

Lau Kin Chi*

Sustainability with Ecological and Economic Justice in China

March 11, 2015
Anniversary of the Fukushima Catastrophe

Abstract | This paper examines the sustainability of China's economic development since the 1979 Reform by addressing questions of socio-economic and ecological justice. It attempts to understand how the craze for Modernization entraps China in socio-economic injustices and aggravates environmental crises. It argues for adopting subaltern and ecological perspectives in challenging statist, elitist and anthropocentric discourses and practices concerning the question of sustainability in China.

Keywords | China – sustainability – ecological justice – socio-economic justice – subaltern perspective – common

The year 2015 started with two interesting cultural events in China, which may offer a glimpse at the perception by different sectors of the Chinese population of the question of sustainability in China after over 35 years of the Reform launched by Deng Xiaoping. In the first days of January, a rock and roll song called *My Tomatoes are Clean*, written and sung by the Peasant Brothers, topped the popularity list. On Feb 28, the tenth day of the Chinese New Year of the Ram, Chai Jing's documentary *Under the Dome* was screened on seven websites in China; within two days, it was viewed over 200 million times, at the same time provoking heated online debates and diverse political reactions.¹ What is worth analyzing, apart from what the song or the documentary is about, is the way they were received by the public and what this tells us about the "structure of feeling" of the time (Williams 1977, 128-135). The former concerns disparity between the nouveau riche and the ordinary folk, and between the urban and the rural. The latter concerns smog pollution in the context of intertwined political and institutional power and interests in China.

* Universidad de Lingnan, Hong Kong. **Correo electrónico:** laukc@ln.edu.hk
1 *Under the Dome* (穹顶之下) with English subtitles: <https://www.youtube.com/watch?v=T6X2uwlQGQM>

This world is too much hustle and bustle

The lyrics of the song *My Tomatoes are Clean* go like this, and readers can click to listen to the song:²

*This world is too much hustle and bustle
I have a small piece of veggie plot
This is far from Highway 107
Free from auto exhaust and smog
My home is not in that big, big city
No need to squeeze a smile to everyone
No need to scramble for fame and money
So long as my tomatoes are clean*

*You go up in the sky in a Bombardier
My tomatoes are clean
You land and drive a Ferrari
My tomatoes are clean
You wear a Rolex on your wrist
My tomatoes are clean
You wear a Hermes on your waist
My tomatoes are clean*

*This world is too much hustle and bustle
I have a small piece of veggie plot
This is far from Highway 107
Free from auto exhaust and smog
My home is not in that big, big city
No need to squeeze a smile to everyone
No need to scramble for fame and money
So long as my tomatoes are clean*

*You're clad all over with Boucheron
My tomatoes are clean
You're sprayed all over with Chanel
My tomatoes are clean
You check in tonight at Burj Al Arab*

² *My Tomatoes are Clean* (我的番茄是干净的), <http://mp3.9ku.com/mp3/654/653116.mp3>
Translation of the lyrics into English is mine.

*My tomatoes are clean
 You party and party and toast with Martell
 My tomatoes are clean*

My tomatoes are clean
 (Repeated fifteen more times)

The line “My tomatoes are clean” is repeated 26 times in the whole song. Apparently a reaffirmation of the pride and the will of the peasant. The rural setting with tomatoes grown on a small plot is contrasted with the luxury lifestyle of the nouveau riche. It is not unusual to have a song about the romantic serenity of the countryside, yet what is intriguing here is that this song could have become popular by privileging a simple rustic life as against the hustle and bustle of the “modern” city. It is difficult to imagine massive numbers of peasants sharing this sentiment a decade back, but it seems the tide is somehow changing. Since the early 1980s, millions of peasant migrant workers have swarmed to the cities and the coastal regions for jobs, providing cheap labour and displacing the unionized urban working class that enjoyed high social status and social security until the Reform (Feng Tongqing 2003). The latter has been forced into unemployment through the imposition of bankruptcy on large numbers of state-owned enterprises in the late 1980s and throughout the 1990s. With the exodus to the cities, China’s rural population changed from 89.36% in 1949, to under 80% in 1980, under 70% in 1997, under 60% in 2003, and under 50% in 2011; it was 46.3% in 2013.³ At the end of 2014, peasant migrant workers numbered 274 million.⁴ Thus, when the song expresses a wish to leave the cities, it articulates the frustration and disenchantment with an upward-mobility dream once shared by tens of millions of peasant families. Indeed, life in the cities has remained untenable for peasant migrant workers. Not only is there the problem of low/withheld wages,⁵ meagre social security and harsh/hazardous working conditions,⁶ but also the major concern that children of migrant workers cannot

3 National Bureau of Statistics of PRC, 7 July 2014.

4 *Guangming Daily*, 1 March 2015.

5 Cheap labor cost was an attraction to foreign capital flooding into China in the 1980s. Over the years, with the increased bargaining power of the young migrant working class for better remuneration, this so-called “comparative advantage” enjoyed by enterprises in China has been giving way to even cheaper labor in neighboring countries such as Bangladesh and Vietnam. Still, for the Chinese workers, wages are meagre due to inflation and high living costs in the cities.

6 In 2010, the suicides of 14 workers at the Foxconn factory in the Special Economic Zone of Shenzhen drew public attention to the conditions of work and the plight of the workers. Foxconn employs over 1 million workers across China. Its peak production in one day can

get regular education in the cities.⁷ Hence a slowdown in the exodus to the cities, and occasional complaints from factories in the south, reporting difficulty in recruiting workers.⁸ If there is a lack of material improvement and sense of well-being on the part of the main sector of the population that has contributed to China's physical economy for over three decades, the sustainability of this mode of economic development is questionable.

You party and party and toast with Martell

The song, by privileging the "clean tomatoes", satirizes the nouveau riche. The sentiment expressed is not one of envy or rivalry, but of dismissal: you have your way, I have mine. As if the two were not connected to each other. However, the growth under the Reform has been largely propelled by the ideology of money, greed and individualism, and the iron law of the jungle seems to have been supreme: the winner is the one who amasses money, regardless of whatever means were used; the loser is the one without money. Yet, is there no connection between the winner and the loser? In 1978, the Reform was launched with the promise that China was not going to practise exploitative capitalism, for it was still embarking on a preliminary phase of socialism; the helmsman, Deng Xiaoping, pledged that a small minority should be allowed to get rich sooner so that they would carry along those that would get rich later. It would only be a matter of time for everyone to get rich and get a share of the cake.

The outcome of the Reform is obvious: the cake has indeed become bigger. There are undeniable achievements; for example, extreme poverty has been reduced. China prides itself as one of the very few countries meeting the Millen-

be 140,000 iPhone 6 Plus units and 400,000 iPhone 6 units, along with other products (Hong Kong Economic Times, 18 Sept 2014). One can imagine how the factory, for example in Shenzhen, is run with discipline like an army, when 300,000 workers line up into the factory every day, toil away at their work station, and are body-checked when they go off duty to ensure no theft. The assault is not only on their physical bodies, such as fixed limited time for the toilet, but also on their sense of dignity.

⁷ Without AN urban residence permit, migrant workers have to pay exorbitant fees to send their children to school in the cities, and even so, many schools run for migrant workers do not have an official license. In 2013, of the 136 schools for migrants' children in Beijing, 73 were not licensed, over 50,000 school children could not be officially registered, and were compelled to return to their home village/town for education. Workers Daily, 28 Nov 2013.

⁸ The situation became grave in 2009, when in the southern and coastal regions, which absorbed one third of peasant migrant workers, the worker-job ratio in the labor market varied from 1:1.14 to 1:1.51. This was also partially a consequence of the wave of bankruptcies of small and medium enterprises in 2008, causing migrant workers to return home and to be reluctant to go out for jobs. <http://baike.baidu.com/link?url=GbZjy3wilyGKu-goPHGvOQIR0Mc29fayLMPOEKY13jPVq4vNOtrgHXFboMazWIFL8TuxdjtJg7p0Ltxo9MRVKSK>

niun Development Goal (MDG) in fighting poverty. Statistically, the 2015 MDG target of reducing the extreme poor of 1990 by half was already met in 2009 – from 85 million to 35.97 million. Yet the fact is that 3.6% of China’s population was still in extreme poverty in 2009; in 2010, China’s extreme poor constituted 12.8% of the world total.⁹ Could, and should, China have performed better? Its economic growth with flying colours has been applauded: continual annual per capita GDP growth at above 7.6% since 1991;¹⁰ China counts as the second largest economy in the world since 2010; in 2014, its total GDP was USD 10 trillion, foreign reserves were USD 3.843 trillion, and total import and export value reached USD 4.3 trillion.¹¹ These are the statistics supporting the claim that China is now a global economy of consequence. China has been patted on the back for its performance as a good developing-country student following the capitalist paradigm, and as a model for the less and least developed countries. There is even a dizzying euphoria in China with the term “Chimerica” which has appeased the vanity of many.

But, wait a moment! The term “economic sustainability” can mean very different things to different interests. For the Chinese state or the global mainstream media, the primary reference is China’s GDP growth. The term “sustainability” is used to refer to sustained growth, that is, continual expansion of the economy by the capitalist logic of more production, more jobs, more consumption, more material turnover, and more monetization of all means of life. Such a position does not really care who benefits and who suffers in the framework of this paradigm of sustained growth, and for how long such growth can be sustained.

As the song goes, “you” are the ones driving a Ferrari and wearing a Rolex, trashing money as if it were dirt. “You” can shop in Paris or Dubai, and hundreds of luxury brands have opened shops in China for “your” convenient shopping. These have indeed been good times for the nouveau riche. In 2015, of the 1,826 billionaires that made the Forbes Rich List, 213 were from mainland China, and four of them ranked among the 50 richest in the world.¹² At the same time, China’s Gini coefficient stood at a high 0.469¹³ (this coefficient measures income

⁹ *The Millennium Development Goals Report 2014*, p. 9. Relative to most other countries which have failed to attain the MDG goals, China is a success story. However, this should be seen not so much as China’s “success”, but as the dismal failures of global capitalism in most developing countries today.

¹⁰ According to the World Bank Report, China’s GDP growth rate registered two digits growth in 16 out of 34 years during 1980-2013. The rate did not go under 7.6% except for the years 1981 and 1989-90. <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

¹¹ National Bureau of Statistics of PRC, 20 Jan 2015.

¹² <http://www.forbes.com/china-billionaires/>

¹³ National Bureau of Statistics of the PRC, 20 Jan 2015. However, according to an academic report of Peking University in 2014, the Gini coefficient for household wealth in China

inequality, where zero is perfect equality and one perfect inequality). The question is simple and naive: is there any relationship between the extreme rich and the massive poor? “Classic” capitalism is accumulation of capital and wealth in the North through colonialist genocide and plunder. what is the nature of capitalist development in China like? No one would really believe that the wealth of the elite minority has been amassed through individual competence or incredible good luck. After 1949, the nation’s wealth has been accumulated through coerced contributions by the whole population, channelled to the industries in the form of collective or state property. A study suggests that the contribution of peasants to nation building in the first 60 years of the People’s Republic of China (PRC) was around 17.3 trillion yuan (equivalent to USD 2.8 trillion), made possible by policies such as the price-scissors system of agricultural and non-agricultural products, the mobilization of cheap labour, and land acquisition (Kong and He 2009). This is behind the “miracle” of China’s industrialization within three decades.¹⁴ With the Reform, since the late 1980s, institutional restructuring has legitimized massive privatizations of state-owned and collectively-owned enterprises and assets, and common/public wealth has been channelled to an elite minority through monopolized power and corruption.¹⁵

This means that the elite minority, contrary to Deng Xiaoping’s formulation, has benefitted from the Reform’s restructuring by means of expropriation of the wealth of the majority. With about the richest 1% of the population owning 33% of the wealth, and 25% of the poorest owning 10%, (Xie and Zhou 2014) the latter, the subalterns, are further disadvantaged by sustained “growth”. When Deng Xiaoping formulated the sooner-or-later-everyone-getting-rich theory, he did not seem to have read Bertolt Brecht:

was 0.73 in 2013. See <http://english.caixin.com/2014-08-04/100712733.html>

14 In my view, the Cultural Revolution has been analysed too much in terms of political struggles for power among different Party factions, and inadequately understood in terms of its institutionalization of the extortion of surplus labour value by the state for the sake of China’s industrialization. The labour of every single individual, peasant or worker, was subject to the state’s control and appropriation. It was the first time that the norm for thousands of years of village governance was radically changed. In the past, imperial power could apply its rule only up to the county level, and the larger part of the rural population and economy were left to themselves unless during times of war or banditry. Mao Zedong attempted comprehensive control by imposing the people’s commune model during the Great Leap Forward of 1958, but he encountered passive resistance from the peasants, and the policy was withheld for some years, but this mode of strict control and appropriation by the state was generally re-imposed after Mao retook power through the political struggle of 1966-68.

15 According to a report by the Chinese Academy of Social Sciences, between 1990 and 2011, 18,000 corrupt officials fled from China, taking up to 800 billion yuan (USD 235 billion) with them. *China Daily*, 31 Dec 2014.

*this whole /
 System's a seesaw with two ends /
 Depending on each other. Those on top /
 Are where they are because the others /
 Are down below. And they will stay up top /
 Only so long as the others stay down. They'd be /
 On top no longer if the others, leaving their /
 Old place, came up. And so it is that those /
 On top inevitably want those below to /
 Stay there for all eternity and never rise. /
 And anyway, there have to be more people down below /
 Than up on top to keep the seesaw in position /
 For that's the way with seesaws. (Brecht 1931)*

Are those down below willing to stay there for all eternity? While this process of transferring common/public wealth into private hands was taking place, was there no objection or resistance from the working classes? Wang Hui (2003) argues that there was resistance, and there was a connection between the repression of people's resistance of the 1980s culminating in the 1989 movement, and neo-liberalism getting the upper hand in China starting from the early 1990s, the same way it has been imposed globally since the 1980s. Wen Tiejun (2008) discusses the rise of a new proletariat comprising peasant migrant workers that have matured over the years as a collective force fighting for their economic and social rights. Wang Hui (2014) also discusses the concept of class, class politics, and the formation of class in the context of the failure of modern worker states and of the decline of class politics.

Thus, from the position of the majority of the labouring population—peasants, migrant workers, and material and immaterial labourers—, economic sustainability means much more than selling waged labour in the immediate period; at least it means a decent livelihood with sustained income and social security, and a habitat with access to the basics of life: clean water, clean air, safe food. Yet, Chinese labour is in a precarious position, as the world factory mode of economic development is export-oriented and susceptible to the global economy externally, and internally dependent on exploitation and expropriation rather than social progress and social justice.

Furthermore, the fact that China has progressed into an era with finance capitalism dominating the economy is unsettling. Like the opportunities and crises that global finance capitalism engenders, China's economy is similarly susceptible to the vulnerabilities of casino capitalism, albeit in different ways due to state policies that are in general pro-capital, but specifically differentiated

due to contentions between diverse vested interests.¹⁶ According to the 2015 Report of the McKinsey Global Institute, China's total debt quadrupled from USD 7 trillion in 2007 to USD 28 trillion in mid 2014; China's debt as a share of GDP was an alarming 282%: half the loans were linked directly or indirectly to China's real estate market, unregulated shadow banking accounted for nearly half of new lending, and the debt of many local governments was likely to be unsustainable.¹⁷ It is therefore worrisome that while the peasant singer chooses to be autonomous from all the greed, lust, filth and vileness of the cosmopolitan elite world, and aspires simply to grow clean tomatoes, his world is not immune from the assault of finance capitalism on anything that can potentially turn into glittering gold. For over three decades, migrant peasant labour has been exploited. With the impending demise of the manufacturing sector, and profits from extraction of physical labour value being minimal, finance capital, speculative by nature, has flourished in the last decade in urban estate development and is now setting its sights on the last bastion of the gains of the people from the 1949 revolution—rural land. This land, with some differentiation between residence lots and farmland, is gradually being opened to “circulation” (a euphemism for “transaction”). In 2008, a policy document formally legitimized the circulation of right of contract and operation of rural land.¹⁸ In 2014, another policy document opened up mortgaging of rural residence lots.¹⁹ Such major policy changes will have serious impacts on land entitlement and land access for Chinese peasants when, up to now, the right of use of land has been under the sovereignty of the village community. The peasant migrant workers, exploited by legitimized privatization and capitalism, fed up with false promises about

16 I am Co-director of a research project comparing China with six other emerging countries, and after the first phase of the seven-country reports in 2011-12, the second phase with a critical analysis of the experience of the seven countries is being conducted in 2013-15. Please see <http://www.emergingcountries.org/pdf/China%20Historical%20Review.pdf> for the historical review of China in the first phase. This is based on Wen Tiejun's *Eight Crises* (2013), the English translation of which is forthcoming in 2016.

17 McKinsey Global Institute: *Debt and (not much) Deleveraging*, Third report, Feb 2015, p. 8. http://www.mckinsey.com/insights/economic_studies/debt_and_not_much_deleveraging.

18 “The CCP Central Party Committee Decision on Major Issues Concerning the Advancement of Rural Reform and Development”, 2008.

19 “Opinions on Comprehensive Deepening of Reform to Accelerate Agricultural Modernization”, No. 1 Document of 2014. Self-sufficient grain production in China has been historically maintained; however, with the onslaught of marketization and commodification in rural China, especially with the Green Revolution profusely applying chemical fertilizers and pesticides, and with paved roads giving access to all villages in the name of the New Socialist Countryside, the rural domain in China is now open to firstly, private transfer of rural land use, and secondly, to finance capital, which are the two main threats to rural life in this decade.

the nouveau riche extending a helping hand to those down below, may want to return to the mode of subsistence livelihood of their parents and grandparents. However, would they still be entitled to a small plot to grow clean tomatoes?

I have a small veggie plot

The returnees, if they indeed reject the temptations of urban opportunities and take action to return to the countryside, will have to confront not only the question of access to farmland, but also a major issue plaguing China's sustainability: whether the tomatoes can be kept literally clean from pollution (apart from being metaphorically clean from corruption).

It is already common sense that the mode of development of China's economy in the last three decades cannot sustain itself once the environmental factors are taken into consideration. It is well known that China is a dumping ground for electronic waste (rhetorically presented as a "recycling" industry) from the North, that China is the largest emitter of carbon dioxide in terms of volume (the blame lands with the producers rather than the consumers); that the cost of cheap manufactured goods flooding the world (and subsidizing low-income world population with low-priced daily necessities) is so low because of cheap labour as well as rampant environmental pollution... When "modernization" at all costs is justified by Deng Xiaoping's famous motto "Development is the Hard Truth", the dire costs of such a development paradigm were not unforeseen. It is most important to understand how policy makers or the general public are not unaware of the consequences of environmental hazards that come with such a development paradigm, and yet, there are no radical efforts to reverse or abandon such a paradigm. We cannot simply dismiss this mindset as idiocy or insanity, though there is no other word to describe such a collective ill. The famous Chinese writer Lu Xun uses the metaphor of people in an iron-sealed house slumbering away to unconsciousness and refusing to be woken up, save one person who burst out and tried to issue a warning without avail. Thus, the question we need to ask seriously is: how is it that the ecological problems present themselves, again and again, every time with greater severity, and any one of them could turn into a major catastrophe, yet, no radical reversal is attempted.

I think we need to examine the severity of the ecological problems, understand their connectivity to each other, and very importantly, make sense of the way the problems are perceived, even when the logic of reasoning, of policy makers as well as the general public, relegates them to secondary significance. For example, the following "reasoning" has been current in China: we need to be utilitarian and pragmatic, we must make a choice between starving today

(economic needs) and being poisoned next week (ecological concerns), and obviously the former takes precedence; get rich first, become strong first, and then the problems can be resolved with money and national power; the problems are “tuition fees” that China must pay in its development modelled after the advanced countries, and the economic powers of UK or USA also encountered these problems in their industrialization phase; science and technology somehow can redress the problems and we have faith that even if science and technology cannot redress the problems today, a solution will be found tomorrow... As for the elite minority, or even for the upper middle class: if China becomes uninhabitable, we have an alternative—migrate abroad.

The middle-class perspective is predominant in discourses about China’s ecological problems. The middle classes, mostly professionals and entrepreneurs, are estimated to be about 20% of the population. Some may have taken advantage of the property boom to secure a few apartments, most have benefited from economic growth and good income, own a house and a car, and enjoy a lifestyle of travelling abroad and eating out. They are the ones subscribing to notions of slow living, organic food and healthy lifestyle, and are concerned particularly with issues immediately affecting their health. They are the ones most receptive of the articulations in Chai Jing’s documentary *Under the Dome*. This documentary has become a major cultural and political event.

Receiving over 200 million online hits means that one in three of the 637 million netizens in China watched the documentary in the first 48 hours. A tsunami ripped through the internet in China, with dramatic pros and cons groups formed, debates and controversies overwhelming blogs and wechats, statements made by monopoly oil companies, scientists and NGOs, and government propaganda authorities intervening to contain these discussions in state-controlled or state-influenced print and online media.

The cultural and political event of *Under the Dome* has generated enough material for a dozen doctoral theses. I will not discuss how factually sound the information furnished by the documentary is, or the motives or conspiracies behind its production and funding, or the rival opposition. The interesting question for me is how this Chinese version of *Inconvenient Truth* (Davis Guggenheim, USA 2006)²⁰ illuminates the mindset of the middle classes, and the constraints of their perspective and formulation of alternatives.

²⁰ The documentary is a recorded 103-minute lecture delivered by Chai Jing during which she relates her personal experience as a mother concerned with the health of her baby to the issue of PM2.5 smog pollution, with clips of her journalistic interviews with experts and officials in China and the North, presentation of charts and cartoons to explain the severity of the issue, and recommendations for action.

Chai Jing is not the first one to produce investigative reports in China on environmental issues, though she is the most spectacular media event so far. The smog issue has been visible to the public for some time, as people experience the invisibility caused by smog in their daily life.²¹ Smog is generally attributed to PM2.5 (though reality is more complicated); hence there are constant reports about PM2.5 measurements in major cities in China, sometimes included in weather reports, the same way contamination levels of cesium 134 and cesium 137 in food items are reported every day in Fukushima newspapers after the nuclear power plant catastrophe in 2011.

While raising the smog issue, which certainly needs to be urgently addressed,²² Chai Jing's reading of the cause of the problem (understandably she may have self-censored some views so as to avoid government censorship), and her recommendations for possible solutions, are typically middle class oriented. Her proposal that the polluting steel factories should be closed down, like the mines in the UK, met with protests from workers who have reason to be worried about their jobs. Her recommendation to break up the monopoly of the China National Petroleum Corporation and the China Petroleum Chemical Corporation by introducing market competition which, she thinks, will rationalize control over contamination, invites bashing from the monopoly interest blocs; the bashing at the same time makes her a heroine in public opinion as a fighter against monopolies. Yet, the challenger of corporate monopoly does not challenge the logic of the market, modernization and capitalism. She recommends individuals to file complaints about pollution but there is no change urged on consumerist lifestyles or proposals for community action. All the model practices she quotes are from the USA, the UK and Japan.

This liberal, humanistic approach is typical of mainstream civil society discourse in China.²³ There has been an upsurge of environmental NGOs in China

21 Smog is, in public perception, associated with industrial pollution and auto exhaust. From 1970 to 2010, China's energy demand increased over 100 times. From 2000 to 2013, the annual production of automobiles increased from 2.07 million to 22.12 million, and automobile sales increased from 2.09 million to 21.98 million. China has surpassed the US as the number one automobile market in the world. Sina Finance, 17 Aug 2012. <http://finance.sina.com.cn/world/20120817/232812884019.shtml>

22 The World Health Organization's *World Cancer Report 2014* found that China, home to 19% of the global population, accounts for one-third of global deaths from lung cancer. The lung cancer mortality rate in China has risen by ten times from 5.46/100,000 persons 40 years ago to 45.57/100,000 persons in 2013. ScienceNet.cn, 18 March 2013.

23 In November 2008, a solicitor's company in Beijing represented 1,773 private car owners to complain to the government against the levying of a proposed fuel tax, stating that fuel prices were much cheaper in the USA; the car owners were portrayed in some mass media as civil society, human rights activists defending public interest against the evil state owned fuel companies. China Daily, 26 Nov 2008.

in the last two decades, partly because they were not regarded as too politically threatening in the eyes of the authorities, and partly because they echoed the mainstream middle class, liberal agenda.²⁴ Saying this, I do not mean to underestimate the impact of *Under the Dome*; it has contributed to underscoring environmental issues in public discourse. Nor do I dismiss the work of thousands of environmental NGOs active in China today. Yet, examining their limitations helps us explore radical and effective alternatives from the perspective of subaltern classes, so that our peasant brothers growing tomatoes can also be beneficiaries. Otherwise, we continue to see phenomena such as these: the first working day after *Under the Dome* received 200 million online hits, environment-related stocks soared on the stock market; organic food markets are rapidly expanding, due to food safety concerns as well as lifestyle choice of the urban middle class, and yet consumerism expands rather than diminishes; state policies regulate reforestation in some strategic regions such as water source regions for Beijing, but at the same time, mega chemical and extraction industries are contaminating water resources in Inner Mongolia and other hinterland regions.

In my view, it is not adequate to explain away the environmental problems in China today largely as an outcome of its industrialization or its export-oriented economic paradigm. Surely the environmental degradation has to do with more than simply following such a development path. I think the probe has to go further to understand this craze for Modernization that not only dominates the pursuit of state authorities, but also pervades common sense in general, so much so that it is not as if the problems do not present themselves, but that they are not genuinely recognized. Like the subalterns that cannot speak, that is, they speak but cannot be heard, (Spivak 1988; Lau and Hui 2005) nature cannot scream, that is, it screams, but nobody seems to be listening.

So long as my tomatoes are clean

I submit one example, water.

Water is the source of life. Everyone understands this. In all children's books or school textbooks, the simple wisdom is there. It is also well known that China's per capita access to fresh water is only 25% of the world average. Since the early 1980s, the decentralization of industries and mining, to be run by township and village enterprises (TVEs) was for some time seen as a stimulus to

²⁴ According to the *China Federation of Environmental Protection 2013 Annual Report*, at the end of 2012, there were 7,881 environmental organizations in China, an increase of 38.8% from 2007 to 2012. http://news.xinhuanet.com/local/2013-12/05/c_118433538.htm

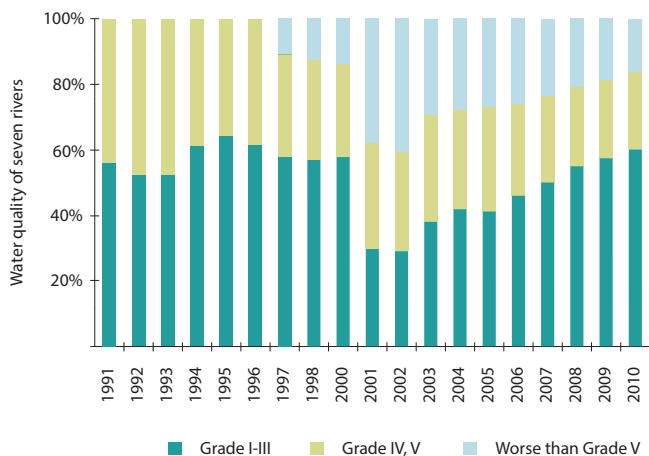


Figure 1. Water quality of seven rivers (Yangtze River, Yellow River, Pearl River, Songhua River, Huaihe River, Haihe River and Liaohe River) in China, 1991-2010.

Sources: MEP Report on the State of the Environment in China, 1991–2010 (He, *et al.* 2012, 26); Guizhen He, Yonglong Lu, Arthur P. J. Mol, Theo Beckers “Changes and challenges: China’s environmental management in transition. *Environmental Development* 2012, 3, 25-38.

Note: According to Environmental Quality Standards for Surface Water (GB3838-2002) in China, the function of surface water is classified into five categories as described below. There are five grades of standard value to match the surface water functional area. Grade I stands for the best quality, while Grade V represents the worst.

developing China’s manufacturing sector and giving the rural sector an opportunity for “development”. This was the reason per capita income in many rural regions increased from the mid 1980s onwards. However, rural industries exploit not just local labor, but also water resources, as a consequence of which soil is also contaminated. Apart from industrial contamination, which is the first major source of contamination, untreated urban sewage disposal, and excessive use of pesticides and chemical fertilizers, are the second and third major sources of water contamination.

The quality of water resources has deteriorated rapidly since the early 1980s, and by the mid 1990s, the situation was so grave that the state was forced to intervene.

Figure 1 shows how water quality reached an alarming low level in 2001-02, when 40% of water from the seven major rivers in China was worse than Grade V. Even with state efforts to clean up, the situation improved only gradually, in 2010, still 20% of the water quality was worse than Grade V. The table below shows the proportion of pollution control investment in terms of GDP for the period 1990-2010.

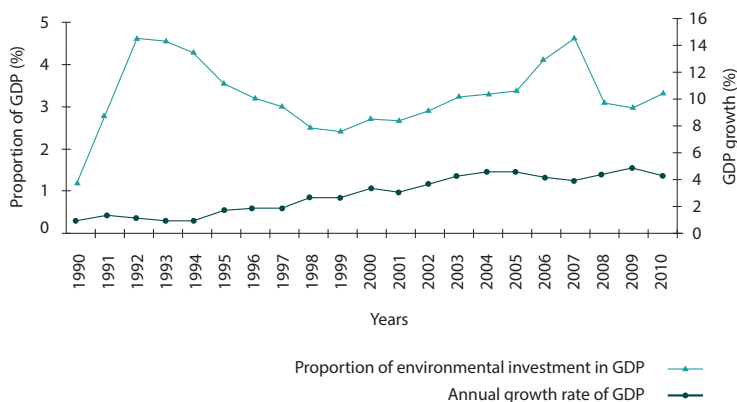


Figure 2. China's growth rate of GDP and proportion of pollution control investment in GDP, 1990-2010.

Sources: *China Environmental Yearbook (1991-2011)* (He, et al. 2012, 29); Guizhen He, Yonglong Lu, Arthur P. J. Mol, Theo Beckers "Changes and challenges: China's environmental management in transition. *Environmental Development* 2012, 3, 25-38.

We can also draw on the calculation of the Inclusive Wealth Index to see the picture.

According to the Inclusive Wealth Report 2014, between 1990-2010, China's growth in terms of GDP is 523%, but only 47% in terms of Inclusive Wealth. The IWI adjusted average growth rate for China was -6.2% in 1991-1995, -2.0% in 1996-2000, -1.7% in 2001-2005, and -5.2% in 2006-2010.²⁵ Thus, if the environmental cost of China's growth is taken into account, its spectacular GDP growth is demystified. China's Environmental Ministry estimates that redressing and preventing water contamination will cost RMB 2,000 billion (USD 320 billion) and at least 40 years, and experts estimate that, considered together, the three most severe contaminations—water, air and soil—will require RMB 6,000 billion (USD 960 billion) to remedy.²⁶

The unchecked contamination of water by industries, mining and agricultural production is a manifestation of anarchy rather than autocracy. The logic of "Development as the Hard Truth" permeates all levels. While clean water resources remain scarce, China continues its export-oriented economy: shoes, electronics, vegetables, fruits... China's population is 19% of the world total, but it produces 67% of the world's vegetables, 50% of its pork, 30% of its rice, 50% of

²⁵ Inclusive Wealth Report 2014: Measuring Progress toward Sustainability <http://mgiep.unesco.org/wp-content/uploads/2014/12/IWR2014-WEB.pdf>

²⁶ Ou Changmei reporting on 4 March 2015 on [www.thepaper.cn](http://www.thepaper.cn/newsDetail_forward_1307689) http://www.thepaper.cn/newsDetail_forward_1307689

Table 1. Economic development, human capital and natural resources in China, 1990-2010.

	1990	2010	Per capita in 1990	Per capita in 2010	% change 1990-2010
Produced capital	1,567,556	11,734,004	1,369	8,748	539
GDP	531,890	3,883,552	464	2,895	523
Wealth	18,571,020	31,969,803	16,216	23,834	47
Human capital	9,210,965	13,446,810	8,043	10,025	25
Natural capital	7,792,499	6,788,988	6,805	5,061	-26
Renewable resources	4,929,045	4,751,033	4,304	3,542	-18
Non-renewable resources	2,863,453	2,037,955	2,500	1,519	-39
Agricultural land	3,689,250	3,793,372	3,229	2,828	-12
Forest resources	1,230,795	957,661	1,075	714	-34
Fossil fuels	2,723,608	1,937,952	2,378	1,445	-39
Minerals	139,845	100,003	122	75	-39

China (in millions of constant 2005 US\$).

Source: *Inclusive Wealth Report 2014: Measuring Progress toward Sustainability*, pp. 220-313.

its apples, and 40% of its oranges; 80% of the greenhouses in the world are in China, heavily consuming water. This means that, with its agricultural exports, China is at the same time cheaply exporting its scarce water resources (Wen Tiejun 2014).

Hence, the term “world factory” is ironic. Some Chinese scholars critical of such a development paradigm call China a “factory owned by the world”. One third of China’s carbon emission comes from its net export; 7-14% of its carbon emission comes from China’s manufactured goods supplying the USA market.²⁷ The mainstream rhetoric in China’s negotiations on climate change policies assumes the position of a “developing country”: developing countries have a right to develop, the burden should fall primarily on the developed countries; China’s per capita carbon emission is only 10% of that of the US; why are we not entitled to enjoy a lifestyle of the North, now that some of us can afford it; it is a conspiracy of the Western powers to contain China’s economic growth... All these assertions have some truth in them, but they emanate more from the position of the state or the middle class, than from the subaltern, and more from industrial than agricultural concerns. China is most vulnerable to the effects of climate change, and drought in the north and floods in the south have been the pattern since the 1990s, which directly affect food production and the conditions

²⁷ Wen Jiajun: “Climate change and the absence of climate justice in China”, *BCR Magazine*, 1 March 2015.

of livelihood of hundreds of millions of peasants. A research project from the Chinese Academy of Sciences estimates that with global warming, water shortage and reduction in arable land, China's food supply by 2050 would be reduced by 14-23%.²⁸

The great transformation of Nature

The modernization paradigm that China pursues has been characteristically privileging industry over agriculture, urban over rural, and middle class over the subaltern; hence, growth statistics and emphases in resource distribution are all geared to such a development paradigm. "Modernization" itself is not questioned, and it justifies the "price" that needs to be paid. What underpins the Modernization fantasy is science and technology, which is nothing but progressive. Emanating from a mindless exploitation of nature is an arrogance and vanity coming from an anthropocentric urge to control. There is the exhilaration about human control over Nature. The Great Leap Forward Campaign of 1958 was promoted with two slogans: the first, human exertion so that the effort of one day would equal the effort of 20 years, so that China could catch up with the UK and the USA in a leap; and the second, a great transformation of Nature, so that mountains would be leveled, lakes would be filled up, and Nature tamed and adapted to human needs. The famines, resentments and disasters ensuing from this campaign forced Mao Zedong to withdraw from his supreme power position for seven years before his come-back by means of the Cultural Revolution. The party-state leadership succeeding Mao has not proved itself cured of this disease of superimposing human will over Nature. "Science and technology" endow such arrogance with the guise of progress.

Many mega projects have been undertaken in China, not only for practical reasons, but also presented as a gesture of defiance against Nature's constraints. In relation to water, two mega, and potentially catastrophic, projects have been implemented since the 1990s: the Three Gorges Dam project, and the South-to-North Water Diversion Project. Both are unprecedented in their scale.

Building a dam at the Three Gorges of the Yangtze River had been in the mind of leaders since Sun Yat Sen in the early 20th century. One deterrent was a strategic concern regarding national defense, fearing a mega dam would be an obvious military or terrorist target. The consequence would be devastating: the population along the Yangtze River is around 400 million, one third of China's

28 "Water shortage will endanger China's food security", Chinese Academy of Sciences, 5 March 2009. http://www.igsnr.ac.cn/kxcb/dlyzykpyd/qybl/200903/t20090305_2114042.html.

total population. Average population density is 220 persons/sq.km., but it reaches 600-900 persons/sq.km. in downstream regions, and 4,600 persons/sq.km. in Shanghai.²⁹ There have been plenty of controversies among scientists and engineers on the pros and cons of the project. When it was finally put to a vote at the National People's Congress (NPC) in April 1992,³⁰ the approval rate was the lowest ever in NPC history: of the 2,633 deputies, 67% voted in favor, and 33% against, in abstention or no vote. The Three Gorges Dam was built to be the largest in the world: the dam is 185 meters high and 2.15 km long, water level reaching 175 meters, with the dam reservoir extending 600 km in length and on average 1.12 km in width. It contains 39.3 cu.km. of water and has a total surface area of 1,045 sq. km. (Hui *et al.* 1997). There was conjecture as to whether the Wenchuan Earthquake of 2008 was a consequence of the Three Gorges Dam, though "scientifically" it is difficult to prove or disprove the cause and effect relation.

The other mega project is the South-to-North Water Diversion Project. It was planned to supply water from the south to regions in the north. The water to be diverted for all three Eastern, Central and Western routes is planned to amount to almost 45 billion cubic metres per year. The Central Route is 1,264 km long, and takes one third of its water from the Han River to the north; Beijing and Tianjin will each get over 1 billion cubic metres per year while Hebei and Henan provinces will also have a share of 3 billion cubic metres each. This is a classic example of metropolitan cities being unsustainable in terms of water and energy resources, and instead of reducing metropolitan population and implementing de-urbanization, the supreme human will is asserted. The resources are mobilized to the power centres to cater for their needs. In the case of Beijing, the seven rivers it relied on half a century ago are now almost dried up or so polluted that they can no longer provide the 3.6 billion cubic metres per year consumed by the capital. Excessive drawing of underground water has caused underground water level of Beijing to drop from a depth of around 12 metres in 1999 to around 24 metres in 2010.³¹ Yet, the question is not just about spending

29 Changjiang Water Resources Commission of the Ministry of Water Resources, <http://www.ctgpc.com.cn/sxslsn/>

30 In the immediate aftermath of the repression of the 1989 pro-democracy movement, when dissent was generally silenced, the Three Gorge Dam project was pushed through the NPC in 1992 whereas it was only in March-April 1989 that an NPC meeting decided to postpone consideration of the project for five years after the book *Yangtze, Yangtze* was published in February 1989 by prominent intellectuals and scientists to publicly lobby against the dam project.

31 "The South-to-North Water Diversion Project will bring huge catastrophes", Shanshui Xiaoyaoyou, 29 Dec 2014.

almost 200 billion yuan (over USD 30 billion) on the Central Route, the question is the contempt for Nature that will definitely invite Nature's retaliation. The south-to-north diversion crosses over 7,000 rivers, tributaries and streams which flow largely from west to east. It is not difficult to imagine the huge disruptions and the immense difficulties in engineering the water to flow above, below or across west-east flowing rivers. The water will flow in a tunnel under the Yellow River, while water pipes will hang in the air in some regions, and if they should break at some point, an avalanche of water will flood the area. Some scientists also warn that such diversions can cause mixing of river waters and contaminations that could be disastrous.

This is yet another example of maintaining sustained provisions to Beijing and cosmopolitan cities, regardless of the huge disruptions in the habitat sustaining the livelihood of rural and provincial populations. So long as Beijing continues to get water, "sustainability" seems to be assured, however irrational the project may be in terms of costs, technological flaws, or transfer of the burden on to other sectors. The "sustainability" of Beijing is what goes into the vision of the state leadership and urban middle class, of the upper echelons of the social and political hierarchy; such partial "sustainability" of the power centre is presented as universal "sustainability". The rural, the marginalized populations, and those who cannot afford to live in cities and to pay for highly priced water do not come into the horizon. Hurrah! Beijing finds its sustainability in the supply of water, energy... And if clean air for Beijing is a problem, industries in the vicinity should be removed to more remote places, which does not require lifestyle changes from the capital's middle class with their automobiles.³²

Modernization and growth at all costs

Still, what we see here is that the reality of the ecological crisis is too real for the ruling elite to ignore. In response, they resort repeatedly to measures of management placed in the hands of experts serving the status quo. The experts managing the crises set out to do so with a very different agenda than that of the affected people who resist. Where can the experts lead us with their effort to maintain growth so that the development of "affluence" will not be disrupted? According to Andre Gorz, the exit from capitalism will happen one way or an-

³² It was only during the politically extraordinary period of the APEC meeting in November 2014 in which cars in Beijing with even or odd numbered license plates were allowed on the road only on alternate days, coupled with other extraordinary measures such as forbidding most construction or industrial activities. thus, "APEC blue" was assured for the skies above Beijing.

other. “De-growth is... imperative for our survival. But it presupposes a different economy, a different lifestyle, a different civilization and different social relations. In the absence of these, collapse could be avoided only through restrictions, rationing and the kind of authoritarian resource-allocation typical of a *war economy*.” (Gorz 2010, 27).

In the modernization discourse in China, “de-growth” is almost unthinkable, even if it is an undeniable fact that China’s so-called “growth” under the Reform in the last 35 years has fostered gross economic and social injustice and has incurred environmental devastation which renders large sections of the population vulnerable, and undermines the conditions for the quality of life for the majority of the population. Man-made ecological catastrophes could in one moment wipe out the “gains” of decades of so-called “progress”.

Yet, the Modernization paradigm has gone unchallenged in the discourse of the ruling elite and mainstream intellectuals. Some all too familiar assertions are, for instance: China must rise above its humiliation and violation by the imperialist powers; its only salvation lies with self-strengthening movements starting in the late 19th century, unequivocally articulated during the May 4 Movement of 1919 with the banner “For Science and Democracy”, and practically pursued after 1949 with a modernization path modelled after the West. After a century, the 2007 launch of lunar orbiter Chang’E1 and the 2008 Olympics were applauded as a triumphal return of China’s power: the slumbering dragon had awakened. The Asia Infrastructure Investment Bank, launched in October 2014, rivals the World Bank, the International Monetary Fund and the Asia Development Bank. “To be a strong power”, or “to resume being a strong power”,³³ unfortunately takes the development paradigm of the western powers almost as its only point of reference, and the only way for China’s nation-building.

33 Before imperialist aggression against China, the country’s commerce constituted one-third of global trade. The British attempted to redress the trade imbalance by substituting opium for silver. The opium trade for Britain between 1821 and 1840 was worth at least 100 million yuan, equivalent to 20% of the chinese currency of the time, and 10% of the total revenue of the Manchu Dynasty. (Liu Huijun: “Opium trade and the outbreak of the Opium War”, 9 Nov 2009, http://blog.sina.com.cn/s/blog_3f448faa0100fv0i.html). When the Manchu Dynasty was determined to eliminate opium, Britain went to war with China, China lost the Opium War and ceded Hong Kong to the British in 1842. In 1901, the joint invasion of eight imperialist powers not only looted the palaces in Beijing, with numerous items now residing in the British Museum and elsewhere, China was forced to pay a war indemnity to the Eight Nation Alliance of the equivalent of per capita 1 tael of silver, which amounted to 450 million taels of fine silver (equivalent to USD 333 million) to be paid over 39 years on a rising scale with a 4% interest charge. After 39 years, the total amount paid was almost 1 billion taels, or 37,000 tons, of pure silver. Deciding on the indemnity on a per capita basis was a deliberate insult that was no less damaging than the material plunder. See http://en.wikipedia.org/wiki/Boxer_Protocol

In this regard, whatever the party-state regime claims to be the nature of China's society and economy today—since June 1981, officially China is in the “preliminary stage of socialism” that will last for a long period³⁴—“exit” from capitalism and avoidance of collapse is not on the agenda.

Thus, in China, we find a situation like what C.A. Bowers refers to, in which “what appears to be a progressive development may contribute to destructive consequences that generally go unrecognized”. (Bowers 2001) For us to understand how the negative consequences of development in China, such as those detailed in this paper, “generally go unrecognized” from the subject position of the ruling elite, we have to question the shaping of subjectivity, which is much more than a matter of knowing what is previously not known, which may only require a level of rational learning that takes into account what has not been included in one's consideration; this does not require the changing of mindset, or the transforming of the configuration or boundaries of one's more or less settled subjectivity. In the words of Gregory Bateson, the issue is about changing the unconscious rules that govern one's ways of relating to others and to the self, critiquing the formation of non coercive rules that govern one's ways of thinking, seeing and experiencing, as well as facilitating the breaking of such rules and the forming of new ones. (Bateson 2000, 274-8) The radical change must concern itself with what Felix Guattari (2000) calls the three ecologies: not only the ecology of the social, and the ecology of nature, but the ecology of the self as well.

For those identified with the subject position of the ruling elite, China is forced to modernize in order to protect its pride and sovereignty; however, the “forced” modernization of China is not simply a cure with extremely destructive side effects. It is destructive in such a way that people who are made to embrace it are also made oblivious to its force of destruction by being deprived of any other vantage point except those made proper by the dominant forces of modernization and capitalism.

Indeed, the dangerous aspects of modernization in China today should be obvious enough for anyone willing to confront them, yet those who are so identified with the criteria, norms and values of the discourse of developmentalism allow their capacity for experience and imagination to be greatly diminished by notions of modernity and linear progress, the benevolent power of science and technology, and monetized notions of “wealth” and “poverty”. In China's development paradigm for growth and marketization, “wealth” is increasingly a

34 “The resolutions on a number of questions of the Party's history since the founding of the People's Republic of China”, adopted by the 6th Plenary Session of the XI Central Committee of the Communist Party of China.

monetary term, and the determining factor of poverty is “money”. Marketization puts at its center the measurement of relations in terms of money, which is the “god” that produces poverty. Markets determined by capitalist relations can only thrive on the basis of polarization by various means of deprivation and marginalization. Social polarizations and inequalities in China have increased, concurrent with “growth” and “poverty reduction”. With marketization constituting the driving forces of China’s modernization and development, the more the “growth”, the greater the socio-economic and ecological injustice.

Antonio Negri and Michael Hardt argue that “modernity must be understood as a power relation: domination and resistance, sovereignty and struggle for liberation” (Negri and Hardt 2009, 67). They further argue that “the projects of modernity and modernization became key to the control and repression of the forces of antimodernity that emerged in the revolutionary struggles. The notions of ‘national development’ and the ‘state of the entire people,’ which constantly held out an illusory promise for the future... merely served to legitimate the existing global hierarchies.” (*ibid.* 92) Indeed, they observe that “[r]eally existing socialism’ proved to be a powerful machine of primitive accumulation and economic development” (*ibid.* 93).

It is no accident that the ruling elite in China succumb to the developmentalist ideology for the pursuit of “growth” and “development”; the pursuit of modernization after the fashion of “the West” provides them with powerful machines to establish hierarchical structures in the maintaining and producing of disparity, privilege, and a system of inclusion and exclusion. The forces of state and capital that gain from and defend such a development paradigm by all means, are substantial vested interest power blocs: the party-state regime retaining its legitimacy of rule through continual economic development; the nouveau riche exercising their political, monopolistic power in appropriating public and state property; the state and private capital in China and global finance capital partnering and contesting between and among themselves... The ways in which finance capital has permeated China’s economy and created havoc deserve intense scrutiny and analysis. This cannot be dealt with in the present paper.³⁵

35 An excellent review of the eight crises in China’s economic development in the six decades of PRC has been conducted by Wen Tiejun (2013). An evaluation of China as an emerging country compared to six other emerging countries is a project I have been part of, and a book is forthcoming, with Chinese and English versions. For related research reports, please see www.emergingcountries.org

Articulating socio-economic justice with ecological justice

In this paper, I argue for taking seriously the cultural dimension which, rather than being relegated to the level of “superstructure” or of secondary/complementary importance, is part and parcel of the development paradigm. A radical change in the perceptions, values and preferences of the majority of the population must be pursued for a meaningful reversal of the current developmentalist trajectory. Most people would subscribe to the “idea” of “sustainability” because this buzzword is so much in vogue in the mass media, in school education, or in state and U.N. discourse. The questions we have to probe are: why is this term so widely accepted but so scantily heeded? How do we enable the majority to see how partial, minority interests displace majority needs in the hegemonic interpretation of what “sustainability” means in our political and social life, thus rendering “sustainability” void of “justice”? How can people be convinced to struggle for a paradigm of sustainability *with* justice, seeing the two as interdependent? How can the relations between humans, and the relations with nature, be de-monetized? *Under the Dome* has been watched by over 200 million people in China. How can the spectacle go beyond media gossip or middle class alarm, and be taken up as an inducement towards a movement for radical ecological and socio-economic justice?

In debates among progressive intellectuals in China, in my opinion, the major conceptual issue on Modernization is still inadequately pursued. The evils of Modernization may be reckoned: it is a logic of an elite minority plundering the majority within and among nations; it is savagery clothed in a civilized suit and tie; it is taking the human species along with the earth to imminent destruction... yet, Modernization is still largely accepted as a necessary evil. Perhaps, it is a Marxist formulation of “revolution by stages”, that only after going through capitalism can the basis be laid for socialism and communism; or a nationalist formulation that only going through Modernization can China become powerful enough as a nation-state to rival the imperialist powers; or a Darwinist formulation that the more one lags behind, the more exploited one is; therefore, the faster China is modernized, the higher it goes up the chain. And a utopian formulation can come “afterwards”—when China is modernized to a certain extent, it can progress to alter-modernity or even anti-modernity.

However, this paper has shown how China is deeply mired in the dangerous mud of ecological and socio-economic injustices in its modernization path. Confronting China is not the question of more progress or more growth, but multiple tasks of reversing dire damages already inflicted on its ecology, society and culture. Alternative ways of reading history and conceptualizing sustainability are most urgent. I have found some theoretical formulations and empirical experiences on the common and the community very useful for

rethinking China's trajectory, and I hope to introduce some of these debates in China.

On the question of articulating ecological justice with socio-economic justice, C.A. Bowers (2001) offers illuminating views. In line with Frederique Apffel-Marglin's criticism of modernity presented in *The Spirit of Regeneration*, (Apffel-Marglin 1998) Bowers criticizes particularly the progressive left for uncritically embracing the legacy of Enlightenment, allowing themselves to be trapped in the anthropocentrism, Eurocentrism, rationalism and racism of modernity, the driving forces behind imperialism, colonization and modernization. The success and evolution of scientific reason enable the construction of "Man" taking the place of God, and placed at the centre of the (humanized) world inscribed in binary modes of thinking. Michel de Certeau (1986) points out in "The Politics of Silence" that the destructive onslaught of modern development has deep cultural roots in the divide between subject and object, which enables both nature and human beings to be regarded as resources and open to optimal exploitation with the declining regulating hold of ethics and religion on scientific reason. Thus, for Bowers, "development" and "progress" cannot be taken for granted as the unquestionable direction of humanity. The ensuing ecological crisis is certainly directly linked to the intense techno-scientific transformation the Earth is made to undergo in order that capitalism may "flourish" throughout all corners of the world. Yet this cannot be simply regarded as a testimony of "Man's" stupidity for not all "men" are equal, and the harms and sufferings caused by ecological destruction are never evenly borne by the people, whether they be harms done to nature, toxic substances produced in industrial production, or the depriving of people of land and home to make way for the mega technologies that claim to serve humanity but in fact produce and presuppose conditions of centralizing power and money in a few hands.

Thus, the ecological destruction wreaked by modernization is not simply a mistreatment of nature. It is certainly a political question of placing the social cost of development on those lacking the muscle to protect themselves, of the destruction of cultures and communities through modern development and education in the name of empowering them for and integrating them into the modern world while in fact eradicating any defence against rampant commodification. Hence, ecological justice as Bowers understands it demands that the question of social justice should take the ecological destruction of nature, habitat and livelihoods into consideration. It is not simply a question of the future sustainability of humankind, but more importantly the question of destroying the basis, the knowledge and the skills for communities to organize their interdependence into productive and creative cooperation and self-management in the generation of autonomy and the common domain (commons).

On the question of the commons, Negri and Hardt offer an interesting re-reading of Marx. Citing Marx in a reply to the question whether capitalism had to be developed in Russia before the struggle for communism could begin, or whether the basis for communism was already there in the peasant commune, Negri and Hardt quote Marx as saying, “we must descend from pure theory to Russian reality” (Negri and Hardt 2009, 88). Marx pointed out that “historical necessity of the destruction of communal property in Western Europe... was not... a universal history that immediately applied to Russia and anywhere else.” In Russia’s case, “the task of the revolution is to halt the ‘progressive’ developments of capital that threaten the Russian commune... and [concentrate] all its forces so as to allow the rural commune full scope, [so that] the latter will soon develop as an element of regeneration in Russian society and an element of superiority over the countries enslaved by the capitalist system” (*ibid.* 88-9).

According to the reading of Negri and Hardt, here Marx hits on an intuition without being able to articulate it. That is, “the revolutionary forms of anti-modernity are planted firmly on the common” (*ibid.* 89). Regarding this, Negri and Hardt quote Jose Carlos Mariategui’s observation after travelling to Europe in the 1920s and studying socialist and communist movements there. On his return to his native Peru, Mariategui finds that, in common with “the pre-revolutionary Russian peasant communities that interested Marx”, the Andean indigenous communities “defend and preserve common access to the land, common forms of labour, and communal social organization,” and that “[t]he Indian, ... in spite of one hundred years of republican legislation, has not become an individualist’ but instead resists in communities, on the basis of the common” (*ibid.* 89).

Thus, the anti-modernity impetus emerges from below, from the initiatives and resistance of the subaltern, defending the common for survival, livelihood and community bonding. Mahatma Gandhi’s vision for a non-violent future for India is a confederation of every village as a republic, self-reliant in production of food, clothing, everyday necessities, art and education.³⁶ His ideas were rejected in practice by Jawaharlal Nehru and other Indian nationalists as anti-modern, but the formulation with village communities as the primary social, economic, political and cultural entities managing and living on the commons offers an alternative to modern nation-state organizing. Today in India, the people’s science movement has taken on the heritage of Gandhi and Marx in pointing out that the pursuit of sustainability cannot be reduced to a question of technological innovations; science and technologies as they are practised now

36 <http://www.mkgandhi.org/indiadreams/chap24.htm>

cannot come to our rescue, for sustainability implies the bringing forth of an alter-modernity different from the prevailing Western model of modernization made possible by science and technologies under the command of capital. M.P. Parameswaran, one of the leaders of the All India People's Science Network, proposes the idea of a "Fourth World" which is to be a network of hundreds of thousands of local communities which are increasingly becoming self-sufficient³⁷ (Parameswaran 2015). In practice, the people's science movement has mobilized tens of thousands of volunteers for sustained work for decades in the villages to enhance self sufficiency in village economic and cultural life. The difficulties they encounter going against the current of "modernity" can be imagined, but they have also contributed to some great experiments such as the People's Planning Campaign in Kerala (Parameswaran 2008).

I have also been much inspired by two significant practices for sustainability based on the traditions and wisdoms of indigenous communities—the Aymaras in Peru, and the Zapatistas in Mexico (Dai and Lau 2006). Neither of them contends for statehood. They demand and practice local community governance. They demonstrate self-organization and cooperation evolving in the process of living together as part of the habitat in and through which they obtain their means of subsistence, and together with which they maintain the ecological balance of the habitat. Their idea of the common (commons) covers all means of living together defying reduction to the claims of property, whether private or public. The means of living together refer not only to the so-called "natural resources" such as water, land, and air; knowledge, languages, social relations, affects, cultures, beliefs, customs, etc., that evolve in the processes of self-organization and cooperation are also necessary means of living together. They are all included in the nature of the common, not meant to be owned privately or publicly, but to be shared. They come into being and change in the course of things in and through sharing, wherein lies their creative power in responding to the call and demand of the changing environment in which people cohabit.

In China, the movements and struggles for socio-economic and ecological justice require active participation of the people, not as individuals but as communities. In the last two decades, there are people's initiatives to counter the adverse effects of developmentalism and marketization, and there are self-organized peasant cooperatives, local trading of organic food products, community-supported agriculture, food-safety campaigns, rural-urban interactions, and environmental protection efforts. (Wong and Sit 2015) The rural reconstruction

37 M.P. Parameswaran, a physicist, Marxist, Gandhian and environmentalist, proposes this concept based on his critique of the USSR as a "post-capitalist" state. He was officially expelled from the Communist Party of India (Marxist) in 2004 for this deviant formulation.

movements that started some 15 years ago have involved thousands of people, especially the younger generation (Wen and Lau 2012).³⁸ These efforts are, however, inadequate if they cannot be articulated into the agenda for ecological *with* socio-economic justice. The initiatives in China can learn much from interacting with groups such as the Commons Strategies Group for a paradigm shift towards the commons (Bollier and Helfrich 2012), or the movements for food sovereignty across the world (Herrera and Lau 2015).

My tomatoes are clean

This is the fourth anniversary of the March 11 Fukushima catastrophe, and the 29th anniversary of the Chernobyl disaster. These traumatic incidents cry for socio-economic and ecological justice. In Japan, after March 11, I interviewed some farmers in Fukushima displaced from their homes. They said, TEPCO gave their village some funds for traditional festivals and for road infrastructure, and pledged that Japan's nuclear power plant technology was the most advanced in the world.³⁹ If they had foreseen the catastrophe that now makes them homeless refugees, and contaminates their soil for thousands of years, they would have stood firm against the building of the Daiichi Nuclear Power Plant. Indeed, it took the catastrophe to change public opinion. Over 70% of Japanese people are now against nuclear power.⁴⁰ However, this catastrophe is not enough for the public to vote against the Shinzo Abe government, which is pro nuclear power, but promises Abenomics based on growth strategy. In China, the fifth day after the Fukushima accident, Wen Jiabao, Chinese premier at the time, ordered an overall check on all nuclear power plants in China, and a hold on approval of constructing new nuclear power plants before the "Nuclear Safety Planning" is formulated. But what now?

Scientists in China have warned of the many risks involved in developing nuclear power: how nuclear power plants in inland regions risk a meltdown in case of lack of cooling water, but most of the plants under construction are inland; how the 22 plants under construction are along the Yangtze River and

38 This co-authored paper reviews a movement of urban youth voluntarily going to the countryside or taking up organic farming in the last decade in China.

39 TEPCO, Tokyo Electric Power Company, is the largest electric utility in Japan and the 4th largest electric utility in the world. In July 2012 TEPCO received ¥1 trillion from the Japanese government to handle post-3.11 damages and thus became substantially nationalized.

40 A poll published in June 2012 by the Washington-based Pew Research Center showed 70% of Japanese surveyed wanted nuclear power reduced or eliminated, and 80% distrustful of the government's ability to properly manage the nuclear industry and be candid about safety and environmental concerns. *Los Angeles Times*, 15 June 2012.

prone to contaminating the river water; how spent fuel will amount to 10,000 tons by 2020 but China's transportation capacity for spent fuel is only 16% of the demand; how the long-distance transportation of spent fuel from the eastern coast to the northwest is beset with accident risks; how the storage of nuclear waste is extremely inadequate and expensive; how China has experienced over 800 earthquakes above level 6 since 1900, and the fact that China, with its 7% of global territory, suffers from 33% of continental earthquakes...⁴¹ Despite all these warnings, today, in China, 21 nuclear power plants are running, and another 27 are under construction. China comes first in the number of nuclear power plants under construction in the world, constituting one-third of the total.⁴² Again a "first" which ingratiates the ego.

*Oh, when will they ever learn?
My tomatoes are clean
Oh, when will they ever learn?
My tomatoes are clean*

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⁴¹ Wang Yinan, "Why I do not agree to restarting inland nuclear power", *China Economic Weekly*, 4 Aug 2014. <http://www.ceweekly.cn/2014/0804/88964.shtml>

⁴² *People's Daily*, 5 Dec 2014.

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