in making the city-state the worst environmental offender among 179 countries (Bradshaw, Giam, and Sodhi 2010). Manicured lawns, regularly planted trees and neatly arranged public parks were seen as superior to mosquito infested swamps which however house more animal species than there are in the entire United States of America (George 2000). Moreover, the heavy focus on technological solutions and the lack of influence of civil society has created new environmental and

social problems which potentially undermine stability and sustainability (Wong 2012).

Because the preservation of the natural environment only played a role when it was conducive to economic growth or national security, a small environmental movement has emerged despite significant restrictions on independent activism. In the early 1980s, disapproval of the government's disregard for the use of natural habitats for the development of various projects led to growing interest in the environment. An increasing number of people became members of the Singaporean branch of the Malayan Nature Society, which conducted field trips to watch birds. Eventually, the rising interest in the nature led to a clash between environmental and developmental concerns. In 1986, the bird watchers had found in Sungei Buloh an area of mangrove and ponds that housed 126 different species of birds. The environmentalists carefully documented the wildlife under extreme time pressure because the government had already scheduled the area for the development of an agro-technology park. In a rare move, the government granted the conservation of the habitat when it was given nature park status in 1989 (Wee and Hale 2008). The only other time the Nature Society (Singapore) (which was previously known as the Malayan Nature Society) scored a similar success was in 1992 when the government agreed to drop plans for the development of a golf course on Lower Peirce Reservoir.

As a result of these two successful campaigns of the environmental movement, the once almost completely technocratic state had to accept the greater involvement of the public. Maria Francesch-Huidobro (2008) has suggested that Singapore was undergoing a process of liberalization in the policy field with the development of a “disciplined governance” structure, which allowed environmental NGOs some limited influence on the policy making process even though the government did not accept them on an equal level. The Singapore government has been intent on creating at least the appearance of governance structures. For instance, the so-called Sustainable Singapore blueprint was established, according to its website, “jointly with people, private and public sectors in Singapore.” For this, the government held meetings in the form of the Inter-

Ministerial Committee on Sustainable Development which joined civil servants from various agencies with members of the public, leaders of non-governmental organizations and businesses, members from academia, media editors, and mayors. Furthermore, the government also sought input through the Internet and its feedback agency REACH (Reaching Everyone for Active Citizenry @ Home).

The collaboration of government, NGOs and industrial groups, however, created significant problems not only for the technocratic decision making process but also for an authoritarian regime reluctant to devolve power. It is therefore not surprising that there are few examples in which Singapore's regime has been willing to transfer influence to these groups. The government does not necessarily consult interest groups before making policies, such as in the destruction of precious habitats. Singapore also does not have a Freedom of Information Act, which would allow the activists to get information from the government. Furthermore, the government's idea of civil society groups is that they should serve the government and not oppose it. As a response, nongovernmental groups in Singapore have for a long time accepted the government's dominance and, if not, have faced serious obstacles ranging from limits of the group's access to funding from foreign sources to the rejection of registration applications. Since its founding, the Nature Society of Singapore (NSS) has therefore rarely engaged in acts of contentious politics as a method of their campaigns. Moreover, its regular reports mainly consist of scientific research in order not to be seen as "political," which in the government's view is the sole domain of political parties and political groups. In order to have some influence, the group has therefore at times been willing to compromise with the government in regard to the environment (see for instance: Kong 1994). A good example for this is the controversy surrounding the proposed reclamation of Chek Jawa, wetlands with a rich marine biodiversity, on which the NSS refused to take sides (Wee and Hale 2008). The planned project was instead stopped by popular opposition which occurred in response to media and Internet publicity that had attracted many visitors, including government officials. The

close relationship between the government and the environmental movement also became evident when the former president of the NSS, Geh Min, accepted the nomination as a nominated member of parliament in 2004 while she was still the head of the group (Ortmann 2010: 176). As with most other aspects of Singapore politics, the successful co-optation of the environmental movement had contributed to the stability of the one-party soft-authoritarian regime under the PAP.

As a consequence of the growing politicization of Singapore in recent years, this has significantly changed as civil society groups are increasingly willing to challenge government policies. This change in the political culture became apparent in 2011 when both the parliamentary and presidential elections in that year were the most hotly contested elections in the history of independent Singapore. While the ruling party's overall popular vote only slightly declined to 60.1 percent and it could maintain over 90 percent of all the seats, the opposition was able to defeat the ruling PAP in one Group Representation Constituency, which was once believed to be nearly impossible (and which many suspect had been a tactic to reduce the electoral chances of the opposition). Moreover, the presidential candidate favored by the ruling party only barely won his contest with only 35.2 percent over 34.85 percent of his nearest contender. While the opposition's victories may not have been substantial, Singapore society has been significantly transformed. In regard to the environmental movement, activists were spurred into action in response to the government's decision to build an eight-lane highway through Bukit Brown, an ancient Chinese cemetery of high ecological value and biodiversity as well as a precious heritage site. In response, NSS has been willing to return to a more confrontational approach by using signature campaigns and walks to draw attention to the road construction. When the government came out with its final decision, the government tried to compromise with the activists by ameliorating the impact of the road on the cemetery through a construction of a bridge over parts of the area. This did not, however, placate the activists as the NSS joined with six other nongovernmental groups to protest this decision and formally demand a moratorium on the construction plans to which the government

has yet to reply.

Despite these shortcomings, Singapore has drawn attention for as a role model for environmental management in developing countries. As Achim Steiner, the Executive Director of the United Nations Environmental Programme, notes: “Singapore provides an exciting example of how good governance can ensure the integration of environmental sustainability into city planning and the pursuit of economic development” (qt. in: Ministry of the Environment and Water Resources 2008). The proponents envision an enlightened authoritarian government which single-handedly enacts and implements environmental policies. By doing so, it co-opts the environmental movement and makes it a tool of the government. It thus strengthens the legitimacy of the ruling elite, which can point to an impressive and forward-looking record of environmental protection. Could China learn from Singapore's technocratic regime? In the following, I will show why it is very unlikely that China can adopt such an approach.

### **China's attempt to learn from the “Singapore model”**

With the rise of China, an increasingly technocratic ruling elite, and the recent massive investments in renewable energy, successful reforestation efforts and the focus on the construction of eco-cities, optimists believe China could one day become the leader of environmental protection in the developing world. The World Bank, for instance, has faith in China's enormous efforts to develop alternative energy sources and thus reduce emissions, which would make it an example of how it is possible to combine economic development and environmental protection by 2020 (Wassermann, 2009). Similarly, the UN climate chief, Yvo De Boer, claimed in September 2009 that China is about to become a global leader in dealing with climate change when it announces its emission targets at the climate conference in Copenhagen in December (Foster 2009). A number of people, including David Shearman and Mark Beeson, have therefore argued that China's authoritarian system seems to be better able to cope with environmental problems than democratic regimes

because it can implement policies without the difficulty of a prolonged decision making process. Shearman (2008), for instance, lauds the recent ban on free plastic bags in China as a sign of the state's ability to effectively implement decisive action when democracies need years of arguing to come to similar conclusions.<sup>2</sup> Moreover, Beeson (2010: p. 289) argues that authoritarian China “has arguably done more to mitigate environmental problems than any other government on earth” by introducing the one-child policy that reduced population growth. Finally, China's supposed progress in some areas such as clean energy has made it the role model for developed and developing countries (Remais and Zhang 2011).

From the perspective of environmental governance, China has, however, long been considered a negative example. The destruction of the environment in China dates back centuries as man-made human disasters have repeatedly plagued the empire. Chinese emperors of various dynasties believed that they could control nature by building massive irrigation systems for which they deforested a large part of the country and by focusing on massive population growth because a large population showed strength and guaranteed large armies. These policies were often followed by large droughts, famines, and floods that killed thousands and perhaps even millions of people. Some of the most detrimental policies occurred in the 20<sup>th</sup> century during the reign of Mao Zedong. The Great Leap Forward, which was meant to help China advance and perhaps even overtake the Western world, was actually a disaster both to humans and to the environment. For instance, millions of people died because of the consequences of ill-conceived farming methods.

After the end of the disastrous Cultural Revolution, the Chinese leadership decided in 1978 to focus on the economic development of the country. This transformed the country from a poor third world country to a developmental state with enormous success. Rapid economic growth was, however, often achieved without regard to sustainability and environmental protection. Elizabeth Economy (2005) details in her book *The River Runs Black* the environmental degradation in China.

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<sup>2</sup> Shearman, however, fails to mention that China did not pioneer the ban on free plastic bags but instead adapted the practice from a democratic Taiwan.



In stark details, she accuses the Chinese government and industrialists of disregard for the environment in their endeavor to become one of the most successful economies in the world. Twenty of the thirty most polluted cities in the world can be found in China. 400,000 people die of pollution related diseases each year and one third of Chinese territory is affected by acid rain each year (Economy 2005). As China is the largest consumer of coal and car ownership has greatly multiplied in recent years, it has also become the largest emitter of carbon dioxide, which contributes to global warming.

Until the 1970s, the Chinese government advocated an approach that focused on economic development at the expense of the environment. The argument rested mainly on the belief that if western countries could pollute their environment during economic growth, China had the right to do so as well. Any criticism was considered an attempt of Western powers to deny China its right to develop. This started to change toward the end of the decade when it was impelled by the international community to at least provide some measures against the increasing pollution. Already in 1979, the government introduced the Environmental Protection Law for trial implementation. Since then, the Chinese government has established a large network of environmental agencies at various levels of government and enacted many environmental laws and regulations. The issue of environmental protection has increased in importance over the years until sustainable development has become the new keyword under the Hu Jintao and Wen Jiabao administration. Environmental protection has now become an important priority for the government.

However, despite the growing salience of environmental problems and Chinese efforts to learn from successful experiences such as Singapore, the country's environmental governance continues to be far from effective. Unlike in Singapore, the implementation of environmental rules in China remains very weak. This is due to a number of reasons such as the emphasis on economic growth, the relatively small fines for violators, vague laws and regulations, conflicts between different government departments, and the administrative decentralization which has resulted in a

lack of influence of the central government over local environmental policy implementation. All of these aspects contrast sharply with Singapore.

China's huge size has made some form of administrative decentralization necessary, which while it has been conducive to economic growth, has obstructed the effective implementation of many environmental regulations. This is due to the great fragmentation within the Chinese political system that undermines any rapid response from the center (Gilley 2012). Since the local environmental institutions depend on the local government for financial support, they generally do not oppose the local administration even if that means the continuation of environmentally hazardous undertakings. Furthermore, local administrators are often reluctant to implement measures if they are designed to reduce their influence. Instead of fully complying with already vague central legislation, local administrators and cadres develop their own mechanisms to deal with central policy. In this regard, it is especially problematic that local governmental officials depend to a large extent on the local industry for their own profits as well as their performance assessments. In addition, local officials are closely linked to the companies they are supposed to oversee through close networks of *guanxi*, which is a special form of relationship culture between Chinese. Accusing a company of environmental pollution, furthermore, will cause this company to lose face, which governmental officials will generally try to avoid (Ma and Ortolano 2000). Due to strong competition with other localities, local officials, moreover, often only pay lip service to environmental protection efforts and continue to prioritize economic growth. An attempt to change this by introducing Green GDP in order to measure the environmental performance of local administrators failed partly because local officials feared that their overall performance assessments would suffer (Johnson 2008).

At the same time, it is obvious from some of the progress that the Chinese government has been able to implement some environmental policies. This suggests that some policies can be implemented more effectively than others. Lieberthal (1997) has proposed three criteria that any

central directive must fulfill to achieve compliance at the local level: all the top leaders must agree on the issue, they need to prioritize it and the compliance must be measurable. With the ascension of the more technocratic leadership under Hu Jintao and Wen Jiabao, China's leaders have adopted sustainable development and environmental protection as a core aspect of their developmental strategy. In this context, a 2006 State Environmental Protection Administration (SEPA) report showed that the damage from environmental pollution had a strong negative impact on economic growth in China (Chan et.al., 2008). Environmental protection thus has increasingly become a priority for the Chinese government and it now largely fulfills the first two requirements. However, in terms of environmental legislation, the last aspect, namely measurability, is the most challenging aspect. While the development of renewable energy or the planting of trees is quantifiable, controlling air and water pollution is much more difficult because it cannot be easily attributed to a single territory and poor monitoring makes it next to impossible to gain accurate data. In addition, the fear of losing face often obstructs an estimate of the true extent of the pollution, which became evident in the call on the American embassy in Beijing to stop releasing environmental data which is consistently worse than the official data. The lack of transparency is, therefore, also a serious obstacle for the Ministry of Environmental Protection in its effort to implement environmental regulations. It has thus encouraged the media to investigate cases of serious environmental pollution. Additionally, at least in one instance in 2009 the government even ordered the Chinese city of Shenzhen to become more accountable to the media (*BBC News*, Sept. 16, 2009).

Because of underdeveloped accountability and correction mechanisms at the local level as well as increasing diversity in policy implementation, the central leadership has decided to strengthen the central institutions in charge of environmental protection, which may well have been a lesson from Singapore's highly centralized administration. This pattern stands in clear contradiction to previous reforms that have sought to achieve flexibility through greater decentralization (Mol and Carter 2006). However, some academics such as Lang (2002: 121)

advocate for more centralization: “in China the central government is the principal locus for the initiation that would protect the nation's cities and agricultural regions from floods and other ecological disasters.” The most obvious sign of the recentralization of environmental policy is the ascending status of China's environmental agency, which in 2008 was transformed from the State Environmental Protection Administration (SEPA) to the Ministry of Environmental Protection (MEP) in 2008. Only ten years earlier, SEPA had been upgraded to ministerial status but had not been on the same level as other ministries. Since the MEP is one of only ten ministries, it now has a greater status within the central government. The feeble centralization efforts have, however, not yet increased the level of control or influence over lower level Environmental Protection Boards because they still depend on local governments for their funding.

Besides the lack of effective implementation, China's size clearly obviates a sense of vulnerability within the ruling elite comparable to Singapore. Nevertheless, it has become increasingly important for governments at all levels to realize the urgency of the environmental situation which can most effectively be achieved through public pressure. While I have already mentioned that the central government has recognized the risks of environmental degradation, many local administrators have yet to follow suit. In this regard, the media and nongovernmental organizations have started to play a growing role in overcoming local resistance to anti-pollution efforts. In 1996, spurred by the possibility that NGOs need not challenge the central government as has been the case in Singapore, the Chinese government allowed and even promoted the development of NGOs, which the government has sought to control. Despite restrictions, the central government has come to believe that civil society groups should be encouraged to take action against polluters and disclose activity that violates Chinese environmental legislation. As Josephson (2005) argues, only when citizens can mobilize and make their interests known will environmental concerns be heard. The number of citizen complaints, petitions, and protests have greatly increased over the years (Jun 2003). However, an environmental movement has not yet emerged and there are

no signs that it will in the near future (Stalley and Yang 2006).

Another potential avenue for increasing pressure on local governments has been the media. At times, reports of severe environmental damage have been published in the national papers and the Internet, which has forced local officials to respond (Zhang 2008). While the commercialization of the media has also created new avenues to report about issues that were previously ignored, the Internet and its microblogs have introduced many new ways to quickly publish information on environmental problems. However, the revelation of occasional environmental scandals in the press obfuscates the systemic and institutional reasons for the massive environmental crisis. Moreover, censorship as well as self-censorship of the press, the lack of information available to journalists, and the oftentimes close relationship between the media and polluting industries also place severe restrictions on the possibility that the media could become a sustaining force for the environment (Watts 2012).

Finally, the government has also become aware of the need to strengthen the legal system in order to provide a greater check on local governments and industries. If citizens are able to file lawsuits against polluters, it raises the stakes for noncompliance. The growing number of lawsuits, which have mainly tried to get compensation for victims of pollution, have led some to suggest that there should be courts that specifically deal with environmental issues (Shi and Zhang 2006). However, while China has made some progress in legal reform, it is still very far from implementing a rule of law regime similar to Singapore or other developed countries. In particular, it is almost impossible to bring about public interest litigation, which is often necessary in cases of environmental destruction (Ye 2008).

While the Chinese government has made some progress in terms of the environment, only systemic changes that deal with the administratively decentralized yet politically centralized system can successfully deal with the massive environmental problems. Because economic growth continues to be the main legitimation of the authoritarian regime and environmental protection

efforts are expensive and often hard to measure, it is unlikely that China will soon overcome the present dilemma. The technocratic Singapore model does not pose a real alternative for China because the premise of its environmental governance approach also prioritizes economic development and not the protection of the environment. The belief that any regime could implement a strategy that is environmentally sound yet politically unpopular is not tenable. In order for environmental measures to be effective, they need to have broad-based support not only among the ruling elite but also among the population.

As a consequence of the growing importance of environmental concerns, Chinese scholars and administrators have closely studied the environmental politics of other countries. In 2006, the government established two think tanks or advisory committees within SEPA: the State Environment Counsel Committee and the Science and Technology Committee. Among the countries most closely studied are Germany, Canada, Japan, and Singapore. The latter, in particular, has been of interest to the Chinese because of its perceived cultural similarities, similar developmental experience, and its clean environment. It is noteworthy that Deng Xiaoping personally declared China's interest in learning from the city-state during his Southern Tour in 1992 when he stated "Singapore's social order is rather good. Its leaders exercise strict management. We should learn from their experience, and we should do a better job than they do" (qt. in: Kristof 1992). According to the Suzhou Industrial Park Committee (2004), which administers the first major Sino-Singaporean cooperation, the senior leader was impressed by the city-state's record as a "beautiful, clean, and dynamic garden city." As a consequence, Singapore has often been used as a role model despite its obvious differences in terms of size. Proponents of Singapore's approach, however, tend to emphasize the common ground between the two countries such as Yuan (2010) who sees similarities in Singapore's rapid development between 1960 and 1980. In particular, a number of cities have evaluated the Singapore experience more closely such as Shanghai (Wu 2007), Xiamen (Yue 2009) or Taicang (Yang 2012). The reason is mainly that Singapore seems to have found a way

to effectively combine economic development with environmental protection under the strong leadership of a ruling party. It fits well with Chinese ideas that a technocratic solution by enlightened leaders provides the most useful method of dealing with the environmental challenges, which, even though it should include public participation, is clearly driven by the government (Wu 2007).

The attempt to copy the Singapore experience and adapt it to the Chinese context have culminated in the construction of the Tianjin Eco-City, a cooperation project between Singapore and China which started in 2007 and aims to export Singapore's approach to urban development. The developers believe that the ideas behind the city can be replicable to other cities in China and even the world and scalable to even bigger places. Its official vision is to be a “thriving city which is socially harmonious, environmentally-friendly and resource-efficient – a model for sustainable development” (Government of Singapore 2012).<sup>3</sup> Despite its moniker Eco-City, the project primarily aims to export Singapore's pragmatic approach rather than an experiment in complete environmentalism.

### **Conclusion: The regime question**

A central question of this paper was whether there might be an authoritarian alternative to liberal democracy that is better able to deal with the enormous environmental challenges. The comparison of the two cases demonstrates that authoritarian regimes are likely to succeed only under exceptional circumstances because environmental protection must conform with economic premises and the most important aspects of successful environmental governance are the ability to effectively implement environmental regulations coupled with some form of pressure which can compel the government to act.

The case of Singapore shows that successful environmental politics is neither the result of

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3 [http://www.tianjinecity.gov.sg/bg\\_intro.htm](http://www.tianjinecity.gov.sg/bg_intro.htm)

the regime's authoritarian rule nor its environmentalist convictions. Instead, the effectiveness of the state is due to Singapore's size and its heritage as a British colony which laid the foundation for the effective policy implementation. Furthermore, the greening of the city-state occurred entirely out of economic self-interest. Since Singapore is a tiny island state without a hinterland, land is scarce and being attractive to international business is crucial. Secondly, the government always closely aligned itself with the business community, which is largely government-linked or multinational. As such, it does not have to force unpopular measures against any powerful opposing groups. At the same time, environmental concerns that contradict with the developmentalist notions of the government are ignored. This is reflected in its approach to the destruction of the last habitats of rare species because of the need for space. As a consequence, nature organizations have demanded the protection of wildlife and the Singapore government has realized that establishing some form of alliance with these groups is needed to strengthen their legitimacy.

At the same time, China demonstrates the harmful consequences of authoritarian rule. A number of institutional conditions are restricting the effective implementation of environmental regulations. Most importantly, administrative decentralization, the need for measurability of the success of local administrators and close relationships between regulators and those regulated have restricted the ability of the central government to implement its environmental rules. Clear guidelines and an effective legal system are also missing. Moreover, China is a huge and diverse country that clearly does not have the same conditions as a city-state. Therefore, it is crucial for activists to be able to pressure the different levels of government to become more environmentally friendly and for the media to investigate environmental problems. Unfortunately both the press and environmental activism are greatly obstructed by the authoritarian political system, which creates significant hurdles for effective environmental management.

In summary, authoritarianism, with its lack of transparency and restrictions on environmental activism, tends to negatively impact both awareness of environmental destruction and the



implementation of preventive regulations. Generally speaking, at least in larger countries, liberal democracy, despite its problems, has a much better chance of conducting sound environmental governance because public pressure forces governments to introduce more stringent legislation and the implementation process can be monitored. Singapore's effective environmental politics depends entirely on the small size of the city-state and only succeeds when it conforms with its developmental agenda. The idea of a no-growth environmental dictatorship is therefore merely wishful thinking.

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