Covalence Intern Analyst Paper

Economic Boom at the Tremendous Expense of Environment and Society

The Contempt of Environmental Laws and Standards by Chinese Companies

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Introduction

With a population of over 1.3 billion people, China still holds the largest share of the world population. It is a country that can be called exceptional. Not just because of its size and fast growing population, but also due its lifestyle, dialogues with other countries, "communist" government and relationship with the environment. Even though China's GDP growing rate will fall from current 10% to 6.5% (Haltmaier), there is no question about its enormous role in the world economy. The questions rather are; how did the Chinese gained such growth and important role? What are the key players to draw multiple western companies to invest in and shift production to China? And what are the drawbacks of the tremendous industry? The latter will be the main focus of this paper, particularly the role of pollution. It is certain that China's regulations and standards heavily differ from developed countries. China is still considered a developing country inter alia because of its low per capita income and regions of high poverty rate. For many people in poverty the living conditions will not change soon, but rather will get worse because of ignorance of Chinese companies. The Chinese government, companies and industries sacrifice the sustainability of the environment to reach an economic boom, causing tremendous damages on civil society. The environment and lower class people are paying a high price for Chinese authorities and leaders. The paper highlights some example of their effect through pollution on civil society, but also looks into the efforts of China to environment protection.

1 Historical Data of Chinese Economic Growth

There are several reasons why China experienced such an economic upsurge. How did China get where it is now? Hereby the government plays the most important role. New reforms, laws and regulation created new market behaviors which resulted in a presence in the international market. Meanwhile most trade countries pushed their economy too strength with capitalistic governments, China still remains communistic (officially). However, to find access in the global market China had to make adjustments in its ideologies.

1.1 Chinese Economic Reform 1978

The Chinese economic boom started with the Economic Reform from the Communist Party of China (CPC) in 1978. The program set the basics for the future rise of the Chinese economy. It was a reform with new goals towards a higher GDP and international trade rate, which both had mainly stagnated and even declined since the 16th century. Under the former chairman of the CPC, Mao Zedong, the businesses and industries had been under state control and socialist reforms, which left them no space for freedom of international trade or individual market rights. On the contrary, the economic reform introduced new reforms and systems to stimulate the economy and improve living standards (Shirk 23). However, since the leading party was communist, the reform was ironically called "bird cage" system (Shirk 36). Which means that the bird (= the economy), had more freedom, but could never escape the cage (the CPC). Nevertheless, agriculture and industries increased their production inter alia through price flexibility and lifted China's overall economic performance. The country started to join the global trade market and to build new relationships. Foreign companies start to invest and settle in China's businesses. In the following years, state control decreased even more which means that private businesses could experiment in their sectors with their gained independence.

However, with more freedom, companies and businesses could loosen their compliances to laws; leading to corruption and disrespect of environment and opponents.

Additionally the rise of big businesses mainly took place in urban areas which contributed to the growing inequality between the Chinese. People who were living in the countryside did not experience the economical success, but rather lost workers to the towns by leaving their home areas. The reform also accounts for the start of health problems, caused by the growth of industries. The Economic Reform from 1978 has been the first step to change the overall role of the Chinese economy in the world. However, with the reform, a ignorance towards environment and its effects on civil society developed.

1.2 Communist Party of China (CPC): Capitalistic Ideologies

The CPC was founded in 1921 under socialist and Marxism-Leninism ideologies, following communistic laws and guidelines. In the past few years, the party underwent a political change, responding to its people call for more liberty and democracy. After Mao's death, Deng Xiaoping reformed the government thinking and introduced capitalistic ideas. "Although state ownership would continue to play a dominant role, a multi-ownership system would be allowed. Deng emphasized that the market mechanism as a tool in economic transactions could be employed by both capitalist and socialist societies" (Stening and Yang). With this Deng Xiaoping Theory, the roots for a socialist market economy were set. Leaders to come after Deng, built up on the new achievements, making the market more competitive. The companies enjoyed more freedom in trade with others and in treatment of their employees.

The cultural and historical values however are still deep-seated within the CPC. Harmony orientation, group orientation, spirituality and family orientation are values which still exist within the party and economy. Even though there is the introduction and integration of capitalistic values (materialism, money orientation, competition, etc.), the CPC is allegiant to old traditions and virtues. "(...) by the lack of any significant association between traditional cultural values and capitalist ideology, the two value systems are neither compatible nor conflicting with one another "(Stening and Yang). The respect for Chinese cultural values within the economy is particular important to gain the support of the citizens. The CPC tries to find a balance and combination of cultural commitment and capitalistic orientation. "China's economy has become essentially capitalist, albeit with Chinese characteristics "(Stening and Yang). To sum up, the government is one of the key factors for the economic boom in China. Even though the CPC is considered a communist party, their ideologies seem more capitalistic orientated when it comes to market relationships. The trade between the companies and their behaviors with the international economy are very profit-orientated for their private businesses.

2 Factors Contributing to Environmental Pollution

Environmental pollution can appear in various forms, such as air, light, water, noise pollution and radioactive and soil contamination. The human race is the main reason for this destruction of the environment. With its growing industries and economy the impact on environment is inevitable. Governments, organizations and companies in diverse countries started developing and adapting environmental laws and regulations to

reduce the environmental impact. Nevertheless the pollution is still increasing because of CO₂ emissions caused by necessary factors for modern human life on earth. Some factors however can be more restricted and can account to a decrease of emissions. In China can be found much potential to be more aware of environment, for example with compliance of pollution reduction laws. China's economy grows at the expense of environment caused by its oil, automobile and textile industry. The following cases are examples which highlight tremendous pollution. Sinopec, PetroChina and China's automobile industry will serve as representatives for China's companies and industries, causing pollution in the country. Their data about pollution and environmental impacts proves that economic growth is more important for them, than sustainable business with an eye on environment protection.

2.1 Oil Companies

The Chinese state-owned companies Sinopec and PetroChina are two of the biggest petroleum contributors for the country. They are not just two of the biggest contributors to the Chinese economy, but also two of the biggest polluters within the country. The process of oil refineries in general is the refining of crude oil into more valuable products such as heating oil and kerosene. During this process various chemicals get released into the atmosphere. "Oil operations pose a threat to the environment at each stage of the supply chain—exploration, production, transportation and refining" (Frynas 582). All processes of oil companies have an impact on environment and therefore get criticized. The companies are under constant surveillance and review of organizations in support of environment protection. They collect data concerning the amounts of emissions from flaring, burning of natural gas or methane to control the companies and find conclusions to their amount of pollution. Not just the regular emissions during the oil operations, but the governance of the companies contribute to the pollution. "(...) many sources contribute to air pollution levels that hit records in January, but analysts say the oil companies' foot-dragging and disregard of environmental regulations underscore a critical challenge facing a toothless environment ministry in its mission to curb air pollution" (Wee and Li). In the next section the "disregard on environmental regulations" mentioned by Wee and Li, will be the focus of more detailed discussion.

2.1 Sinopec

Sinopec or China Petroleum and Chemical Corporation, founded in 2000, is a oil and gas company with its headquarters in Beijing. In its own Corporate Social Responsibility Report (CSR) Sinopec provides data to the performance in matters of environmental issues, stakeholder engagement and employee relationships. "Sinopec support, promote and strive to be a business leader in environmental protection and corporate sustainable development" (Corporate Social Responsibility Report 8). The objectives Sinopec itself names, sounds promising for the environment and committing to its conservation. The report later on gives data (Graph 1) to the progress Sinopec made in questions of sustainability.

Graph 1

Facts and Figures of Clean Production from 2005 to 2011

Number of clean production plans	4,684
Investment deployed RMB	1,434.64 million
Waste water reduced by	39,880 ktpa
COD in waste water reduced by	4.341 ktpa
Waste gas reduced by	871.3 million m ³
SO₂ in waste gas reduced by	23.229 ktpa
Industrial residue reduced by	18.341 ktpa

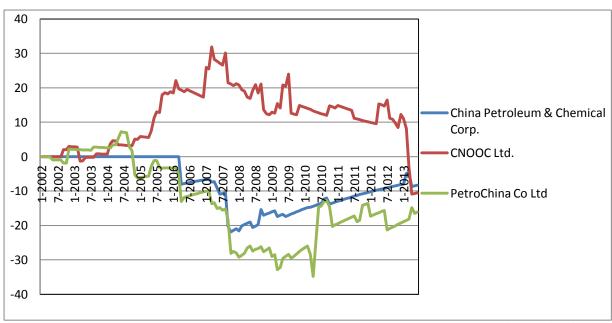
(Corporate Social Responsibility Report 43).

The data presents reduction of waste products and production of clean outputs. The numbers show a decrease, for example 871 million cubic meter of waste gas reduction, seem very high and like great achievements for environment protection. However, how does an outsider know in what relation this amount stays when there is no comparable data given? What percentage of Sinopec's overall emissions is it? Such reports have to be seen with caution. "(...) the effectiveness of CSR initiatives in the oil, gas and mining sectors has been increasingly questioned, and there is mounting evidence of a gap between the stated intentions of business leaders and their actual behavior and impact in the real world" (Freynas 581). It seems like CSR's are used as means for better reputation of companies or strategies of marketing communications. As Freynas criticizes, such reports embellish the performances of a company. In the case of the Sinopec CSR, the company probably pursues various goals. A better environmental performance would increase the popularity among costumers and local communities, the role as a pioneer among competitors and the tolerance of ecology groups. Sinopec has a list of environmental disasters caused by its production. In 2006 a few thousand people had to get evacuated due a gas leak (Luan). In 2007 Sinopec had to pay a fee for a chronic river pollution

(Sinopec Punished). Closing, in 2010, due an explosion at a factory, 12 workers got killed (Chan). It is certainly useful for Sinopec to boost its reputation with a positive CSR. However, the reality of Sinopec's performance is different.

The data from neutral observers shows the performance of Sinopec is not quite as faultless as. The following diagram (Graph 2) from Covalence EthicalQuote summarizes Sinopec's action since 2006. The valuation factors contributing to the diagram are ethical criteria. Besides economic, social and governance compliance, environmental factors such as biodiversity, emissions, waste management, pollution, water management and environmental impact of products and transport play a major role in the analysis. The positive and negative performances in all factors summarized, calculate into an average value for each month. Simply when the ethical performance has been positive, the diagram is located in the positive numbers (0-40). The same applies reversely for a negative performance. Accordingly, a look at Sinopec (here China Petroleum & Chemical Corp) shows that its entire graph is arranged in the negative range down to -22. From 2006 until the end of 2012, the company shows a poorly average performance in ethical questions. That means within these years, Sinopec must have had reports, articles and researches that pointed out discrepancies within the governance and environmental matters such as pollution. Covalence analyzes and quotes from different sources in the internet, leading to this data. In the beginning of 2008 there can be seen the worst average value, meaning that the number of negative news out weight the number of positive ones. CSR's count into the data as well, giving Sinopec positive critique. However, it cannot boost the performance of the company because third parties reported quite different company activities

Graph 2



Covalence EthicalQuote

¹Covalence EthicalQuote is a reputation index tracking the world's largest companies on environment, social, governance (ESG), corporate social responsibility, ethics and sustainability. It provides ESG ratings, news and data to investors, and reputation research and benchmarks to corporate.

The data clearly points out a poorly ethical performance of Sinopec, being contradicting to its own records in the CSR. The company accepts a negative impact on the environment through its oil production, aiming for a commercial profit. A profit, that is a major contributor to the Chinese GDP. "(...) some local government departments did not dare to inspect or supervise Sinopec even after they found the company was discharging excessive pollution" "District departments have been inspecting the three companies [Sinopec subsidiaries] many times but why had they never found any problem?"" (Daiss). The rhetorical question of Daiss seems legitimate and leads to the conclusion that the company and government must work hand in hand. With its size is Sinopec highly important to the government, and in turn gets some "discount" in exactitude of environmental law inspections. Even though it is certain that Sinopec is a big polluter, there will not be a change in the future any time soon because assertive authorities for stricter controls are missing. Unfortunately "Sinopec may know how to spin a story and claim that they are environmentally friendly, but the facts dictate otherwise" (Daiss). Sinopec is an example of China's ignorance to environment and sustainability in favor of boosting the economy.

2.1.2 PetroChina

PetroChina was founded in 1991 and is the most profitable company in Asia. With its oil and gas production, the company has to account for several negative compliances with environment, as well as Sinopec. Just to name a few of the accidents; the water supply of 3.8 million people had to be cut in 2005, due a chemical spill in Jilin. Several people got injured and a few died (Maximum Fine over China). An explosion in 2006 led to severe water pollution (Petro China's Shameful). A diesel oil tank fire broke out in 2007 at a refinery in Dalian, making the public raise many concerns (Petro China's Shameful). This has been going on since the foundation of the company. These disasters appear every year again; the environment gets polluted and citizens get injured or even die from the consequences. Though it seems to be clear where the problems and causes come from, the obstruction and prevention proves to be difficult. The problem hereby is the same that was seen with Sinopec. The government organs do not implement strict enough controls and punishments for environment violations. "Facing the frequent accidents, the accountability system functioned in a slow manner, and the punishments were too mild. This directly leads to a lack of awareness in safety production and overlooking of social responsibility"(Petro China's Shameful).

Apparently also PetroChina and the government operate more closely than some would like them to. Looking back at Graph 2, PetroChina has only shown in the years of 2002-2004 a positive ethical performance. From 2005 continuing, the company's graph stays in the negative numbers, performing even more negative than Sinopec. The graph even reaches down to a negative value of -35. Most of the negative data of PetroChina concerned pollution, emissions and environmental compliance. Besides the environmental factors, human rights policy and corruption get a large negative report as well (Covalence EthicalQuote). Thus, all the environmental law violations and other dissonances get recognized by news resources, PetroChina shows few efforts for avoidance of these things. The punishments are too soft and the laws are obsolete compared to European or American standards. More often it is easier for the companies to pay the fines than restructure and rebuilt whole production branches. Furthermore, the Chinese law can fine companies only once for a

specific pollution violation (PetroChina Branch Fined). So, why not paying a small fine than investing millions in new environmental friendly technologies? However, with some dedication PetroChina could improve its environmental record.

There are ways for oil and gas companies to reduce their environmental footprint. However, the companies do not want to face more expensive methods for their productions. Furthermore their yearly monetary outcome could decrease and with that reduce their international rank. "(...) Yue, whose group is affiliated with the environment ministry, is lobbying for the oil firms to put "detergents" in its gasoline, which will burn fuel cleanly. The oil firms oppose it because of the costs, Yue said"(Wee and Li). More clean fuel burning would be one of the ways for companies to consider, in favor of environment protection. However, meanwhile these regulations and methods are part of the environmental laws in Europe, China cares less about new implementations in their factories as long as the profit is rising. "State oil giants China Petrochemical Corporation (Sinopec) and China National Petroleum Corporation (PetroChina) have been blamed for the severe air pollution in the country recently since the sulfur content of their products is said to be 15 times higher than European standards." (Sinopec, PetroChina Accused). It is a long way to go for the oil companies to reach a more positive environmental record. The Chinese laws are too vague and the punishment of these too soft. Chinese standards are far from Western guidelines.

2.2 China's Automobile Industry

The automobile industry is one of the biggest pollution contributors in China. Even though China has shown some approaches to reduce the CO₂ emissions (e.g. electrical cars), the smog in cities like Beijing and Shanghai is terrifying. "Across the entire country, automobiles cough out 27 percent of total nitrogen oxide emissions" (Holmes). In the cities, vehicle emissions have an even greater percentage. The number of car owners in Beijing is growing rapidly, reaching 5 million in 2012. Furthermore the numbers of car production through China's automobile industry is constantly growing as well. It surpassed Europe, Japan and USA to become the largest vehicle market, through domestic firms like Dongfeng Motor Corp and China First Automobile Group Corp.

The devastating fact of pollution through automobiles, are the emitted fine particles of diesel soot and gasses. "Owing to direct emissions from motor vehicles and secondary formation by photochemical reaction, more polluted and hazy days resulting from reactive gas and fine particle have appeared and become increasingly conspicuous" (Jones et al. 4631-4632). The particles, also called PM2.5 2 , get blown out in the air from vehicles and affect the air quality in the cities significantly. Large cities like Beijing are extreme polluted. A normal, healthy value of PM2.5 in the air is set at $35\mu g/m^3$ (before it was $65\mu g/m^3$). However, the cities Beijing, Tianjin and Shijiazhuang are so polluted that they exceed those standards by far. As Zhao et al. conclude; 90% of their sampling in those cities exceeded $50 \mu g/m^3$, and even worse; 88 % exceeded $100\mu g/m^3$ (Jones et al. 4635). The statistics speak for themselves. How should this pollution decrease when the number of car-owners

² Particulate matter with a diameter of 2,5 micrometers or less

increases? The Chinese automobile manufacturers will not reduce their sales or profits. It is lucrative business and contributes to the Chinese economic boom. Momentarily there are barely limitations to car sale. The idea could lead to a reduction of air pollution. "Eight cities (...), will probably introduce measures limiting auto purchases, Shi Jianhua, deputy secretary general of the China Association of Automobile Manufacturers, said in a briefing" (China Widens Car-Purchase Restrictions.) The idea could lead to a reduction of air pollution. However, its implementation will depend on the Chinese government, as well as on the compliance of the automobile manufacturers. Furthermore, if the punishments of these possible laws are as flaw as the ones for pollution by oil companies, the positive effect on environment will fail to appear.

3 Current Environmental Situations

Chinese oil companies and automobile industry are some of the causes for pollution in the country, as the examples above proved. The resulting questions are; how does the environment gets effected? What impact has the pollution on citizen's lives, biodiversity and nature? With an increase in Chinese economy there is also an increase in negative effects on environment, making Chinese cities too the most polluted ones in the world: "According to the World Bank, 16 of the world's 20 most polluted cities are in China. The industrial revolution transforming the world's most populous country is also destroying its environment"(Lim).

3.1 Biophysical Environment

"We've ruined Mother Nature" (Lim); a short, but effective sentence to describe the impacts of Chinese economy on biophysical environment. The nature, including habitats, air space and waters, experiences the full amount of the ignorance by government and companies. The destruction through deforestation, pollution, emissions and waste management have been devastating in the past and will continue if China does not change the policies- and more important- the controls of the compliance of it.

Furthermore, China will face famine when nature gets destroyed by pollution. It is a cycle of population increase and the inability to produce enough food in the contaminated air. "Air pollution is believed to have significantly reduced crop production" (Hays). There is an enormous decrease in the harvest and China is already struggling to feed its nation. With this ongoing trend it seems like China's problems will grow and challenge the government.

Besides a reduced crop production, acid rain, contaminated waters and polluted air harm habitats and animals which need their environment. "Damage due to acid rain kills trees and harms animals, fish, and other wildlife.(...) When acid rain soaks into the ground, it can make the soil an unfit habitat for many living things" (Russell). As Russell describes, the effects of polluted water have tremendous effects. China's nature has a huge biological diversity, but the preservation is in risk if China continues to ignore the negative impact. Right now ignorant companies might not realize or feel the effects of a decrease in biodiversity. However, at the latest in a few years, they will realize that human beings rely on habitat conservation. The government and industries need to realize that their seeking for economic growth will destroy the biophysical environment even more than they already did.

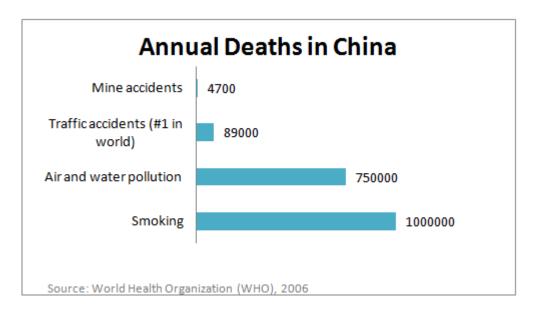
3.2 Effects on Life and Health of Civil Society

Besides the biophysical environment, citizens are the victims of Chinese economic growth. Zand used the phrase that "the Chinese contaminate themselves and the rest of the world with the waste of their booming economy" (Zand). The extreme pollution in air and water affect the life quality tremendously. Rising healthcare costs, increase in pollution related deaths, drinking water shortfall, food deficit are just a few challenges citizens have to face. The situation is getting worse every year. The people are worried about the future; the future of their children and next generations.

3.2.1 Air Pollution and Smog

Predominantly, people living in cities suffer from air pollution, showing health problems like heart and respiratory ailments and causing a rise in death rates by ultrafine particulates. As mentioned earlier (2.2), the air quality is far from healthy standards. China's average air pollution index reached severe 397 in February this year (Sinopec, Petrochina accused). A low or medium air pollution value is between 0 and 50. Certainly there must be an enormous impact on the health of civil society. Each age group in China struggles with health problems, increasing with age. Children feel the first effects of the pollution with coughs or small bronchitis. As they are getting older, the diseases become chronic, resulting in the necessity of bronchodilators with adult age. Furthermore, adults face an increase in work loss day. The elderly (65+) are confronted with congestive heart failures and regular visits of hospitals (Selin et al. 9). Pointing out, citizens of all ages suffer from the air pollution. Additionally, even newborns have to face the pollution from their very first existence as Hays argues: "Air pollution causes premature births, low-birth weight babies, and depresses lungs functioning in otherwise healthy people" (Hays). Lung cancer, besides heart diseases, is the main reason for deaths caused by pollution, contributing to a rise in deaths. According to Chinese government statistics "300,000 die each year from ambient air pollution" (Hays).

Graph 3



Air and water pollution are the second most common causes of death after smoking (Graph 3), and this number is growing, meanwhile the difference between smoking and water and air pollution deaths is increasing. The chart furthermore points out that this cause of death is solely in China so high. The main death cause in the world is car accidents. China is the only country that affects the health of its citizens so tremendous throughout its industries.

3.2.2 Drinking Water Quality and Soil Pollution

As the chart in 3.2.1 showed, is water pollution besides air pollution the cause for 750,000 deaths a year. Now, in 2013, it is probably even higher, since the data was released by the World Health Organization in 2006. The pollution of drinking water has led to a spread of several diseases and other chronic health problems among society. Especially people living in poverty cannot afford medical care. Chinese farmers pollute the soil, and in turn the ground water, with the use of fertilizer and pesticides. Besides the farmer, wastewater from industries is increasing rapidly, facing the problem of correct environmental removal (Xue et al. 251). Research has shown that the cancer rate in areas with polluted groundwater through industrial wastewater has been a "25% higher rate of overall cancer mortality" (Xue et al. 252). Another problem with the provision of enough drinking water is that "Chinese cities have limited facilities or infrastructure to treat sewage or drinking water" (Xue et al. 252). As mentioned, China is still considered a developing country because the living standards, supply provision and constructions are not yet comparable with developed standards or modernized countries. Infrastructures and facilities are not yet expanded enough to serve all citizens. When construction factors are combined with contaminated water and increasing population, the effect on health of citizens must be fatal.

Additionally, "acute water shortages, especially in the northern regions, have led to the relatively new practice of using industrial wastewater for irrigation" (Xue et al. 252). Meaning not just that groundwater gets polluted, but bacteria and chemicals can be found in the growing seeds, plants, vegetable and similar. With China's growing export rate of food, this can even affect citizens beyond Chinese borders. More than one thousand students in Germany last year fell ill by Chinese imported strawberries, because of contained noro viruses (Zand, Ulrich et al.). The quality of farmer food suffers immense. Overall, the hydrologic cycle is extreme polluted and it will be difficult to clean China's drinking, ground and irrigation water within the next decades. Until an improvement in water quality, citizens pay a heavy price for China's economic boom.

4 Efforts for Environment Protection

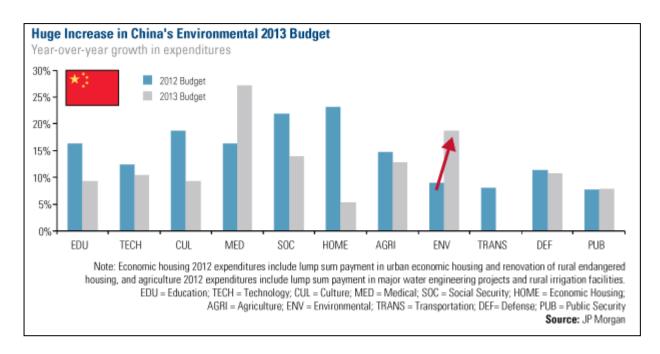
Besides the negative effect on environment and society, China's efforts in the last years to reduce the tremendous impacts should be recognized. Stimulated by the skepticism of the international community, the awareness of China towards environmental protection has increased. The environmental footprint within the country is highly visible, so that governmental bodies and industries have to act. Furthermore, citizen "(...)have become less tolerant of the policy of "economic growth at all cost"" (Pei). If the disdain increases in the population, the government has to fear insurgences and riots. Many examples in history have shown that citizen tolerate poor life circumstances caused by regimes only until a certain degree. At some point they will

voice their view and agendas. To avoid this and to reduce environmental destruction, Chinese government has taken actions and joined several international programs.

4.1 Government Actions

The government has shown efforts in adopting new laws and taking an active part in international environmental affairs to regulate the impacts of the industries. In the past years, the budget for an environment protection and creation of sustainability within social factors has increased by significant numbers.

Graph 4



In Graph 4, the x-axis shows different aspects in government expenditures, such as environment (ENV), culture (CUL) or Technology (TECH). The y-axis shows the percentage of increase spent on different fields compared to the year before. As the Graph shows, the government spending on environmental issues has increased by over 18 % (ENV). In addition, the budget on medical expenses (MED) had even increased by over 27 % as, compared to 2012, meaning that the environmental budget has doubled and the medical budget increased by over a quarter. Therefore, polluted related sickened citizens can get better treatment and pharmaceuticals. Looking at the overall government budget, ENV and MED are besides Public Security (PUB) the only factors that have increased that much. Most of the other factors increased less between 2012 and 2013 compared to 2011 and 2012. In the field on transportation for example was no increase at all. It seems like China is increasing not just the budge for environmental issues, but increases the attempt to assure more protection of the environment.

In 2008, the Chinese government released a new law to improve recycling actions and "to boost sustainable development through energy saving and reduction of pollutant discharges" (China Adopts Recycling Law). This is a step toward better waste and water management by factories and industries. Important hereby is, that the government not just states the law, but also enforces strict supervision. The law indicates that

companies violating the rules will face fines of 50,000 Yuan to 200,000 Yuan (China Adopts Recycling Law).

Furthermore, the government tries to reduce air pollution in the cities with reducing the PM2.5 emissions. To achieve this "the government will expedite bans on vehicles that emit large amounts of pollutants, as well as promote more fuel-efficient cars" (Lina). The regime realized that large cities are overcrowded with vehicles, contaminating residents and tourists. The Chinese government is taking steps towards some improvements. However, it is difficult to limit pollution and reduce the effect on citizen when the population is growing at such a rapid rate.

4.2 United Nations Environment Program

The United Nations Environment Program (UNEP) is a program of the United Nations, aiming at the protection of environment to provide, enable and inspire a sustainable lifestyle for benefits of future generations. Numerous agencies, governmental bodies and NGO's worldwide work with the UNEP to increase the overall awareness of environmental issues. The involvement in the UNEP with a permanent mission is one example of China's efforts for more restrictions and international dialogue. Both have been working together over more than 30 years now.

At an UN Sustainability Development meeting, China contributed a financial remarkable amount to the UNEP. "China's Premier Wen Jiabao announced that China will contribute US\$6 million to a UNEP trust fund for projects and activities that help developing countries raise their capacity for environmental protection" (UNEP-China Cooperation). The government shows commitment to foster the international community, especially to developing countries without mean. Besides financial support, Chinese politicians also participate in sessions and meetings from the UNEP, promising an improvement within China. A mayor of Changsha³ "(...) has been actively working to become an eco-city by, among other initiatives, building more bike lanes and hiking trails" (UNEP-China Cooperation). Even though, these are small steps to take in such a huge country like China, these are still moves to clean the environment. Just last year, such Chinese obligations got recognized by the UNEP. "Mr. Steiner⁴ believes that China's Congress expressed the country's significant and systematic orientation towards achieving a transition to a Green Economy" (UNEP in China 3). In dialogue with international organizations, China seems to have a good reputation when it comes to environmental issues. The UNEP sees in China a great partner and acknowledges its orientation towards a green country.

Both, UNEP and China, have been working together in Beijing. To establish a pioneer project to spread energy-efficient technologies, they built the Global Efficient Lighting Centre ((UNEP in China 4). It is designed to support developing countries in light and energy management processes. Chinese experts provide and share their knowledge in technical trainings and laboratories. Overall, the cooperation between UNEP and China seems to be a success in working towards more sustainability.

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³Capital city of Hunan, in south-central China

⁴ Achim Steiner: Executive Director of the United Nations Environment Program and Under-Secretary-General of the United Nations

China has shown approaches and commitments within the international community towards correct environmental compliance. However, some of China's methods to punish environmental law violations are questionable. In 2013 the Chinese government released a new regulation saying that "Chinese authorities have given courts the powers to hand down the death penalty in serious pollution cases" (Blanchard). Compared to the small fines in the past (2.1.2), the implementation of death penalties seems a little bit rough. Furthermore, it is a difficult way to get companies to follow higher environmental standards. Death penalties in history have rarely shown success in preventing law violations. However, this method is common in China and part of the communist system, usually to punish corruption and economic crimes.

Conclusion

China has shown efforts to environment protection and engagement in global programs. However, the country remains one of the most polluted ones. Announcing advancements in environment protection is positive propaganda for government and industries, covering internal agreements and intentions. The data of polluters like oil companies and the automobile industry is self-explanatory. The environment, and in drawback the citizen, suffer under the tremendous pollution and pay the price for the Chinese economic boom.

China cannot be blamed solely for the destructive situation. Numerous international companies outsource their businesses and production to China. Besides cheap labor, the main reasons to move to China are low environmental standards. Other countries take advantage of the situation to boost their own sale figures. Nevertheless, both, China and the international community, have realized that action must be taken to create more economic sustainability. For now and the coming years however, seems to continue the concept of "growth at all cost" (Zand).

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