



**China Council for International Cooperation on Environment and
Development (CCICED)**

**China's Environmental Protection
And Social Development**

CCICED Task Force Summary Report

CCICED 2013 Annual General Meeting

November 13-15, 2013

Task Force Members

Consultant:

- **Mr. Ning Jizhe**, Professor, Minister of the Research Office of the State Council, China

Co-chairs*:

- **Ms. Elizabeth Dowdeswell**, President and CEO of Council of Canadian Academies
- **Mr. Fan Bi**, DDG, Department of Integrated Research, Research Office of the State Council, China

Task Force Members*:

- **Ms. Sarah Cook**, Director, United Nations Research Institute for Social Development (UNRISD)
- **Mr. Jan Bakkes**, Senior Project Leader, Global and European Outlooks, PBL Netherlands Environment Assessment Agency
- **Ms. Andrea Westall**, Strategy and Policy Consultant; Visiting Senior Research Fellow, Open University
- **Ms. Gørild Heggelund**, Senior Climate Change Advisor, UNDP China
- **Mr. Han Wenke**, Professor, DG, Energy Research Institute of National Development and Reform Commission
- **Mr. Liu Yingjie**, DG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Xia Guang**, Professor, DG, Policy Research Center for Environment and Economy, Ministry of Environment Protection
- **Ms. Wang Min**, DG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Huang Haoming**, Professor, Secretary General, China Association for NGO Cooperation, Research Fellow

Coordinators:

- **Mr. Wang Fei**, DDG, Department of Integrated Research, Research Office of the State Council, China

- **Ms. Gørild Heggelund**, Senior Climate Change Advisor, UNDP China
- **Mr. Wang Peishen**, Former Senior Environmental Specialist, the World Bank

Research Support Team:

- **Mr. Chen Zuxin**, DG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Sun Guojun**, DG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Yu Hai**, Director, Policy Research Center for Environment and Economy, Ministry of Environment Protection
- **Mr. Guolishi**, DDG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Wang Zhuoming**, DDG, Department of Integrated Research, Research Office of the State Council, China
- **Mr. Zhang Yongliang**, Research Assistant, Policy Research Centre for Environment and Economy, Ministry of Environment Protection
- **Ms. Lu Lisha**, Research Assistant, the National Renewable Energy Center

** Co-Chairs and Task Force members serve in their personal capacities*

Summary

Since the start of its reform process, China has prioritised economic growth in its strategic planning and policy making. The unprecedented speed of economic development has increased standards of living for Chinese people but also led to enormous pressures on the environment and negative impacts on citizens' health, current and future livelihoods, public safety, social cohesion and with inequitable access to resources and basic public environmental services. Population growth, increasing consumption levels and urban migration add to these pressures.

The idea of an 'Ecological Civilization' provides a vision for a harmonious society, sharing the fruits of development, and safeguarding social justice and equity. However there is an urgent need to deepen the currently weak understanding of environmental and social relationships, and to identify priority fields for action, in order to achieve this vision.

This Executive Report of the CCICED Task Force on Environmental Protection and Social Development examines the critical linkages between the environment and social development in China, suggests a preliminary framework to guide policy and practice in both the short and long term, as well as providing some specific policies for implementation and areas for further study.

We have proposed a framework for policy-makers which: develops an awareness of appropriate values and norms; enables and constrains the appropriate behaviour and participation of citizens, enterprises and other social organisations; and develops coordinated governance systems which improve legislation, social and environmental risk management, and the distribution and coverage of public services. The Task Force also identified five principles to guide policy-making: multi-stakeholder participation; coherence between long and short-term visions and targets; policy coherence between environmental and social policy; a strong legal foundation; as well as equity and justice in the distribution of rights and responsibilities, access to environmental resources and participation in decision-making.

Overall, we proposed a Vision 2050/Action 2020 framework to connect the goal of an Ecological Civilization by the middle of the 21st Century with policy decisions and actions necessary in the near term. We also have sufficient evidence to recommend several immediate actions

Recommendation 1 Elaborate a vision of coordinated social, economic and environmental development for 2050 and develop a phased. plan of policy and actions that will be essential to achieve that vision (Vision 2050/Action 2020)

Recommendation 2 Promote social norms and values related to ecological civilization through education and training plans for cadres, schools, vocational training and universities; conceptual and policy-oriented research; and through a variety of media and actors.

Recommendation 3 Encourage everyone in society to exercise their appropriate roles. Specific actions could include advocating healthy and sustainable lifestyles, enhancing public participation, promoting acceptance by enterprises of environmental and social responsibilities, or supporting the further development of environmental and social organizations.

Recommendation 4 Strengthen public governance through: a “whole of government” approach which for example: creates policy coherence between environmental and social development; is underpinned by the 13th FYP renamed the National Economic, Social and Environmental Development Plan and reporting annually; establishes an environmental and social assessment mechanism for major policies; improves environmental and governmental performance evaluation systems.

Recommendation 5 Establish mechanisms to assess, communicate, and mitigate the social risks of environmental protection.

Recommendation 6 Improve the level and distribution of public environmental services.

The work of this Task Force was preliminary. Elaborating and further developing the proposed framework will be a major undertaking. Several strategic studies on complex priority issues would be useful: understanding how to promote shifts in lifestyle and behaviours; developing the legal underpinning for coordinated social development and environmental protection; and, understanding how to make available the financial resources required for implementing and optimizing the positive relationship between environmental protection and social development.

Understanding this relationship will allow China to better develop effective policies that will avoid unintended consequences and maximize the potential for successful outcomes.

Table of Contents

Summary	i
1. INTRODUCTION	1
2. THE CURRENT CHINESE SITUATION	6
2.1. Introduction	6
2.2. Accomplishments in linking environmental protection and social development	7
Improving environmental behaviour on the part of various social actors	8
Corporate Social Responsibility	8
Legislative and administrative framework for environmental protection	9
2.3. Problems at the intersection of environmental protection and social development.....	9
Increasing mass incidents caused by environmental problems	10
Public health hazards caused by environmental degradation	11
Environmental degradation and poverty.....	11
New social injustices brought about by environmental issues	11
Mounting pressure on resources and the environment with rapid urbanization	13
2.4. Obstacles to environmental and social development	14
Environmental perceptions and lack of information	15
Inadequate fulfilment of social responsibility by all actors in society	15
Deficiencies in the public governance system.....	16
2.5. International observations on environmental protection and social development in China	17
3. PERSPECTIVES FROM INTERNATIONAL PRACTICE AND THEORY	18
3.1. Introduction	18
3.2. Environmental protection and social interaction since the Industrial Revolution	18
Historical review	18
Lessons from historical experience	21
3.3. Theory and practice at the intersection of environmental protection and social development	24
Key policy issues and research fields	24
Current Opportunities	30
3.4. Explorations for a suitable framework linking environmental improvement to societal action	31
4. A FRAMEWORK FOR POLICY AND ACTION	34
4.1. Basic principles.....	34
4.2. Vision 2050/Action 2020.....	35

4.3 Policy fields and actions	37
5. <u>RECOMMENDATIONS AND CONCLUSION</u>	40
5.1. Introduction	40
5.2. Recommendations.....	40
5.3. Final considerations	46
5.4. Conclusion	47
Acknowledgments	48

1. INTRODUCTION

Sustainable development is broadly understood as a process that must consider simultaneously economic, environmental and social factors. This requires a systemic approach to policy, with an understanding of complex linkages, synergies and trade-offs among these three policy domains. However it has proven to be difficult to conceptualise or implement—in China or elsewhere.

Since the start of its reform process, China has prioritised economic growth development has led to enormous pressure on the environment in the form of air, water and soil pollution, resource over-exploitation and environmental degradation. Harmful impacts are most directly experienced in areas with soil depletion and deforestation, air and water pollution, water scarcity, and industrial environmental accidents that directly affect public safety, health and livelihoods. All citizens are exposed to risks associated with climate change¹, ecological damage that affects the stability of water basins and coastal zones, and contamination of soil that affects food safety. Population growth combined with increasing incomes, and changing consumption patterns (such as the inclusion of more meat in the daily diet), further exacerbate pressures on an already constrained natural resource base.

Ecological and biodiversity degradation is felt less directly by all, but is visible in deforestation and desertification and loss of species. Loss of intangible benefits such as the beauty of China's landscapes, and the loss or threat of extinction of iconic species such as pandas and river dolphins, are also of significance to China: indeed, their protection and survival provide hope and inspiration for the creation of a 'Beautiful China'.

It is not surprising then that while economic growth has generated impressive improvements in the living standards of the Chinese people, it has also led to rising inequalities and conflicts related to the environment. Current environmental conditions have created serious concerns for public health, and also contribute to the unjust distribution of resources and consequent living standards across China. An uneven pattern of economic and social development, across regions and social groups maps in different ways onto environmental inequalities, while social and economic inequalities are exacerbated by environmental problems in specific geographic contexts. Poor rural populations are more likely to be located in ecologically rich but fragile regions that are vulnerable to environmental degradation; they may depend on such environments for their survival, yet further degrade the environment in the pursuit of viable livelihoods. The poor, whether rural or urban, have few if any choices about where to live, so are more likely to suffer from poor air and water quality, which in turn negatively affects their health and productivity. In cities, living conditions for both poorer people and the emerging middle class may not allow for a 'moderately well-off standard of living' even

¹ Intergovernmental Panel on Climate IPCC Working Group I assessment report, Climate Change 2013: the Physical Science Basis concludes that human influence on the climate system is clear, and this is evident in most regions of the globe.

where income levels are above poverty level. At the same time, an educated and financially well-off middle class now has higher expectations and demands for acceptable environmental conditions.

Such factors have led to an intensification of social conflict around environmental concerns. Unrest may be associated with changing land use, siting of industrial activities, and acute incidents such as oil or chemical contamination, or chronic pollution problems such as air quality – problems that disproportionately affect the poor and tend to reinforce pre-existing inequalities or deprivation. Environmental issues are often at the core of protests against large projects, particularly when there is uncertainty about the magnitude of negative social and environmental impacts. Sometimes these concerns may be more perceived than real but nonetheless they need to be addressed. Limitations in the existing information disclosure system, leading to a lack of accurate, freely accessible information, sets the stage for the spread of rumours or inaccurate information, which in turn can aggravate tensions.

China recognised the importance of environmental protection at a relatively early stage in its reform. The Second National Conference on Environmental Protection in 1983 explicitly emphasized the need for a coordinated advancement of both economic development and environmental protection. With the increasing severity of environmental problems, however, the government more recently prioritised a balanced emphasis on economic growth and environmental protection in its 11th (2006-2010) and 12th (2011-2015) Five-Year Plans. Some positive results have been achieved in industrial restructuring, energy conservation and emission intensity reductions, while coordinated efforts in both environmental protection and economic development have been implemented through a series of laws and regulations, programs, and policies. Despite these efforts, major problems persist, with the health impacts of environmental damage in particular attracting increasing public attention.

Consequently attention is now being directed at trying to better understand relationships between the three dimensions of environment, economy and society. This includes

- **The relationship between environment and society.** Critical aspects include the relationship between the environment and population, poverty and inequality, health and wellbeing, consumption, disaster prevention and mitigation, the provision of basic services, the improvement of peoples' living environment necessary for good health and livelihoods, and the role of public participation in environmental governance.
- **The relationship between environment and economy.** This covers areas such as links between the environment and economic growth, sustainable agriculture and rural development; industrial growth and environmental pollution prevention and control; sustainable development in the transportation and communications sectors; and sustainable energy production and consumption.
- **The relationship between resource utilization and ecosystems.** This covers the protection and sustainable use of natural resources; protection of the air, water

and soil ecological systems; biodiversity conservation; sustainable utilization of the oceans and seas; desertification control, protection of the atmosphere, and environmentally harmless solid waste management.

For the past 25 years, the notion of sustainable development involving a mutually reinforcing relationship between development of the environment, the economy and society has been represented in a simple diagram such as Figure 1-1. In practice, achieving synergies and managing trade-offs between economic, social and environmental policies and actions necessary for sustainable development has been difficult—as recently reflected in the 2012 Rio Sustainable Development Conference, and has led to efforts to define a set of global objectives for sustainable development.²

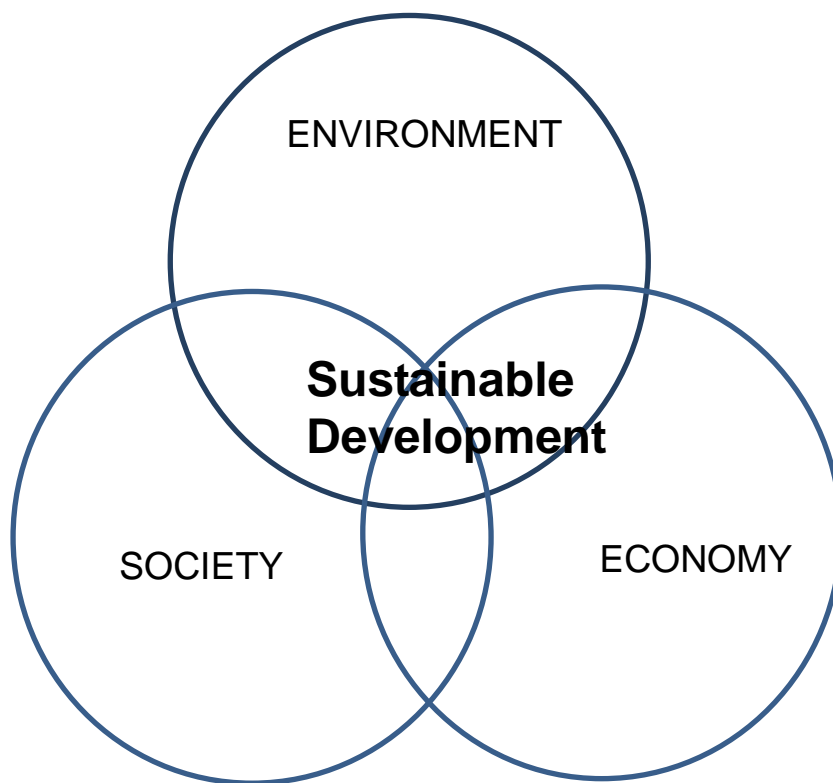


Figure 1-1. A view of sustainable development

Within China, the concept of ‘Ecological Civilization’, introduced in 2007, provides a vision for a harmonious society, sharing the fruits of development, and safeguarding social justice and equity.³ At the 18th Communist Party Congress in November 2012, the concept of Ecological Civilization was incorporated into the Party’s constitution, and became a fifth element added to the existing four pillars of development policy - economic, political, social and cultural.⁴ As a result, concerns over the relationship

² <http://sustainabledevelopment.un.org/index.php?menu=1300>

³ See the CCICED 2008 Issues Paper *Environment and Development for a Harmonious Society*. 26 pp.

⁴ http://china.org.cn/china/18th_cpc_congress/2012-11/15/content_27118842.htm

between environmental protection and social development have reached the highest political level, creating an urgent need to deepen the understanding of environmental-social relationships and identify priority fields for action.

This Executive Summary Report of the CCICED Taskforce on Environmental Protection and Social Development examines the critical linkages between the environment and social development in China, with a view to suggesting a preliminary framework that can guide policy and practice both in the short and the long term. It also proposes some specific policies that could mutually support both environmental protection and social development. By comparison to the extensive work done by CCICED over the past two decades on the relationship between environment and economy, the current Task Force's effort is ground-breaking in its focus on social development, but therefore can be expected to yield only tentative conclusions and recommendations at this stage.

Three important questions (Box 1-1) have been at the centre of the Task Force's work. Our Executive Summary Report draws upon information reported by the Chinese members of the Task Force in a longer report,⁵ and the opinions and expertise of both Chinese and international team members based on a series of Task Force meetings and field visits held from August 2012 to September 2013. The Task Force also focused on urbanization as an issue that illustrates both the linkages among the three dimensions of sustainable development and the opportunities that exist for developing policies and practices that are mutually reinforcing. More complete referencing to support observations and conclusions drawn in this Executive Summary Report can be found in the longer report.

Box 1-1. Key questions to be addressed in this report

1. What is our understanding of the current and future relationship between environmental protection and social development in China?
2. What are the most important opportunities for policy and interventions that would address simultaneously and positively the twin objectives of environmental protection and social development, while minimising unintended consequences?
3. In a rapidly changing global context, how can China combine short-term actions, mid-term objectives and long-term visions to achieve social justice and sustainable development?

Chapter 2 focuses on China's environmental and social achievements and challenges, identifying critical environmental, health and social issues and reflecting on the linkages among them. Chapter 3 draws upon international experience in environmental and social development, summarizes domestic and international research findings, and constructs a conceptual framework based on notions of values, behaviour, and public governance. Chapter 4 illustrates how this framework could be operationalised by specifying objectives for action over various time horizons—by 2015, 2020, 2030, and 2050. Finally, Chapter 5 concludes by proposing some specific policy recommendations. Some terms used in this Report are explained in Box 1-2

⁵ CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. In Chinese.

Box 1-2. Key terminology

Social development is both a *process* of change leading to the desirable objectives or outcomes decided by a society, and the *outcomes* or measurable achievements of those objectives. Definitions tend to include material, social and cultural achievements (such as good health and education); access to the goods and services necessary for decent living; a sense of security; and the ability to be part of a community through social and cultural recognition, participation and political representation. Social development is shaped by institutions and actors (such as households, communities, civil society organisations, the media, private or market enterprises, or the state). A core element of any social or 'people-centred' development is participation by all people in decision-making processes that affect their lives; along with mechanisms of accountability, redress and access to justice.

Environmental protection refers to activities, strategies and policy instruments aimed at safeguarding and prudently using the environmental resources that people and societies depend on for their livelihoods and well-being. The disruption of ecosystems, or specific environmental impacts such as pollution or climate change by, for example, economic activities can affect present and future human livelihoods, as well as health and wellbeing. Environmental protection behaviours are influenced by factors such as legislation, individual and group ethics, and education. Increasing understanding of the complex and inter-dependent relationships between living and non-living parts of the environment are seen to require more collaborative policy and action across government departments or between stakeholders to improve information and understanding, manage trade-offs, create synergies and improve policies and implementation.

A **public service** is provided by a government either directly or through the government financing or subsidising private or social organisation delivery. These services are those which society believes should be available to all people in order to live decent lives, regardless of their income. Examples vary across countries but tend to include energy provision, water, civilian and military security, environmental protection, waste management, education, social security and social services.

A **public good** is an economic definition of a product that one person can use or consume without reducing its availability to others (non-rivalrous), but from which no one can be excluded access (non-excludable). Examples include sewage systems, public parks, or air. They therefore tend to be provided or protected by the public sector.

Environmental justice focuses on the fair distribution of environmental benefits and burdens as well as equal access to decision-making and recognition of community ways of life, local knowledge and cultural and power differences. There therefore tends to be an emphasis on equality. Wider political and economic inequalities are believed to result in higher levels of environmental harm. In other words, those who are relatively more powerful or wealthy gain benefits from economic activities that degrade the environment. The relatively poor tend to disproportionately bear the costs of such activities.

Environmental rights relate to such things as: ensuring human access to natural resources that enable survival, including land, shelter, food, water and air; the ability to enjoy natural landscapes; and securing environmental justice. They can also include non-human rights such as the survival of a particular species. Environmental rights tend to be seen as basic human rights since people's livelihoods, health, and even existence depend upon the quality of, and access to, the surrounding environment. Environmental rights also tend to include rights to information, participation, security and redress.

2. THE CURRENT CHINESE SITUATION

2.1. Introduction

China has made some progress in harmonizing economic, social, and environmental development as it continues its quest towards sustainable development. However, a number of daunting challenges and obstacles remain. It is not possible in this short report to discuss fully all aspects of either China's achievements or major problems and issues regarding the relationship between the environment and social development. There are many sources that do so in both Chinese and international literature. The main purpose of the Chapter is instead to introduce some of the themes of significance to the relationship between social development and environmental protection, and to provide some examples of both progress and difficulties.

Broad public awareness and major expressions of concern about pollution and environmental change became important in China 20 to 25 years ago. However, from the beginning of history, there is evidence that when China was primarily an agricultural society, the Chinese people took measures to improve and manage their local environmental conditions. Traditional land use practices such as rice paddy terraces and multi-species agriculture and husbandry had positive results for the environment. During often devastating natural disasters, revolution and war, the Chinese people have demonstrated resilience and the capacity to live as a conserving society, with per capita domestic consumption rates, sometimes close to the baseline levels for survival. Thus, until recently, despite its size, China has had a low total ecological footprint in comparison to western industrial countries.

Chinese society was however poorly prepared for the speed of environmental degradation and rising levels of pollution that accompanied a natural resource-intensive process of economic development commencing in the 1980s. In rural areas, the direct impacts on health and livelihoods quickly became major concerns of the rural population. Economic and industrial development, along with creation of infrastructure such as railways, roads and pipelines, has seriously affected the environment and social structure even in isolated communities. With the emergence of an affluent urban middle class, citizens are today increasingly aware of or engaged in environmental issues and activities. Millions of people are expected to migrate to urban areas in the next decade, increasing pressure on the use of energy and natural resources and intensifying the demand for social services.⁶ The changing climate, extreme weather events and natural disasters impact millions of lives each year.

Given the prioritisation of economic growth in the early reform period, insufficient effort or expenditure were dedicated to environmental protection or social development. This changed with the latest (11th and 12th) five year plans (2006-10 and 2011-15). These plans more clearly integrate environmental and social goals, considering both the impact of social and economic development on the environment and the contribution of

⁶ China Human Development Report. 2013: *Sustainable and Liveable Cities: Toward Ecological Urbanisation*, Beijing: China Translation and Publishing Corporation

environmental protection to equitable and sustainable development. The adoption by the Communist Party of *Ecological Civilization* as one of five pillars driving policy is a powerful signal that opens up new possibilities for a strong and symbiotic relationship between environment and social development.

This Chapter describes some of China's recent achievements in environmental and social development. It also raises some unresolved challenges and questions, including how to respond to strong expressions of public protests; how to enshrine in legislation and policy the concept of environmental and social justice; how to develop indicators that accurately and consistently describe the state of the natural and social environment; how to improve the flow of information and increase knowledge to encourage a more informed dialogue about environmental and social impacts; and how to better understand expectations and deficiencies in the respective social responsibilities of civil society, enterprises and all levels of government.

2.2. Accomplishments in linking environmental protection and social development

The First National Conference on Environmental Protection in 1973 placed environmental protection on the national agenda, reflecting heightened environmental awareness on the part of the Chinese Government. Subsequently the Government's increased attention to environmental issues became evident in the introduction of laws and the promotion of such measures as cleaner production, environmental labelling, and corporate environmental information disclosure. The environmental awareness of some Chinese enterprises has improved to the point where corporate social responsibility (CSR) has been introduced, and where banks and other financial bodies are incorporating environmental criteria into their lending practices.

The level of public environmental awareness is on the rise,⁷ as the impacts of environmental degradation are more directly felt, as public understanding of and attention to environmental issues improve, and as the public is more directly involved in activities promoting environmental benefits.

In a 1998 survey, environmental issues ranked fifth after social security, education, population, and employment as an area of public concern. However, in a 2008 poll, environmental pollution ranked third as a public concern.⁸ More recently, media reports about air pollution have also played an active role in raising public awareness and participation in efforts to support amendment to *Air Quality Standards* regulations.

A rising number of non-governmental organisations (NGOs) have come to play an important role in environmental protection. Since the birth of China's first environmental NGO, Friends of Nature, in Beijing in March 1994, the numbers have expanded rapidly:

⁷ Guodong Yan, Jiancheng Kang, et al. 2010. *China Trends in Public Environmental Awareness*. China Population, Resources and Environment, 2010 No. 10.

⁸ Data come from *Survey Reports on National Public Environmental Awareness 2007*.

by the end of 2012, a total of 7,928 environmental NGOs had registered with the Ministry of Civil Affairs (MCA).⁹

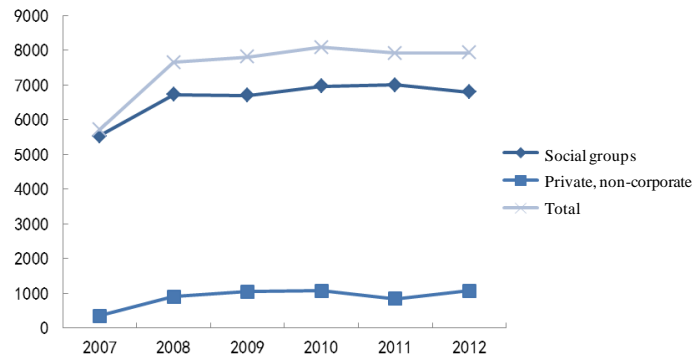


Figure 2-1. Number of environmental NGOs registered in MCA, 2007-2012

Improving environmental behaviour on the part of various social actors

There are signs that public and social organizations and some larger enterprises are also acting to improve the environment. The involvement of these actors is facilitated by the development of environmental regulations, policies, and standards, social supervision and management, environmental information disclosure and environmental impact assessment of major projects. Public engagement is also increasing, as illustrated in 2013 by demands for a better environment and for public involvement in national and local environmental decision-making triggered by issues such as air pollution in Beijing and the PX project in Kunming.

Corporate Social Responsibility

Amid growing attention from the media, the public and the government, Chinese businesses have become more active in implementing their corporate social responsibility. With the influence of two important priorities embodied in the 12th Five-Year Plan – improved livelihoods and energy saving and emission reduction – some enterprises have effectively developed business management plans that strategically focus on sustainability. The *Grant Thornton International Business Report 2011*¹⁰ showed that Chinese mainland enterprises are increasingly aware of social responsibility, driven by such external factors as public opinion, tax incentives, and regulatory policies. That report also showed that Chinese enterprises placed the most emphasis on human resources and environmental protection. In their telephone survey of some medium and large companies in mainland China, 84% of respondents claimed active involvement in employee health and welfare; 75% stated that they improved products or services in order to mitigate adverse environmental and social impact; 69% and 63% of respondents

⁹ See CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. 22pp-23pp, 253pp-254pp. In Chinese.

¹⁰ See *Corporate Social Responsibility: the Power of Perception*. 24 pp in the IBR 2011 report. http://www.internationalbusinessreport.com/files/IBR_2011_CSR_Report_v2.pdf

reported efforts to conserve energy and reduce pollution emissions respectively; and 39% were said to have begun to calculate their own carbon footprint.

The Task Force visited the Elion Resources Group – a well-known example of one corporate group where social and environmental objectives are jointly considered in the restoration and sustainable development of China's seventh largest desert area.

Legislative and administrative framework for environmental protection

Environmental protection has grown in importance in national decision-making, especially since the 11th FYP period. In 2008, the State Environmental Protection Administration (SEPA) was upgraded to the Ministry of Environmental Protection (MEP), directly under the State Council. Systems for integrated management, pollution prevention and control and supervision and law enforcement have gradually improved. To date, the National People's Congress (NPC) has created 10 environmental laws and 30 resource protection laws. Among them, the *Criminal Law* dedicates a chapter to the "crime of destruction to environmental and resource protection" and the *Tort Liability Law* interprets "environmental pollution liability" in a special chapter. Local people's congresses and governments have developed more than 700 local environmental rules and regulations, and the departments of the State Council, have issued hundreds of environmental regulations, including 69 regulations formulated by the MEP. The SEPA issued *Interim Measures on Public Involvement in Environmental Impact Assessment* and introduced *Interim Measures on Environmental Information Disclosure (Trial)* in 2006 and 2007. More recently, the proposed amendment to the *Law on Environmental Protection* embodies environmental and social provisions, while the new ambient air quality standards released in February 2012, and the new *Atmospheric Pollution Prevention Action Plan* released in September 2013, demonstrate a shift in orientation to addressing environmental health hazards.

In theory, these efforts should provide some additional legal protection to the Chinese public in the expression of environmental demands. Furthermore, a number of new initiatives – in areas such as green credit, environment pollution liability insurance, power tariffs for desulphurization, improved coal-fired power generation, ecological compensation for watershed and mineral development, and ladder tariffs - have been implemented or are being tested in many parts of the country, and have some potential to bring social benefits. However, the real impact will only be seen when these initiatives are assessed, and when legislation, policies and practices are implemented effectively. Weak enforcement is a widespread concern.

2.3. Problems at the intersection of environmental protection and social development

In spite of such progress, China currently faces significant challenges: environmental issues are already a major factor affecting social development (in areas such as health, livelihoods and equitable access to resources) and social stability, and may compromise future economic and social development.

Increasing mass incidents caused by environmental problems

Environmental petitions and complaints have increased by an average of 29% annually since 1996 (Figure 2-2), focusing on such issues as food and water safety, persistent organic pollutants (POPs), hazardous chemicals, and hazardous waste. China witnessed 21,985 “unexpected environmental events” (environmental incidents) between 1995 and 2010 in such areas as water pollution, air pollution, solid waste pollution, noise pollution, and earthquake hazards. The MEP has handled 927 environmental incident cases since 2005.

Examples of such disputes and mass incidents include the dispute on the Environmental Impact Assessment (EIA) for the Yunnan Nujiang hydropower development plan in 2004, the Xiamen PX project, the Beijing Liulitun waste incineration plant in 2007¹¹, the Liuyang cadmium pollution incident in Hunan in 2009, Oji Paper’s wastewater discharge project near Qidong, and the Shifang molybdenum-copper project in Sichuan in 2012¹².

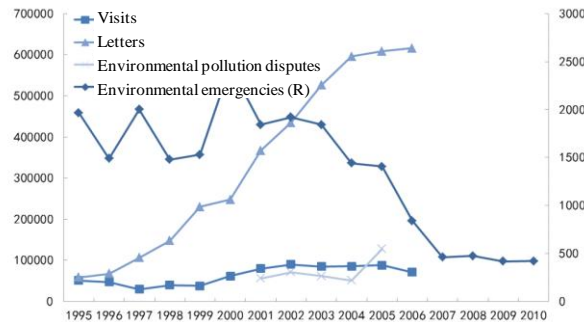


Figure 2-2. Number of environmental petitions, environmental pollution disputes, and environmental emergencies in China, 1995-2010¹³

As a result, construction projects have been suspended or relocated due to strong public opposition and government-led projects such as the Liulitun incineration plant failed to proceed as scheduled because of the strong expression of public concern. Of even greater concern, danger to public health has sparked mass protests, which has even led to the occupation of government offices, judiciary organs, and companies involved, and there have been some cases of rioting. These negative incidents may be factors in social instability. On the other hand, they also highlight the need for greater attention to environmental impacts and scientific monitoring and better mechanisms for early public input to planning of potentially controversial activities.

¹¹ Wanxin Li, Jiayan Liu, Duoduo Li. 2012. *Getting Their Voices Heard: Three Cases of Public Participation in Environmental Protection in China*. *Journal of Environmental Management*, 2012, 98: 65pp-72pp.

¹² Gilbert, N. 2012. *Green Protests on the Rise in China*. *Nature* 488(7411): 261pp-262pp.

¹³ Data source: Environmental Statistical Bulletin, 1995—2011.

Public health hazards caused by environmental degradation

Surface water pollution affects the major economically developed and densely populated areas in China because of the concentration of industry in these areas. Farmland contamination is caused in part by mining and non-ferrous metal smelting. Many Chinese are directly exposed to environmental pollutants at levels much higher than international standards. Given the high concentrations and long duration in the environment of some pollutants, China's large and concentrated population base, complex and diverse channels of exposure, and historical accumulation of environmental pollution, health effects of environmental degradation are difficult to fully eliminate in the short term or perhaps even the medium term. The situation is made more complex by health hazards caused by new environmental pollutants, and the difficulty, in a situation where pollution has many causes, in identifying the main pollutants, pollution sources and health hazards.

The *2010 Global Burden of Disease* study by the World Health Organization (WHO) indicates higher stroke and heart disease mortality in China because of PM_{2.5} pollution. Disease caused by outdoor air pollution grew by 33% during 1990-2010, and 20% of lung cancers in 2010 can be attributed to PM_{2.5} pollution.¹⁴ A study in Xi'an indicated that, with every 100µg/m³ increase in the PM_{2.5} concentration, the total mortality, and the mortality for respiratory diseases, cardiovascular diseases, coronary heart disease, stroke, chronic obstructive pulmonary disease (COPD) would increase by 4.08%, 8.32%, 6.18%, 8.32%, 5.13%, and 7.25% respectively.¹⁵ In addition, environmental endocrine disruptors (EEDs), persistent organic pollutants (POPs) and new materials and chemical contaminants can be assumed to further complicate the picture of potential health impacts.

Environmental degradation and poverty

Environmental quality plays a decisive role in people's health, productivity or earning capacity, security, energy supply, and living conditions. In particular, environmental degradation exacerbates the vulnerability of the poor in rural areas who are dependent on land and other natural resources, and intensifies poverty in some regions. In turn, rural poverty may lead to overuse of very limited resources which accelerates ecological deterioration, giving rise to a vicious cycle. Yet the link between these impacts in China's development policies has not been fully recognized.

New social injustices brought about by environmental issues

Against the backdrop of deep-rooted regional, urban-rural, gender and ethnic inequalities in China, environmental and social injustices have become increasingly prominent. These inequalities are reflected in income, access to environmental resources and services, environmental damage, and environmental pressure, and health and social security. In the field of resources and the environment, injustice is manifested in the sharp differences evident in the possession and allocation of environmental resources, and in access to public environmental services among regions and groups. Existing studies related to

¹⁴ WHO. 2010. *Global Burden of Disease*. http://www.who.int/healthinfo/global_burden_disease/en/

¹⁵ Ke Zhao, Junji Cao, Xiangmin Wen. Urban Residents' Mortality and PM_{2.5} Pollution in Xi'an. *Journal of Preventive Medicine Information*, 2011,27 (4): 257pp-261pp.

education and health care call for the integration of public environmental services into the Government's social objectives, given that public environmental services serve as an important means to create a green economy, economic restructuring and the desired "service-oriented governmental transition".¹⁶ Moreover, the *12th Five-Year Plan for Public Services* underlines environmental protection as an important aspect in the equalization of basic public services. Solid waste treatment and urban and rural drinking water safety are considered priorities in environmental protection, and access to public environmental services is also an important indicator of environmental justice.

However, studies reveal distinct provincial differences in the environmental performance of basic public services (see Figure 2-3). Most eastern provinces enjoy better public environmental services than do provinces in the central and western regions. Inequality also exists between economically developed areas and economically underdeveloped areas, and between urban and rural areas.¹² It is evident that, if public environmental services are neglected in the acceleration of economic development in underdeveloped areas, environmental injustice will become more widespread and the relationship between environment and social development will deteriorate further.

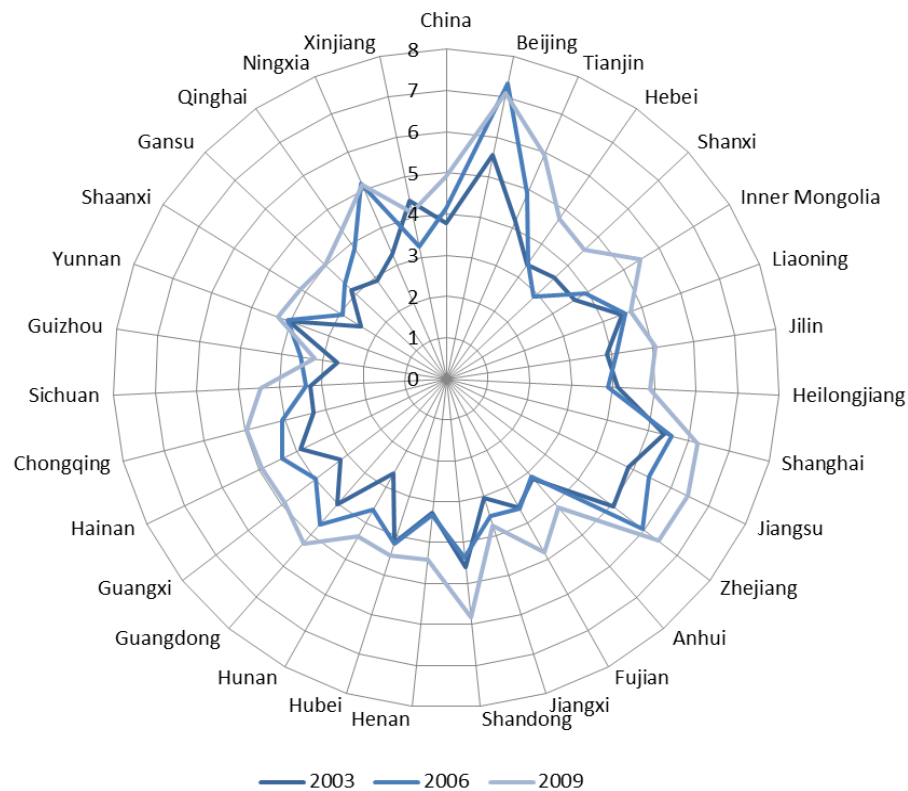


Figure 2-3. Assessment of basic public environmental services by province, 2003—2009¹⁷,

¹⁶ State Council. *National 12th Five-year plan (2011-2015)*, 2011.

¹⁷ Education, health care and transportation, environmental protection are all important components of the public service system. In China, environmental public service is performed by central and local

Mounting pressure on resources and the environment with rapid urbanization

According to the national census, China's urban population grew from only eleven percent in 1949¹⁸ to thirty-six percent in 2000 and now to over fifty percent.¹⁹ China's urbanization rate has accelerated and more than 10 million people flow into cities each year, creating huge challenges for local governments. By 2030, it is projected that the urbanization rate will reach 70% and 300 million people will have moved from the countryside to the cities (see Figure 2-4).

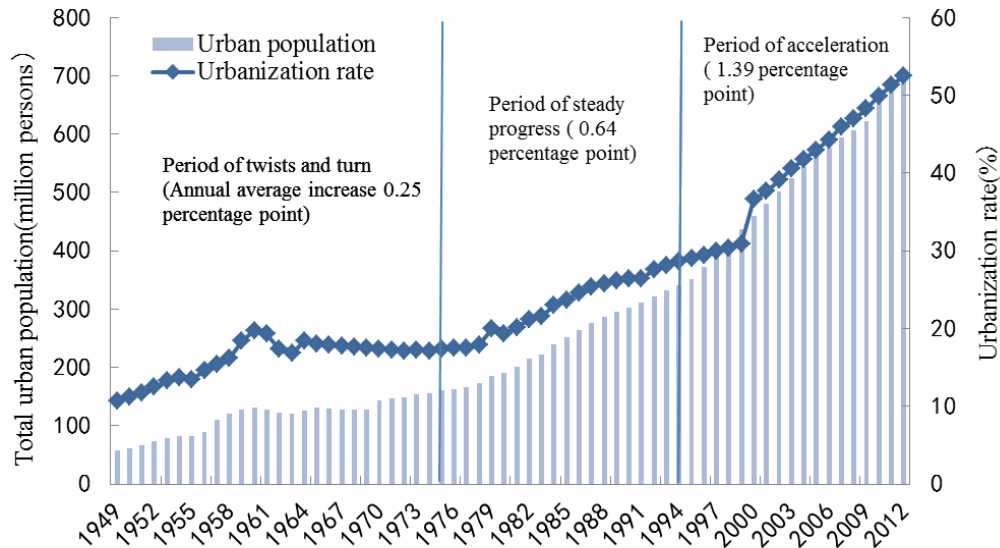


Figure 2-4. Stages of China's Urbanization

The core challenges are to consider how to reconcile the intensive utilization of resources and the carrying capacity of the environment, how to integrate the development of city centres and the surrounding hinterland with ecological protection, and how to coordinate urban and rural development and equitable access to public services among regions. The Wuhan Urban Circle and the Xiangtan Urban Agglomeration, for example, were authorized by the State Council in 2007 and 2008 respectively as pilot projects in the construction of "resource-saving and environment-friendly society". Subsequently, several local governments have begun to explore new models of urbanization.

Urban land use efficiency is low. Land devoted to urban construction land grew by 6.04% annually during 2000-2010, much higher than the rate of urban population, 3.85%. As a result of the rapid expansion of urban space and construction, cultivated land is dwindling.

governments for ensuring the basic supply of high-quality environmental products, such as environment infrastructure construction, environmental management, water resources protection and pollution treatment. Hongyou Lu, Guangping Yuan, Sixia Chen, et al. 2012. The Quantitative Measurement of Basic Public Service Efficiency of China's Provincial Environment. *China Population, Resources and Environment*, 2012, 22 (10): 48pp-54pp

¹⁸ Third National Population Census 1982, 5th National Population Census 2000

¹⁹ National Bureau of Statistics, China Statistical Yearbook 2012

Over 400 of 650 cities face water shortages, of which about 200 are serious. The spatial distribution of cities and towns does not match the carrying capacity of resources and the environment. Urban agglomerations are not designed appropriately. Mounting population pressure in some large cities intensifies the degree to which environmental carrying capacity is exceeded, while middle and small-sized cities, due to the disparity between cluster industry and population needs, have not fully exploited their potential. Uncoordinated urban spatial distribution and size structure push up economic, social and environmental costs. Further, urban construction frequently ignores the protection of existing natural ecosystems, and in most cities and towns, the native natural ecosystems are withering quickly. Due to the mounting costs of the construction of urban environmental infrastructure coupled with weak environmental protection, regional urban environmental problems are increasing.²⁰

Current models of urbanization will therefore face bottlenecks in water, available land for construction, energy (see Figure 2-5), and eco-environmental quality. Environmental issues arising from urbanization will become increasingly intertwined with social issues, creating a huge challenge for sustainable development. Forecasts for urbanisation suggest there will be a net increase of 1.89 times in the demand for energy, 0.88 times water, 2.45 times construction land, and 1.42 times, eco-environmental overload pressure.²¹

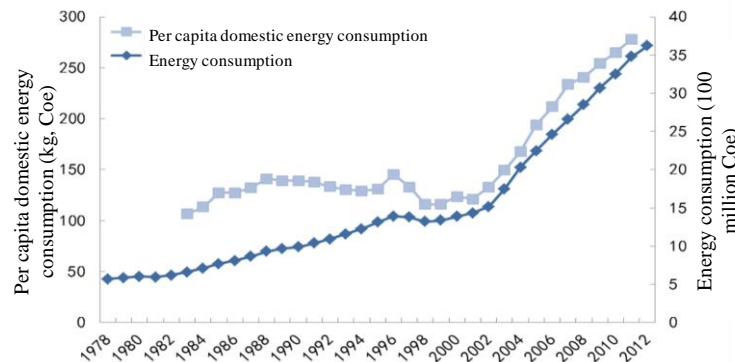


Figure 2-5. Energy consumption in China's rapid urbanization process 1978-2012²²

2.4. Obstacles to environmental and social development

Addressing the above problems at the intersection of environmental and social problems requires attention to a number of critical obstacles. Here we focus on three clusters of bottlenecks identified as significant obstacles to progress. These are: lack of knowledge; inadequate identification and fulfilment of appropriate roles of all actors in the system; and, deficiencies in governance.

²⁰ See CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. 218-243. In Chinese.

²¹ Chuanglin Fang, Jiawen Fang. *The Analysis on the Resources and Environmental issues of China's Urbanization*. China National Conditions and Strength, 2013, 4: 33-34.

²² Source: China Statistical Yearbook 2012

Environmental perceptions and lack of information

At present in China there is inadequate research, knowledge and understanding about the inextricable relationships between the environmental and social dimensions of sustainability. Consequently those relationships, whether positive or negative, are not yet a well-developed focus of policy concern. The prioritisation of economic growth at all levels of government means that it has been difficult to design a development path that also meets social and environmental objectives. Frequent and serious environment pollution incidents in recent years, such as groundwater contamination, illegal dumping of hazardous toxic waste, and intentional concealment of pollution are all too evident.

The Chinese public is understandably concerned about local environmental issues that directly affect their daily lives, and in the absence of information or alternative channels for redress increasingly resort to protest. Inadequate knowledge may also lead to government planning, such as spatial or urban planning, that may meet economic objectives but cause unintended impacts on the environment or fail to recognize the way in which the daily lives of people are affected.

Challenges also stem from the lack of public trust in government and enterprises. This is in part a result of poor quality or lack of access to information, for example, official environmental and social reports. The belief that environment-based mass incidents are compromising social stability is leading to government measures that affect the use of media, particularly regarding information sources that may prove to be false or open to varying interpretation. It is therefore increasingly difficult to reach a consensus on policies and measures for environmental protection and social development, or to achieve public acceptance of these policies, especially when the process requires compromise or negotiation.

Inadequate fulfilment of social responsibility by all actors in society

Sustainable development requires the fulfilment of roles and obligations by all actors. Businesses, the public and social organizations are not yet fulfilling their responsibilities in ways that would contribute to coordinated environmental and social development. Nor have they been adequately empowered or mobilized to do so. Raising the levels of personal and institutional commitment to practice a green lifestyle, and to engage fully in consistent support of sustainable, green development is difficult.

Although the Chinese leadership, in its drive for Ecological Civilization, has recognized the need to actively engage people to help improve policy design, delivery and implementation of sustainable development, the actual mechanisms for doing so are still lagging. The full range of activities that could systematically and consistently allow for monitoring, investigating and reporting on social and environmental impacts and changes have not yet been implemented. This lack of supportive systems and infrastructure also make it difficult to create a vibrant and active civil society around these concerns. Similarly, corporate social responsibility is in its infancy in China. There is also limited understanding about the role and limits of the market in meeting social and environmental objectives.

Deficiencies in the public governance system

Our preliminary analysis has pointed to legislative, financial and structural deficiencies that limit the realization of positive impacts that would come from understanding and acting on social, environmental and economic objectives at the same time. For example, although the investment in environmental protection has increased, local government funding remains inadequate because of fiscal decentralization, and thus the quality and delivery of environmental and social public services among regions is uneven and may create social instability. Notwithstanding the considerable efforts and declarations of the Chinese Government, a green lifestyle has not been realized and the intensity of resources and energy use has not been optimized.

The rule of law underpinning environmental and social development is weak in its implementation and coverage. Increasing public awareness of environmental benefits and the growing incidence of transboundary damage highlights weaknesses in environmental compensation mechanisms and inadequate mediation capabilities. Increasing environmental violations and mass disputes have underlined inadequacies in the operability and enforcement of environmental regulations. Environmental petition and litigation procedures are lengthy and complex, not well understood or managed by officials or the courts. There is also poor access to, and limited availability of, appropriate redress for people and communities.

In terms of policy development, the current policies on social development and environmental protection and their implementation, as well as economic policies are formulated separately and implemented independently. This lack of integration weakens the likelihood of creating a harmonious and productive relationship between them. Not only are opportunities for synergy not identified and maximized but opportunities to deal with inevitable tensions before they become serious problems are missed. Furthermore, public and stakeholder involvement remains inadequate in policy design, formulation, implementation and evaluation.

This also means that incentives that promote negative behaviour patterns continue to dominate. For example, existing societal norms, pricing of goods and services and how policy outcomes are measured, influence what is deemed to be important and are not challenged. Local government officials are not fully trained, evaluated or rewarded on the basis of achieving environmental protection or social development goals. Reinforcing status norms among the public, such as automobile ownership, or wasteful eating patterns, leads to unsustainable consumption.

Finally, China has profound inequalities between different geographic areas, between rural and urban residents, between genders and ethnicities. These inequalities manifest themselves in income, in access to and benefits from environmental resources and services and in relative exposure to environmental harm and threats to health and social protection. Reducing these inequalities for present and future generations is more likely to be achieved with policies and actions that are based on an improved understanding of the relationship between the environment and society.

2.5. International observations on environmental protection and social development in China

Three major multilateral organizations have previously addressed the relationship of environmental, economic, and social development in China and the need for policy harmonization among them. Brief highlights of these reports appear in Box 2-1. It is noteworthy that the OECD recommendations, presented two planning cycles ago, remain appropriate today, and indeed have become even more urgent.

Box 2-1. International studies on environment and social development in China

1. The Organization for Economic Cooperation and Development (OECD) stated in its *Environmental Performance Review of China* (2006)²³ that, to improve integrated environment and social development, improvements are needed in six areas: (1) increasing the proportion of the population with access to better environmental services (including safe drinking water, basic sanitation and power.); (2) accelerating the collection of environmental health and health-risk information; (3) improving the quality, frequency, scope, and reach of information disclosure on exposure to environmental health hazards; (4) improving channels for the general public's access to environmental information; (5) improving environmental education and dissemination; and (6) strengthening government cooperation and partnerships with enterprises, the public and NGOs to promote corporate social responsibility.
2. The World Bank indicates in *China 2030*²⁴ that China has the potential to become a modern, harmonious, creative, and high-income society, but reaching that goal requires a new development strategy. This strategy should include the implementation of structural reforms to strengthen the foundations of a market-based economy; the acceleration of the pace of innovation and the creation of an effective and creative innovation system; seizing the opportunity to "go green" through a mix of market incentives, regulations, public investments, industrial policies, and institutional development; the promotion of social security for all by facilitating equal access to jobs, finance, quality social services, and portable social security; and ensuring the provision of adequate financing to local governments to enable them to meet their responsibilities.
3. The *China Human Development Report 2013* of the United Nations Development Programme²⁵ conducted in-depth research on China's urbanization process from the perspective of human development and long-term sustainable development. The Report argues that human development should be the over-riding issue and primary benchmark in China's urbanization process and that strengthening governance in the social sphere is the key to future success. In the absence of strong and effective governance structures and mechanisms, it will be difficult to meet the complex challenges inherent in future urbanization.

²³ OECD. 2006. *Environmental Performance Review China*.

²⁴ World Bank. 2012. *China 2030: Building a Modern, Harmonious, Creative, High-income Society*.

²⁵ UNDP-China. 2013. *China Human Development Report 2013: Sustainable and Liveable Cities: Toward Ecological Civilization*.

3. PERSPECTIVES FROM INTERNATIONAL PRACTICE AND THEORY

3.1. Introduction

This chapter elaborates on international experience and perspectives concerning the relationship between environment and society. It examines: (1) the historical association of environmental protection and social development particularly since the industrial revolution; (2) international theoretical research on environment and social development, including alternative disciplinary perspectives; and (3) construction of a conceptual framework for the integration of environmental and social development building on the widely accepted definition of sustainable development. The chapter concludes with some implications for environmental protection and social policies in China.

3.2. Environmental protection and social interaction since the Industrial Revolution

A look into environmental history reveals that the relationship between humans and the natural environment has undergone profound changes in the transition to a modern economy and lifestyle that began with the Industrial Revolution. Yet in that transition from agricultural society, when the dependence on water, land and biological diversity was absolute, to an urban and post-industrial society, the point is sometimes lost that people still have an absolute dependence on nature for their existence and well-being. However much societies may believe that it is possible to “have dominion over nature” or to substitute for the many natural goods and services provided by ecosystems, there are rude awakenings, sometimes in the form of “natural disasters” that often are the result of human action²⁶.

Historical review

This short review (Box 3-1) examines key landmarks at the intersection of environmental, social and economic development, starting with the Industrial Revolution. This marked a critical transformation, with a large share of agricultural labour moving to urban areas, as well as changing production and consumption patterns. Industrialisation enhanced the capacity of humans to use and change their natural environment, while industrial activity led to the deterioration of ecological resources and environmental pollution. Throughout this process, environmental and social issues became increasingly closely linked.^{27 28}

²⁶ Some scientists believe human influence on the environment is so great that we have entered the Anthropocene epoch. <http://www.anthropocene.info/en/home>

²⁷ A more detailed timeline of key environmental events and actions from the early 1960s to 2012 is available from IISD. (International Institute for Sustainable Development.)

http://www.iisd.org/pdf/2012/sd_timeline_2012.pdf

²⁸ For regionally differentiated assessment worldwide, considering timelines and linkages between environment and social issues, see for example www.unep.org/GEO and Kok, M, et al.: Environment for Development —Policy Lessons from Global Environmental Assessments. Netherlands Environmental Assessment Agency. the Netherlands: Bilthoven; 2009 – www.pbl.nl

Box 3-1 Timeline of some events and actions affecting environment and society

Time	Major Events and Actions
1760s -	The first technological revolution occurred, in which the steam engine was widely used as a power machine. Social wealth expanded dramatically alongside the production machines. Social lifestyles changed with the development of a large industrial economy. Migration to cities and industrial towns created unsanitary living conditions and local pollution. Natural resources were harvested on a larger scale, often from other less developed countries around the world.
1820s -	The world's population, human activities, and environmental pressure mounted. Because the rapid population growth happened in Europe and large emigration to the Americas, Oceania and Africa, the distribution throughout the world changed as well. ²⁹
1870 – 1920	The second technological revolution was marked by the wide application of electric power, internal combustion engines and new means of transportation, new means of communication, and the birth of the chemical sector. The world moved into the "electric era" and increased use of oil-based energy production which fuelled development. Western countries took a number of measures and enacted a series of laws and regulations, such as the British Alkali Act and Rivers Act, Plant Management Regulations of Osaka, Japan, and early pollution prevention regulations of the United States and France. Conservation measures and national parks became popular. Water supply and sanitation was the focus of attention, especially in the new era of urban planning.
1900 -	Local social organizations were active in nature and landscape conservation and tried to achieve the access to and long-term ownership of natural and cultural heritage. Urban planning linked public housing promotion with environmental and social objectives by improving the indoor and outdoor living environment.
1920-1950	Air, soil and waters were subjected to on-going pollution with the formation and development of coal, metallurgy, and chemical industries, consumer and war-time industries thrived but without much pollution control or eco-efficiency, and post-war urbanization led to suburban development. The first great climax of pollution issues arrived, including the farmland water pollution in Ashio copper area in Japan, air pollution in Belgian Maas valley industrial zone, photochemical smog in Los Angeles and the Donora smog.
1950 -1970	The third technological revolution broke out, with significant inventions and breakthroughs in atomic energy, computer, aerospace engineering, and biological engineering. The Western powers competed for development after World War II, accelerating the industrialization and urbanization processes. Health problems increased dramatically as a result of industrial activities and private car use. A variety of air and soil pollution and food contamination incidents intensified, including the Minamata disease in Japan during 1953-1965, the Toyama Prefecture during 1955-1972, and the rice bran oil incident in 23 counties in Japan, including Aichi and Kyushu in 1968. The Western countries began to set up specialized agencies for environmental protection, and promulgated and developed a series of environmental regulations and standards to strengthen the rule of law, especially after the USA established the National Environmental Policy Act in 1969. The awareness at the international dimension of environmental change (cross-border air and water pollution, regional and global issues) was enhanced, for example through the International Joint Commission between Canada and the USA.
1970 – 1990	People became aware of and demanded action concerning such environmental issues as illegal logging and land reclamation, overfishing, stratospheric ozone depletion, chemical pollution, and climate change and demanded action. The first Earth Day (1970) involved thousands of organizations.

²⁹ Vries, Bert JM de: Sustainability Science. Cambridge University Press, 2013. Data as compiled in the History Database of the Global Environment (HYDE) <http://themasites.pbl.nl/tridion/en/themasites/hyde/>

	<p>Major watersheds in industrialized countries were gradually restored, with urban air pollution brought under control.</p> <p>New environmental departments and non-governmental departments began to use specialized, integrated and systematic means to address issues associated with public health, natural resources and landscape.</p> <p>Frequent major industrial accidents forced the adoption of more stringent laws and regulations and also increased voluntary action such as Responsible Care in the chemical industry.</p> <p>The United Nations Conference on Human Environment was held in 1972 in Stockholm and launched the International Human Dimensions Programme on Global Environmental Change (IHDP). The concept of sustainable development was raised by the IUCN and in 1987 by the World Commission on Environment and Development (Brundtland Commission) and gradually accepted globally and at community levels.</p> <p>UNEP was founded and began to play a coordinating and facilitating role through the United Nations and its agencies.</p> <p>Global environmental change was recognized in the early 1970s. International NGOs (such as the Club of Rome) joined in environmental action together with other international, national and local civil society organizations.</p> <p>A number of regional multilateral environmental agreements came into existence, such as the European <i>Convention on Long-range Transboundary Air Pollution</i>, and some protocols on desertification and chemicals.</p>
1990 – 2010	<p>Humans entered the era of globalization, and computer network technology, information technology, biotechnology, genetic engineering technology, and microelectronics integration technology were becoming highly integrated and industrialized.</p> <p>Ministerial Conference on Environment and Development held in 1991 in China adopted and announced the Beijing Declaration. In the same year, the CCICED was established in Beijing.</p> <p>In 1992, the United Nations Conference on Environment and Development convened in Rio de Janeiro, Brazil and adopted two programmatic documents, namely the Rio Declaration and Agenda 21, marking that sustainable development had been generally recognized by countries of varying ideologies about development.</p> <p>2002 UN World Summit on Sustainable Development held in Johannesburg, brought attention to poverty eradication and environment links, and to the creation of the Millennium Development Goals.</p> <p>The systematic and integrated assessment and outlook of national, regional and global environment situation, human development and other issues were conducted by the UNDP, UNEP, WHO, and OECD among others.</p> <p>Following introduction of the world wide web, and various social media, communications related to environment and social issues expanded dramatically.</p> <p>A number of international environmental conventions were made, such as the Vienna Convention, and Montreal Protocol, and some consensus and principles on global environmental governance reached, such as "common but differentiated responsibilities".</p> <p>The 2009 Copenhagen Climate Change Conference discussed the global agreement on greenhouse gas emissions reduction by 2020.</p>
2010s -	<p>The 2012 UN Conference on Sustainable Development which took place in Rio focused on two topics: (1) role of a green economy in sustainable development and poverty eradication; (2) an institutional framework for sustainable development including the creation of Sustainable Development Goals.</p>

The above review suggests that the relationship between societal issues and the environment have become complex over time and the dependency between them increasingly close. Environmental protection measures and policies are increasingly constrained and driven by social issues, and the reverse is also true. The following international statements are examples of the clear recognition of this complexity.

Economic and Social Development Links: We recognize that poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.³⁰

Green Jobs: ...Coordinated global action and investments of about US\$1.8 trillion to achieve a series of sustainable development objectives might lead to 13 million new green jobs per year until 2050. Considering that higher costs in energy supply would replace other jobs through lower consumption, net global job creation would be less, possibly substantially so...Under no conceivable assumptions will green jobs alone be an answer to the global employment challenge to create on the order of 63 million decent new jobs per year until 2050.³¹

Liveable and Sustainable Cities: ...Denotes urban areas managed to provide for people's basic needs and comfort in the short and long term. Some indicators include sound urban planning and design, urban form, the availability of well-maintained public spaces, adequate and widely available services, the preservation of culture and tradition, the promotion of cultural services and infrastructure and cultural industries, clear sky and clean water, and efficient use of natural resources...³²

Lessons from historical experience

This brief review (Box 3-1) reveals an accelerating pace of economic development and social change that can work both for and against environmental protection and social development, as well as the increasing complexity and dependency in this relationship. The timeline also reveals the influence of innovation and of disruptive technologies that can provide new solutions but also create new problems. It also highlights the important roles that cities have played in development, and the great need to make them liveable.

Even this cursory overview of changes that have been important in shaping development in various parts of the world yields significant conclusions that are important for China's future sustainable development planning and decision-making. Several key points are highlighted below.

- Coal-based and other resource-dependent industries have accelerated industrialization and urbanization, but in the process they have stimulated the rise of unsustainable lifestyles and consumption patterns, leading to serious environmental and social risks and challenges.

³⁰ 2002 Johannesburg Statement on Sustainable Development. <http://www.un-documents.net/jburgdec.htm>

³¹ Rio 2012 Issues Briefs *Green Jobs and Social Inclusion*. <http://www.uncsd2012.org/content/documents/224Rio2012%20Issues%20Brief%207%20Green%20jobs%20and%20social%20inclusion.pdf>

³² UNDP China. China National Human Development Report 2013. *Sustainable and Liveable Cities: Toward Ecological Civilization*. http://www.undp.org/content/china/en/home/library/human_development/china-human-development-report-2013/

- For countries well on in the process of industrialization, government actions to address environmental and social issues can be dated back to the late 19th and first three decades of the 20th century. In general, these actions are driven by: the direct impact of industrialization on human health, but also, sometimes by the conservation of ecosystems; and increasing awareness of the relationship between poverty, ill-health and the environment through public and community health campaigns. The U.S and Japan, for example, took many appropriate measures to clean up public waterways, formulated laws on factory management, and carried out public health control measures and social policy initiatives to increase investment in basic public services. However, with a lack of effective policy instruments to address emerging public policy issues, these early actions were quite constrained.
- More complex public policy responses, pollution governance and environmental regulations were rolled out in the second half of the 20th century, with improvements in technology, public awareness of environmental pollution and human health, and the level of attention given to environmental issues. From the 1950s onwards, industrialized countries began the clean-up of contaminated waterways and smog abatement by introducing new environmental laws and organizations, and increasing government spending for environmental protection, (for example, to levels of 1% to 2% of GDP of the United States and Japan). Environmental movements emerged in the late 1960s, registering citizen concern for environmental degradation impacts on human well-being and the economic costs. Environmental issues gradually became the focus of global attention. In 1972, the first United Nations Conference on Human Environment was convened in Stockholm.
- The international background of discussions on the environment has undergone tremendous change as many traditional regional and local environmental issues have evolved into global issues, such as illegal logging, air pollution, climate change, and over-consumption. It is noteworthy that scientific and technological progress, as well as the institutional frameworks, governance mechanisms and social movements for environmental protection in developed countries generally do not mitigate the environmental impact on developing countries, while the discussions on economic development, human welfare and environmental rights become more heated in developing countries.
- Many long-term changes arising from human activities such as emissions, excessive natural resource use, biodiversity and habitat loss are now recognised to be irreversible. Scientific studies of the global impacts of human activity on the environment suggest that some ecological limits are being exceeded. This shifts the calculus of risk, requiring greater emphasis on precaution and preventive measures.
- Actions to protect the environment are intertwined with a variety of political, economic and social issues, such as the liberation movement of workers in Europe in the 1920s, the Western anti-authoritarian sentiments during the Vietnam War in the 1960s and 1970s, the turmoil of the centrally planned economy in Poland in the 1980s,

and the minority (Kurdish) national issues in the large-scale water and mining projects in Turkey during the 1990s.

- Over the past four decades, social organizations and NGOs have played an important role in environmental policies and actions, as well as on other social issues. Civil society activities are now widespread in both rich and poorer nations and in the international community. Transnational networks play significant roles in shaping policy action, and are frequently at the leading edge of social and environmental matters.
- In some developing countries, including China, better-educated, wealthier middle-class citizens with higher environmental awareness have raised new demands from governments. Beyond simple health, livelihoods and short-term environmental issues, their demands incorporate higher aspirations, including participation in decision-making, transparent governance process, information disclosure, and better government attention to environmental issues. In this sense, economic prosperity and rising expectations press for new and better requirements to deal with contaminated products; but also that unsustainable consumption may lead to worsening of environmental problems. Meanwhile, in the context of increasingly quick and transparent information dissemination, the tensions between different interest groups (social organizations, businesses and governments) are more likely to spark public mass incidents.
- Green economic transformation and international partnerships have become a new international trend. In the short run, green economy policies may have similar goals to current policies in promoting economic growth and employment. However, over the longer term, investment should be reallocated to enhance social and environmental benefits. According to UNEP's *Green Economy Report*³³ an annual input of 2% of the world's GDP, i.e., USD 1.3 trillion at the current level, to ten major economic sectors from now to 2050 could be used to catalyze the transition to a low carbon green economy. Under the guidance of green economy policies at national and international levels, priority areas for investment would include agriculture, construction, energy, fisheries, forestry, manufacturing, tourism and transportation. While stimulating growth and creating jobs, an appropriate 'green development' strategy should be designed to reduce pressure on water and other critical resources, and contribute to the eradication of extreme poverty and the mitigation of climate change.
- The current global ecological and environmental protection crisis is resulting in a rethinking of environmental, social and economic policies, in order to identify a new path of green development in the 21st century. Countries in the world recognize that the global ecological environment is also a commons of concern to all people. Increasing population and increasing per capita consumption have shifted the world's attention to climate change, planetary boundary limits, and the Earth's carrying

³³ <http://www.unep.org/greeneconomy/greeneconomyreport/tabid/29846/default.aspx>

capacity.³⁴ Through the UN Earth Summits of the past two decades and current negotiations over a set of Sustainable Development Goals, finding pathways to sustainable development has now become a priority for the international community. However in practice a failure to implement appropriate policies, the dominance of economic growth and disagreement over the allocation of responsibilities make this new path a profound challenge.

3.3. Theory and practice at the intersection of environmental protection and social development

No single theoretical or disciplinary approach or ‘model’ is adequate for illuminating or explaining the complex and multi-dimensional relationships between environmental and social issues, or the conditions under which they lead to conflict. The goal of an ‘integrative’ framework, that appropriately balances these different elements, remains elusive. The taskforce sought to develop a simple framework that might be of help in identifying some of the more important linkages that should be taken into account when balancing environmental protection and social development needs, in order to identify ‘win-win’ solutions and minimise trade-offs and to provide guidance to policy makers. This section identifies some of the theories and practices that form the basis for such a task; a simple framework is proposed in the following section.

Key policy issues and research fields

Any society or organization in the process of transformation will face certain basic contradictions and problems. These include conflicts between economic, environmental and social objectives, over the reallocation of resources, and among vested interests. As a consequence, tensions among different social actors and groups will arise, sometimes exacerbated by long-standing inequities and uncertainties, Public policy and governance mechanisms and institutional arrangements must play a role in the resolution of such conflicts.

Some key areas of interaction between environment and social issues, potentially leading to tension or conflict, are seen in the following fields:

- **Environment and poverty.** Pressures from environmental degradation, water scarcity, and climate change pressures fall on vulnerable groups through a series of mechanisms. Environmental issues could therefore exacerbate social differentiation. Rural poor populations are often regarded as the managers of the natural resources on which they depend, but they may also be responsible for environmental degradation, usually because of the lack of alternative livelihoods. The urban poor population is likely to be subject to hazards from their living and working environment. In addition, poorer people may be more prone to natural disasters due to their geographical location or limited response capacity.

³⁴ Recent reports on these subjects have been produced by the Intergovernmental Panel on Climate Change (IPCC), the Stockholm Resilience Centre, and the WWF.

- **Environment and population.** Important progress has been made in reducing pollution and environmental degradation and improving the efficiency of resource use in large parts of the world. This improvement can be attributed to a significant extent to technological progress. A fear that population pressure would wipe out these gains has been mitigated by a slowdown in the rate of population growth. However, controversy exists over whether the needs of a still growing population can be met within environmental limits through technological advances alone, or whether more profound changes in consumption and lifestyles are required.

Another demographic trend is occurring in many countries, including China, with rapid population aging. This places burdens on government budgets and social policies, with high and rising costs in care. Elderly people are also more vulnerable to environmental problems such as urban air pollution, which implies that environmental-related mortality and morbidity (and associated costs) will rise as populations age. Relatedly, the World Health Organization (WHO), the World Meteorological Organization (WMO) and the Intergovernmental Panel on Climate Change (IPCC) have drawn attention to the multilayer effects of metropolitan agglomeration, population aging, and extreme climate change.

- **Environment, migration and urbanization.** The movement to cities causes many problems both in the countryside and in cities and suburban areas. For the coming 20 to 30 years such migration will be extremely important in countries throughout the world mostly in Asia and Africa.³⁵ However none will match the scale of urbanization in China. Thus urbanization has rightly become a matter of intense focus for China's leadership.³⁶
- **Environment and health.** Major public health and environmental management activities are driven by the relationship between environment and health. Poor environmental conditions undermine the health and the capacity of populations to cope with disasters or shocks; while conversely ill-health increases the vulnerability to other shocks including environmental hazards. Environment-related public infrastructure and services, such as water, sanitation, and solid waste management, have thus been a critical mechanism for improving public health, and are generally provided by states through public health programs.
- **Environment and employment.** Better employment is a critical mechanism for solving livelihood and poverty concerns, but also requires improvements in workplace safety and the work environment. In this respect, the current thrust towards creating "green" jobs and providing skills training for viable and sustainable economic sectors, may contribute to both social and environmental gains. At the same time, improved eco-efficiency and other innovations could help to meet

³⁵ UN HABITAT estimates that world's urban population is likely to increase from current fifty per cent to seventy per cent by 2050 <http://www.unhabitat.org/documents/GRHS09/FS1.pdf> .

³⁶ Premier Li Keqiang has advocated for a new type of urbanization: "people's urbanization" which should be human-centered, ensure the prosperity of the people, and support China's growth. http://www.chinadaily.com.cn/china/2013npc/2013-03/18/content_16314958.htm

environmental protection goals in the workplace in ways that would also improve the competitiveness and profitability of enterprises.

- **Environment and social justice.** In low-income areas, environmental and social tensions mainly relate to the conflicts arising from the use of resources (minerals, land, water) and forests, grasslands and other ecosystems to achieve basic livelihoods and well-being. Generally, poorer populations face higher health risks, and are more susceptible to industrial and workplace-related pollution. However, with respect to the rich and those living in more developed regions, environmental concerns tend to relate more to quality of life, or consumption and behaviour patterns, lifestyle expectations, and information needs. Environmental issues rise to become pressing political issues when the environmental economic costs become apparent (e.g., reduced productivity and rising health costs) or social conflicts and protests break out.
- **Environment and sustainable consumption** has been a major concern since the 1990s but progress on reducing overconsumption in richer countries has been slow. Sustainable consumption involves a complex mix of values and behaviour changes, and depends upon enabling measures such as access to greener consumer products, green market supply chains, and green government and industry procurement practices. Sustainable consumption also needs to take into account growing environmental footprints and sometimes, trade practices. For large, rapidly developing countries such as China, particular dilemmas include gaining access to sufficient resources, while increasing eco-efficiency in their industrial operations and in energy use generally.

Theoretical perspectives and policy linkages

In mainstream neoclassical economics, environmental and social issues have generally been subordinated to economic ones. A widely held but disputed view is that once societies reach a certain level of aggregate affluence they have the financial means, sufficiently mature political structures and institutions, and technological attainment to respond to environmental challenges, as represented in the ‘environmental Kuznets curve’³⁷. While experience does point to more affluent countries effectively tackling problems of pollution, there is no evidence for a deterministic relationship between income and environmental protection. Furthermore, this relationship has been misinterpreted in assuming that growth, by raising incomes and reducing poverty, will lead to better environmental (and social) outcomes; and that market mechanisms are the best facilitators of sustainable growth.

Even within mainstream economics, the limits of markets are acknowledged: markets are subject to imperfections or failures, or simply do not exist. These limits apply to many essentially ‘non-market’ goods and service such as environmental services and common property resources; to externalities and public goods (or ‘bads’) such as air pollution; cases of natural monopoly as in many environmental services such as sewage, drainage,

³⁷ Selden T M, Song D. Environmental quality and development: is there a Kuznets curve for air pollution emissions? *Journal of Environmental Economics and management*, 1994, 27(2): 147pp-162pp.

public sanitation, public transport or energy supply. Cap and trade mechanisms that aim to combine markets with environmental limits have had mixed results. The application of such market mechanisms to environmental services (for example, through pricing policies) also has strong distributional impacts, tending to reinforce existing inequalities in the absence of strong redistributive measures. Often associated with mainstream economic approaches is a corresponding reliance on technological solutions to overcome environmental constraints. Social issues, in such approaches, tend to be relegated to a residual category with policies aimed at providing minimal assistance only to the most vulnerable.

A number of alternative approaches exist, coming from fields such as institutional and ecological economics or from other social sciences, such as political economy and political ecology. These tend to analyse the more complex links between economic, environment and social issues, including the ways in which markets are socially embedded and reflect broader institutional arrangements, social and power relationships, and diverse values and priorities. For example, institutional economists have shed light on collective action problems related to common property resources; political ecologists are also concerned with how the environment affects or constrains development, and the structural (including gendered) inequalities which are central to environmental degradation. Other social science disciplines point to a range of alternative social, ethical, cultural and philosophical perspectives, allowing for different values attached for example to nature and the environment, different perceptions of risk, and alternative interpretations of rationality. They thus provide greater scope for understanding and addressing sources of disagreement and possible conflict; and for developing more integrative frameworks linking social science with natural science and policy.

The main ‘framework’ around which efforts are currently being made to build consensus at a global level, and which informs international policy and practice, is that of ‘sustainable development’. Following the 1987 Brundtland Report, the dominant view of sustainable development is of three inter-related domains or pillars, with presumed equality between them, which can be reconciled to create a ‘triple win’ scenario – delivering gains for individuals and societies within environmental constraints and ensuring adequate environmental resources and services now and in the future. In reality, these domains have not received equal treatment, and the social generally remains weakest, as illustrated by the current emphasis on ‘green economy’ solutions which focus principally on environmental and economic linkages. Multiple critiques have generated on-going efforts to reconceptualise the relationship. One approach is as a nested concept where the economy domain lies within the social domain, and should contribute to social goals, while both need to remain within the (shifting) boundaries of environmental carrying capacity and ecosystem functioning. One representation of this way of thinking can be found in Figure 3.1

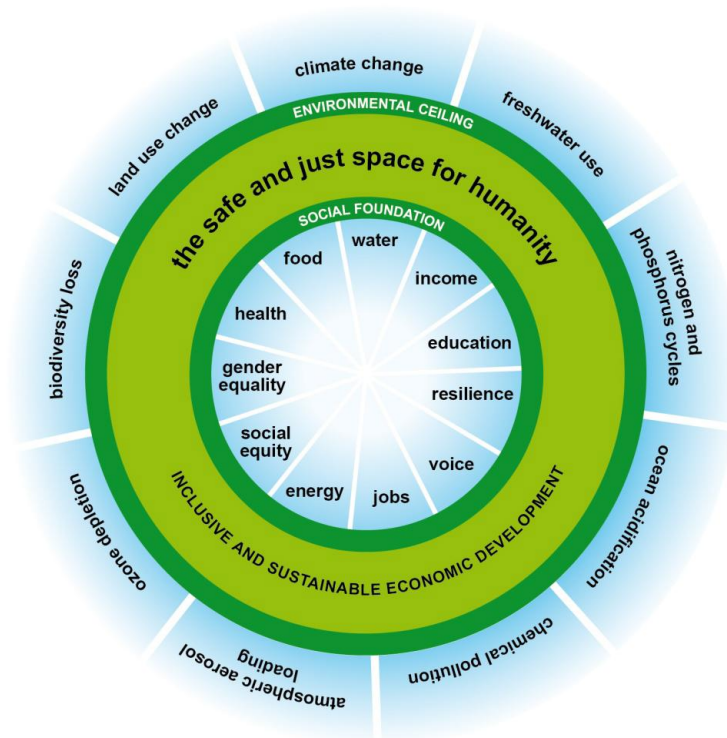


Figure 3.1 The Oxfam ‘doughnut’ showing the balance between planetary boundaries and a social minimum of resource use and environmental impact ³⁸

Despite these theoretical and conceptual debates and challenges, a range of analytic tools and policy innovations have nonetheless been developed which aim to address more systematically the neglected environmental-social linkages. Examples include the following:

- 1) **Capitals:** An approach that has been promoted by World Bank environmental staff examines these relationships through consideration of expanding and contracting stocks of capitals: natural, social, human and built (or manufactured); some also include financial capital.³⁹ This approach recognizes that there can be interplay among these types of capital, for example natural resources can be managed to invest in education and health care, and thus contribute human capital and also, perhaps, to institutions that enhance social capital. The capital approach is useful in defining necessary natural capital in the form of ecological goods and services, essential levels of open green space in cities, and levels of renewable resources to supply the material needs of present and future generations.
- 2) **Risk Assessments, Environmental Impact Assessments (EIA), and Social Impact Assessments (SIA)** provide an important set of tools that help to shape decisions regarding environment and social concerns about projects and policies. However these tools tend to be used separately; most commonly an EIA is

³⁸ <http://www.oxfam.org/sites/www.oxfam.org/files/dp-a-safe-and-just-space-for-humanity-130212-en.pdf>

³⁹ See <http://www.forumforthefuture.org/project/five-capitals/overview>

performed. Joint consideration of EIA and SIA would provide for a more thorough understanding of the relationship between environmental protection and social development and may lead to less conflict over results. Risk assessments allow for a more careful and quantitative assessment of both social and environmental concerns. An objective examination of the nature of risk and probability, and the possible impacts, however, requires that such assessments be carried out in a transparent way by independent agents, and based on good scientific knowledge coupled with follow-up action and monitoring of effectiveness. It also requires openness of information flows and credibility in the information, institutions and processes among the wider public. Access to the decision-making process is also necessary for those affected or likely to be affected by the outcome.

- 3) **Environment and Regional or Urban Development Planning** have long played an important role as an integrative means of addressing a wide variety of social and environmental needs in development planning. The approach should be inclusive and adaptive both from an environmental and social perspective, and this is often a stumbling block. Also, the planning must draw upon a wide range of information with considerable sophistication in the analysis in order to address key concerns such as the creation of green transportation systems, parks and other open spaces, risks related to the siting of natural hazards, and to minimize conflicts of land use that raise environmental and social problems.

Approaches to sustainable development reflect varying perceptions, assumptions or preferences, and fundamental values or conventional wisdom. Among these are views about the relative roles of the market and the state; the relative weight given to efficiency versus equity; methods for the evaluation of various material and non-material resources (such as environmental or cultural resources); the balance sought between the well-being of current and future generations; and alternative choices between pathways towards 'weak sustainability' through incremental reform of current practices or the more transformative action needed for 'strong sustainability'. As far as China is concerned, the current focus on Ecological Civilization suggests a shift from the dominant focus on income and GDP growth to give more attention to non-material and ecological goods and services. On a worldwide scale, similar changes are observed in the discussions about the green economy, especially since the United Nations Conference on Sustainable Development in 2012.

Policy frameworks and priorities also change over time and space. From a temporal point of view, the focus of work changes, for example in the case of food products from the earlier technical approach (as in the green revolution) of the 1960s to 1980s; the community-based resource management approach from the 1970s to 1990s; and then to the more recent emphasis on genetically modified crops and the green economy; and now further to a blend of all of these that takes into account sophisticated environmental protection and food safety factors. From a spatial point of view, regional and global differences can also be observed, further complicating responses given the difficulty of determining environment and social responsibilities, and distributing costs and benefits, in different places or at different levels. An added layer of complexity exists for cross-

border issues, which may involve local boundaries or international borders, or small and isolated communities.

Current Opportunities

In spite of numerous challenges, innovative environmental and social policies are emerging to address systematically a range of interrelated environmental and social development challenges. Such policies have the potential of improving social outcomes, reducing risk and enhancing social justice while achieving environmental goals more effectively. For example, efforts could include the incorporation of environmental and social objectives jointly into long-term development planning and impact assessments, introduction of environmentally-targeted social policies as is currently done for some eco-compensation efforts for watershed protection, as well as the formulation of policies to promote education and training and green jobs. There is also a clear need to enhance environmental information release to the public beyond steps already taken, and to foster the participation of the public in assessments and improve oversight mechanisms.

Increasingly, decision-makers around the world are recognizing that their understanding of the importance of the environment and societal relationships, and the potential contribution of social policies to environmental goals into policies and practice is limited and needs to be transformed. At present, the issues of most concern include: the impact of environmental change or degradation on the livelihoods and health of populations, communities and social groups; the impact of human behaviour and consumption on the environment; the impact of such tertiary factors as economic growth, various inequities, and resource allocation on environmental and social outputs; and governance and participation, including the establishment of mechanisms to address tensions and manage potential or actual conflicts. In fact, understanding the social context helps to identify and analyze key factors in the environmental and social interaction, such as the role of different social actors and the formation of values, social equity and distribution, and social and public policies.

Among these, the potential use of social policies in achieving environmental objectives has not been fully explored, and in fact, may offer significant opportunities. Social policy encompasses a range of public actions designed to manage livelihood risks, protect people against contingencies (such as ill-health and loss of income) and invest in their capacities to contribute productively to the economy. It is also important in awareness-raising and public participation. Social policies thus have a significant role in the transformations required for sustainable development: by reducing well-being deficits associated with unequal resource access; incorporating environmental risks which disproportionately affect the poor; facilitating 'green' employment and skill transitions; creating incentives to change the behaviour of consumers; and fostering social inclusion, cooperation and trust in institutions, which can in turn reduce social tensions and threats of conflict.

A logical further step in the extension of social policies is thus to incorporate environmental objectives into the existing social policy system. Social policies can be designed to extend beyond the scope of protection and compensation mechanisms, to

support a structural change towards sustainability of lifestyles, consumption and behaviour of individuals, businesses and governmental bodies, while ensuring the fairness of the results. These mechanisms may include the collective supply of social and environmental public goods, housing, energy and infrastructure investment for the poor, and low-carbon consumption incentives. In addition, the mechanisms should also cover the design and implementation process of public policies, the right of civil and social institutions to influence decisions, protection of the rights and interests of vulnerable groups, or relevant systems to supervise business and government and improve their accountability.

All change processes are inevitably accompanied by new problems, such as unequal benefits, new resource conflicts and social unrest, and generally there are no easy solutions. Conflicts between the environment and development will not resolve themselves, or be resolved strictly through technical means and the market. On the contrary, the market tends to exacerbate the existing unfair distribution and power relations, while technological solutions tend to be insensitive to social and distributional issues. International practice and theories also clearly tell us that the social conflicts resulting from increasing environmental awareness and concerns over impacts will not melt away automatically, especially as resource use intensifies, and urbanisation proceeds. If environmental protection improvements do not keep pace, public concern and pressure for solutions will become a greater political as well as social problem.

In other words, to solve the social problems created in a changing environment, concerted and coordinated actions by governments are needed to reduce the negative environmental impact on some groups and to resolve conflicts. Such approaches need to be supplemented by appropriate governance, social management and participatory mechanisms. In addition, strong actions should cover polluting enterprises and local governments. The implication for China is that the government at all levels needs to be more innovative in the management of problems, as well as providing a wider space for civil society groups and citizen action, and clarifying environmental and social rights and responsibilities.

3.4. Explorations for a suitable framework linking environmental improvement to societal action

An important challenge is to shift the focus from sector-specific theoretical perspectives and practices towards creation of an integrated policy framework. At the moment, countries around the world are making efforts to reach a consensus on an international set of policies and practices that provides a more robust framework for sustainable development.⁴⁰ However, such a framework will need to be grounded in the development of mechanisms that are relevant to, and implementable in, local situations in countries as complex as China. The contribution of this Task Force toward such an effort will indeed be modest due to limitations of time, and to some extent differing views among members.

⁴⁰ See the efforts for a post-2015 set of global sustainable development goals. <http://sustainabledevelopment.un.org/index.php?menu=1300> ; and also efforts to establish green economy and green growth experience throughout the world (UNEP and OECD among others).

The Task Force examined several simple word models to demonstrate the links and feedback loops between four key factors: human society, the natural (and in some cases also the built) environment, behaviour towards the environment, and environmental governance. These four factors are interactive.

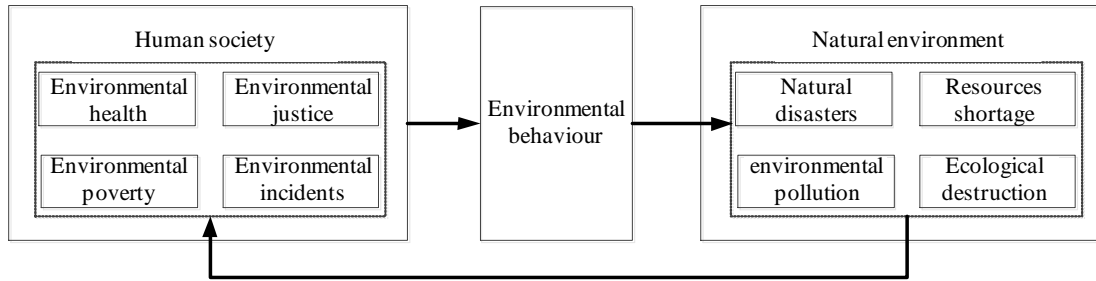


Figure 3-1. Model considering human behaviour towards the environment and the role of environmental governance

The model in Figure 3-2 is based on the assumption that appropriate behaviour in production and living is conducive to the quality of the natural environment, thus contributing to the solution of environmental problems and social progress, and thereby the coordinated environmental protection and social development. What is described here is an ideal, and points to the need for adjustment of uncivilized or irrational environmental behaviour—whether on the part of government, businesses and individuals. In reality, however, tensions between environment and society may be addressed at a local level, but remain problematic overall.

Figure 3-3 reveals in somewhat more detail what must be considered in both responding to environmental problems, and in satisfying society that problems are being properly addressed.

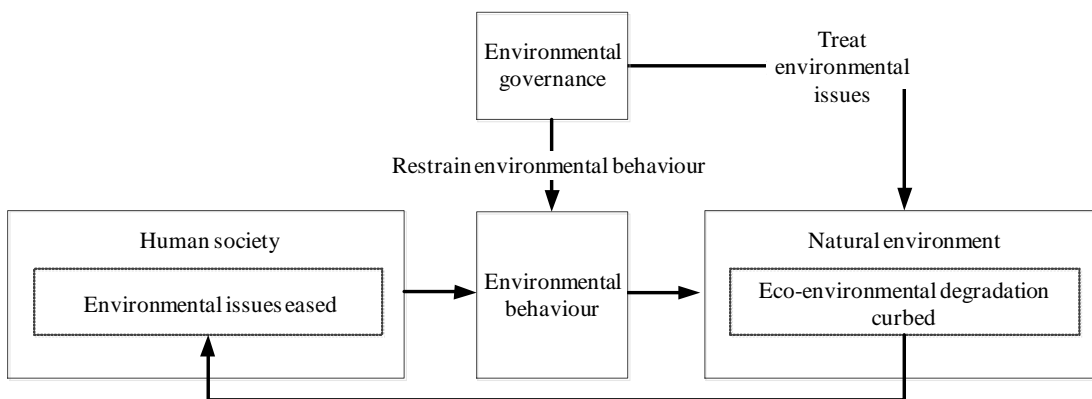


Figure 3-2. Theoretical model considering environmental behavioural variables

In Figure 3-4 a preliminary effort has been made by the Chinese members of the Task Force to put forward a conceptual framework suited to Chinese circumstances – one that will ensure progress towards achieving an Ecological Civilization. It incorporates concern for maintaining social stability while seeking environmental protection improvements, and for promoting social harmony and acting on environmental values. It assumes continued economic development and innovation in institutional, management and technological aspects, all related to the Scientific Outlook for Development. This model is likely to be quite different from models based on a western democratic society, and yet it will need to be robust in terms of improving both environmental protection and the social condition.

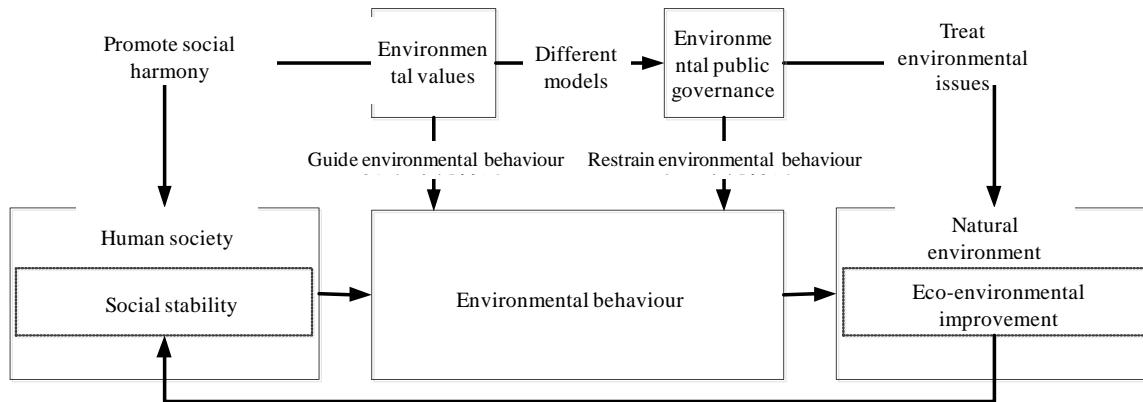


Figure 3-4 Model considering environmental behaviour, public environmental governance and environmental values

Importantly, its application to China will also have to consider some important dynamics over time that affects both environmental and social development. For example, the demographic changes already in motion, the growing importance of domestic consumption and the sheer pace of China’s current changes. These are not shown in the simple version depicted below.

4. A FRAMEWORK FOR POLICY AND ACTION

To achieve a long-term vision or goal of Ecological Civilization the Task Force puts forward for consideration a framework for policy and action that integrates social development and environmental protection. The outcome should be improved environmental and social harmony, and overall progress towards a “Beautiful China”

4.1. Basic principles

The Task Force has identified five principles that can usefully guide the formulation of policies for linking environmental protection and social development.

- **Multi-stakeholder participation.** Attaining sustainable development is a shared responsibility. Experience has shown that the commitment of the Chinese government to economic development over the last three decades has generated many environmental and social problems and incidents have arisen, some of which undermine the credibility of the Government. This can be attributed, in part, to inadequate opportunities or mechanisms for all actors and social groups to provide input into policy. It is therefore necessary to clarify the roles and responsibilities of different actors. Where necessary, it may be important to transform the functions of the Government, so as to more appropriately drive coordinated economic, social and environmental progress. Mechanisms to enable and recognize the positive contributions of businesses/corporations can also be created.
- **Coherence between long- and short-term visions and targets.** The Task Force emphasizes that environmental protection and social development require immediate practical actions, but also a long-term vision and plan to safeguard future generations and build a “Beautiful China”. Thus, the process of policy formulation should articulate clearly both a long-term vision and develop short-term targets and objectives to make progress toward reaching that vision. Achieving an Ecological Civilization is a long-term vision. To this end, the Task Force suggests setting clear objectives and tasks for China’s future development process associated with environmental protection and social development over short, medium and long-term timeframes.
- **Policy coherence.** Policies for economic, environmental and social development should be interdependent and mutually reinforcing, rather than conflicting or contradictory. For a country moving towards sustainable development, it is necessary to integrate and coordinate the development and implementation of economic, social and environmental policy objectives, even while recognizing the need for parallel and distinct means of accountability.
- **A strong legal foundation.** The Task Force highlights the importance of laws and regulations, designed to support the objectives and needs of economic, social and environmental development rather than being based on the preferences and propositions of vested interest groups, enterprises or individuals. This is an

important guarantee for long-term social stability. It is particularly important to protect and safeguard the provision of public goods and services and to ensure that any framework considers the legal guarantees relative to other mechanisms such as market instruments. Laws and regulation should enable public access to information, and create a legal framework for robust and useful mechanisms for public supervision of development policies.

- **Equity and justice.** Environmental resources, rights and responsibilities should be distributed equitably. Access to a clean environment and an acceptable quality of life should be available to all. In order to fulfil their obligations to achieving environmental protection and social development individuals, organizations and enterprises must have the capacity, knowledge and means to behave responsibly. In formulating relevant policies in matters such as green procurement or sustainable consumption, not only equitable distribution of rights and interests among different groups should be secured, but also their obligations to participate in environmental protection and social development should be promoted.

4.2 Vision 2050/Action 2020

Adopting a Vision 2050/Action 2020 approach will require immediate actions in order to bring the 2030 and even the 2050 Visions within reach. That is due to the need to consider the time required to change and/or build infrastructure, spatial patterns and financial obligations.^{41,42,43} Through backcasting from a vision, it is clear that some decisions needed to be taken soon, especially for the 13th FYP, in order to ensure the chances of achieving the vision. Some of these actions have been identified and are recommended in Chapter 5. Such backcasting is also important because it will give direction to a further program of targeted policy-oriented studies following this initial study.

To achieve policy coherence over various timeframes, a number of goals and objectives could be envisioned.

- **By 2015, the ecological, environmental and social targets in the 12th FYP should have been achieved.** People's lives will continue to improve and the main medium- and longer-term goals for environmental protection, production patterns and lifestyles of quality will take initial shape. A more favourable and robust legal system for the coordination of environmental and social development will be established, while the management system and policy system will become better coordinated.

⁴¹ WBCSD (2010) *Vision 2050. The new agenda for business*. World Business Council for Sustainable Development, Geneva. English edition. Chinese edition available.

⁴² PBL (2009) *Getting into the Right Lane for 2050. A primer for EU debate*. PBL Netherlands Environment Assessment Agency and Stockholm Resilience Centre. PBL, Bilthoven, The Netherlands

⁴³ TIAS (2010). *A comparative study of Visioning-Backcasting Initiatives*. The Integrated Assessment Society. <http://www.tias.uni-osnabrueck.de/backcasting/>

- **By 2020, the aim is to have built a moderately prosperous *Xiaokang society*.** Better spatial land patterns and environmental functional zoning will be in place. A resource-conserving and environment-friendly economic structure and system will basically have been built, although still in need of much more attention. Levels of efficiency of resource utilization should be closer to the most advanced levels in the world, while the energy consumption per unit of GDP will have been reduced substantially. As the total discharge of major pollutants decreases drastically, overall environmental quality will improve significantly. The concept of Ecological Civilization will be firmly rooted in the whole of society. Specific improvements will also have been made in the legal system, policy system, social risk prevention and control system, and public environmental management and service system.
- **By 2030, environmental pollution problems will be much more fully resolved.** Upon meeting environmental quality objectives fully, environmental public health needs will be met. Ecosystems will be stable and healthy with robust service functions and improved biodiversity protection. The spatial land pattern and environmental function zoning will be fully established, while the economic and industrial structure will be able to meet the requirements of an Ecological Civilization. Resource efficiency likely will reach the world's most advanced level. With the further penetration of the concept of Ecological Civilization, the values of environmental protection and low-carbon and eco-friendly production and consumption patterns and lifestyles become dominant. A scientifically-based and sound public environmental governance system will have been put in place. A green, prosperous, harmonious society is at the inception, and a "Beautiful China" is being created. China will be widely regarded as having a highly functional Green Economy and a Green Development governance system fully in place.
- **By 2050, the coordination between environmental protection and economic and social development will be the norm, and much more reasonable levels of harmony between people and nature will be realized.** A "Beautiful China" with full ecological civilization will have been born. Most people will be housed in very liveable cities, but there will also be robust, ecologically-sound practices throughout the countryside and in China's ocean and coastal areas. Indeed, most ecologically degraded landscapes will be restored. Climate change adaptation and mitigation measures will be helping to lessen the impacts of climate change. Energy use patterns will be radically different from today, with much less dependence on fossil fuels and with eco-efficient industry, transportation systems and practices.

Previous successful studies have shown that there is greater likelihood of success when any analysis starts with the vision, then reasons back. This allows the identification of the critical steps that must be taken in time in order to keep the vision within reach. The longevity of infrastructure and capital stock is a key factor as illustrated by the urbanization cases investigated by the Task Force (Xixian New Area in China and

Randstad area in The Netherlands).⁴⁴

4.3 Policy fields and actions

In response to current and future challenges, finding a symbiotic balance between social development and environmental policies will be essential. Finding those synergies will not happen by accident, thus an organized and disciplined set of actions and actors are described below.

All actions can be seen through the perspective of three functions: developing an *awareness* of appropriate values and norms in society, supporting appropriate *behaviour* of citizens, enterprises and other social organizations, and developing coordinated *governance systems*.

In terms of **awareness**, efforts should be made to establish values and norms compatible with an Ecological Civilization. By means of a combination of laws and regulations, dissemination and education, policies and measures, environmental rights should be identified explicitly as a right of citizens; and environmental protection and social development presented as a shared responsibility and a basic obligation of the whole society.

In terms of **environmental behaviour**, policy actions should be directed towards enabling and constraining the behaviour of public, government officials, enterprises and other social organizations. Incentive policies should be introduced to encourage public participation in environmental protection, and dissemination of information and education should cultivate environment-friendly habits and conduct and build sustainable consumption patterns throughout the whole society. While environmental laws, regulations and standards are to be further improved and implemented, economic policies and incentives should be put in place to cultivate among enterprises better incorporation of the concept of corporate social and environmental responsibility. With the development of guiding policies, the government should inclusively support public environmental organizations, industry associations and communities, and motivate a new pattern of broad participation in environmental protection and social development.

Various key roles are shown below in Figure 4-1.

In terms of the system of **public governance**, efforts should be made to improve legislation, social and environmental risk management, and the distribution and coverage of public services. In further developing the legal system, it is necessary to protect by legislation the public's right to know about, participate in and supervise or monitor environmental protection activities. To this end, improvement is needed with respect to information disclosure, environmental hearings, environmental public interest litigation, and environmental damage compensation systems. Where appropriate laws and regulations exist, attention should now turn to effective implementation. As already

⁴⁴ See CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. 266pp-272pp. In Chinese.

mentioned, environmental protection should be given equal importance alongside economic and social development.

<p>Government</p> <p>Decision-makers from different policy fields and sectors together develop coordinated and flexible policies, so that social, economic and environmental policies operate in parallel, without conflicts.</p>	<p>Business</p> <p>Corporate environmental behavior should meet the requirements of laws and regulations.</p> <p>Businesses shall be active in the decision-making process for environmental and social issues.</p>	<p>Individuals and communities</p> <p>Actively adopt sustainable lifestyles</p> <p>Participate in environmental and social activities</p> <p>Avoid social conflicts caused by individuals or groups.</p>	<p>Social organizations</p> <p>Provide support for individuals and businesses to participate in environmental activities and safeguard environmental benefits</p> <p>Participate in government policy formulation and decision-making</p> <p>As a third party, monitor the execution of environmental and social regulations and policies</p>
--	--	---	--

Figure 4-1. Actions of the various players in governance

Efforts are needed to accelerate the formulation of social policies for environmental protection, and to establish a sound assessment mechanism for major social policies. Consideration should be given to creating an independent mechanism for environmental and social policy evaluation that could be related to environmental impact assessment as is done in some other countries. In respect of risk control, it is important to set up a social risk assessment mechanism for major environmental projects and improve public communication and appeal mechanisms. An improved emergency response mechanism should be put in place to cope with sudden environmental accidents. Communication, dialogue, and consultation between the government, businesses and the public should take place on a regular basis. With respect to public services, it is important to build trust and social capital by continuing to improve government openness and transparency.

The following framework (Figure 4-2) summarizes the most important coordinated actions to be carried out in eight policy fields over the next 35 years by various actors in order to achieve a vision of Ecological Civilization and a Beautiful China with harmony between humans and nature.

Stage One begins now and continues to the end of the 12th five-year plan. The focus during this period will be on building the appropriate infrastructure and support systems. Its main task will be to conduct thorough investigations of major environmental and social problems and policies, to establish a sound legal system, and to perform trial environmental and social policies in areas and fields where the conditions are right. Stage Two which is projected to coincide with the 13th five-year plan period until 2020 will focus on institutional improvement. The main task for this stage is to complete the development of parallel yet coordinated economic, social and environmental goals in a

manner that ensures strength in all three elements. Stage Three will occur during the decade ending in 2030. This stage is committed to the completion of medium-term targets, that is, comprehensively solving environmental pollution problems, taking into account the contributions of appropriate social development so that environmental quality basically satisfies the health demands of the public, with stable and healthy ecosystems and restored ecosystem service functions. Stage Four, planned to conclude in 2050 should see the attainment of China’s long-term goals, namely, securing the balance between environmental protection and economic and social development, establishing harmony between people and nature so as to realize an Ecological Civilization and a “Beautiful China”.

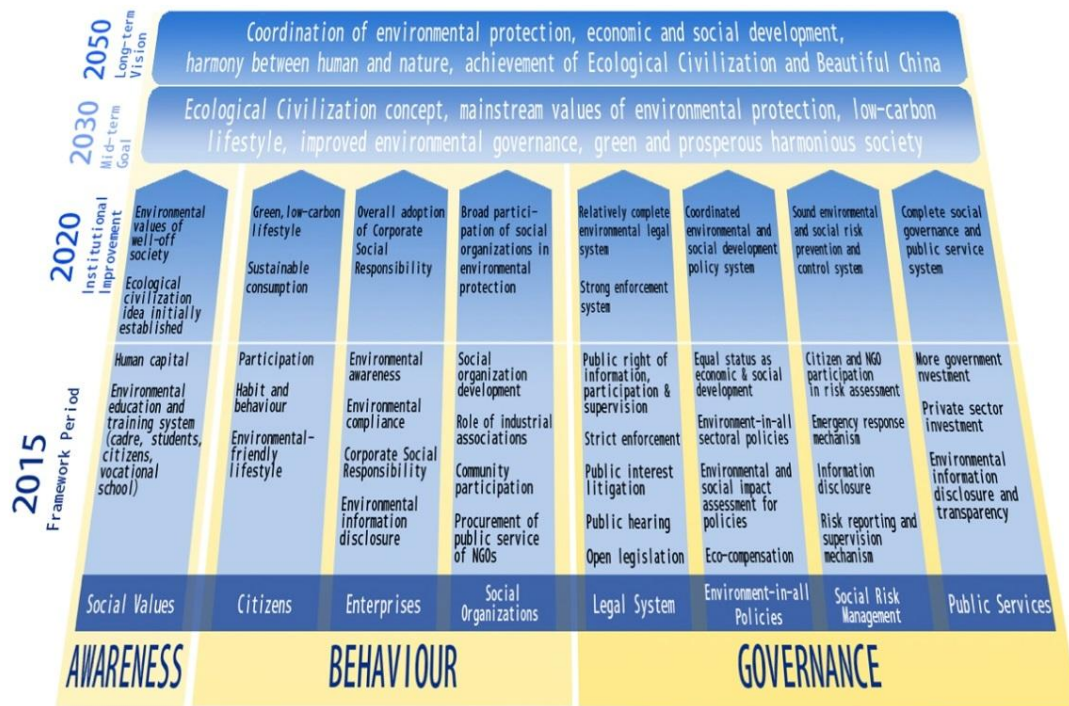


Figure 4-2. Policy and action framework

5. RECOMMENDATIONS AND CONCLUSION

5.1. Introduction

Developing an Ecological Civilization is an ambitious vision. Central to achieving it is the ability to strike a good balance among the objectives of economic growth, environmental protection and social development through coherent, coordinated and consistent policies. Thus far, in China and elsewhere, relatively little focus has been put specifically on the relationship between environmental protection and social development. The Vision 2050/Action 2020 framework presented in Chapter 4 is one way of addressing this deficiency. In particular, the framework would help to connect the long-term vision of an Ecological Civilization and a Beautiful China by the middle of the 21st Century with policy decisions and actions that are necessary in the near term.

Considering these near term issues, it was apparent to the Task Force that for some of these there is already sufficient evidence to recommend immediate action. These recommendations are described only in intent – the actual details of design and implementation were not the mandate of the Task Force. The Task Force underlines that any short-term initiatives should be considered part of a strategic shift and so they should be consistent with the overall vision. For example, environmental protection initiatives should carefully consider social impacts and any social development initiatives should identify and address their impact on the environment.

The Task Force also recognizes that there are relevant policies and practices that have already been proposed, for example in earlier CCICED reports. Not all are repeated here. However a number are included since they deserve greater attention and strengthened implementation.

5.2. Recommendations

Recommendation 1. Elaborate a 2050 vision of coordinated environment and development and develop a phased plan of policy and actions that will be essential in achieving that vision. (Vision 2050/Action 2020)

The overarching recommendation of the Task Force is to further develop a Vision 2050/Action 2020 framework that will guide actions over the short, medium and longer time frame in a manner that will genuinely coordinate the social, economic and environmental aspects of development in China. See Figure 4.3.

In particular, the proposed framework will be a tool to identify, among the many important challenges and opportunities, those near term policy steps that are decisive in determining whether the long-term vision can be reached (*'back casting'*). The Task Force recommends that the contents of this framework will be elaborated based on specific follow-up studies in a Chinese context. The next recommendations provide an initial list of issues to be addressed in these studies.

In addition to charting key steps over time, the proposed framework serves to highlight the various societal actors that need to be involved – not only the government. We have

expressed this by clustering the following recommendations as addressing three dimensions. The first dimension is *awareness* aimed at establishing and enhancing norms associated with environmental protection and social development. The second dimension is *behaviours* – in particular, the behaviour of the general public, businesses and social organizations. The third dimension is *public governance*. See Chapter 4 for a graphical representation of the framework and a brief discussion of these three dimensions.

Recommendation 2. Promote social norms and values related to ecological civilization (*'Awareness' dimension*)

The development of social policy begins with and builds on values and social norms. The Task Force acknowledges that social values and norms related to Ecological Civilization in China are the foundation for the development of future policies and practices in environmental protection and social development. Therefore, it should be a priority to advance the understanding, early on, that a sound environment is basic to the welfare of citizens. To that end, it is important to emphasize both the environmental rights and basic obligations of citizens. The government's role in transparently producing and disseminating information is particularly important. Specific actions could include:

Developing education and training plans such as: (i) Improving cadre training by developing or appropriately modernizing an integrated environmental-social curricula for the party school system, colleges of administration and other training centres for cadres at all levels of government. (ii) Developing an educational initiative through China's vocational school system to ensure that groups that are socially disadvantaged such as the next wave of rural-urban migrants have the workplace skills to contribute to a sustainable modern urban environment. (iii) Investing in the future generation by incorporating basic environmental knowledge and sustainable development approaches within the school system and at universities.

Supporting conceptual and policy-oriented research on the development and implementation of the "five-in-one" system (economic, political, cultural, and social progress, and ecological civilization) emphasizing environmental values that are consistent with Chinese traditional moral and cultural philosophy.

Promoting values related to ecological civilization through extensive use of news media, internet and other communication channels, recognition of positive activities on the part of individuals and organizations and the promotion of distinctive literary and artistic works and publications.

Assessing and communicating actively the potential social risks of environment developments. The Task Force recommends that the Government establish a trustworthy mechanism to implement a comprehensive approach to ex ante environmental and social risk assessment based on principles of openness and transparency and meaningful public access. In other words, the approach should go beyond mere disclosure.

Recommendation 3. Encourage all in society to exercise their appropriate roles (*'Behaviour' dimension*)

To address increasingly diverse and pluralistic social demands, all individuals and organizations in society should be encouraged to play their respective and complementary roles in a positive and cooperative interaction with government and businesses. Achieving the vision of simultaneous social development and environmental protection in China can be greatly accelerated by connecting to the energy and flexibility of players other than the government. Specific actions could include:

Advocating healthy and sustainable life styles. It will be necessary to foster lifestyles that are healthy, resource-conscious and that consider quality rather than quantity in consumption and personal mobility. Advocacy and education shall be used to promote a sustainable lifestyle and behaviours, including through encouraging leaders of social organizations, entrepreneurs and other public figures to play a demonstration role by pursuing a healthy and sustainable lifestyle.

Public participation. Public participation in decisions that influence daily life, health, safety and enjoyment is important for coordinating environmental protection and social development. This engagement will be contingent upon the protection and enhancement of the public's right to know through disclosure of environmental information; the affirmation of environmental rights and interests of the public through the legal system; and the encouragement of citizen participation in development and environmental planning, as mentioned in Recommendation 3. China's large urbanization process offers a unique opportunity to make progress in this respect, for example through experiments with innovative, participatory planning.

Promoting acceptance by enterprises of their environmental and social responsibilities. The responsibility of enterprises to conserve resources in a socially and environmentally responsible manner should be encouraged, in a manner that mobilizes their creativity and innovation potential. This has the potential to dramatically reduce pollution and conserve resources, including energy, while strategically moving to longer-term business models. Obviously, this is contingent upon important improvements outside the scope of this Task Force, such as the establishment of sound economic policies putting in place true incentives for enterprises to move beyond environmental compliance to innovation. The Task Force also recommends development of an improved system of tracking corporate environmental impact assessments through independent oversight and public participation.⁴⁵ Similarly it is recommended to promote the active use by the financial industry of environmental and social norms for evaluating loans, insurance and the potential worth of enterprises. These norms should include enhancement of environmental and social standards for access to formal qualifications of listed companies in China.

Supporting the further development of environmental and social organizations. Social organizations should be enabled to contribute by serving as independent assessors and

⁴⁵ Insights discussed during the study trip of the Task Force to Europe. See Schijf, B. and Boven, G. van, in: Strategic Environment Assessment in Development Practice. A Review of Recent Practice. 2012. OECD/DAC report 9789264166745 (PDF) ; 9789264166738 (print) DOI :10.1787/9789264166745-en. OECD, Paris. Also in "Views and Experiences nr 11, 2012, Netherlands Commission for Environmental Assessment", downloadable from <http://www.eia.nl/en/publications>.

supervisors of development activities, protecting citizens' rights, improving environmental and social awareness, conducting surveys, contributing to community activities, protecting nature and ecosystem services, and offering advice and suggestions for policy formulation. This would extend to a much wider range of social and business organizations than reflected in the current official registration in China. For example, trade associations have a potential role in environmental protection. It would be appropriate to consider policy change around registration of social organizations such as to easing restrictions on their ability to undertake activities across the environmental and social domains. Obviously, promoting the responsible partnership of non-profit environmental organizations is conditional upon conditions being created to overcome difficulties in registration, funds and social participation. Specific actions could include: (i) actively encouraging and guiding urban and rural communities to participate in environmental protection, for example, playing a role in publicity and mobilization, (ii) encouraging and enabling social organizations to actively participate in environmental impact assessment and social risk assessments of major projects that promote fair, impartial and transparent proposals as input to project planning, (iii) including environmental organizations in the bidding on government purchases of public services in order to establish a closer relationship between governments and social organizations, make up for the shortage of government's provisions of public services and enable social organizations to provide some public services.

Recommendation 4. Strengthen public governance ('Governance' dimension)

At the heart of realizing the vision of ecological civilization will be the development of a coherent and comprehensive set of legislative and policy actions by government, such as:

Establishing a highly functional environmental policy system. The Task Force recommends that the Chinese government sets out a strategy of simultaneously strengthening environment policy per se and also strengthening policy coherence on matters of environment and social development through the full breadth of its policies and institutions. International experiences from the environment and public health domains strongly suggest that a 'whole of government' approach is required to pursue these societal objectives with sufficient political power and at a credible scale.⁴⁶ At the same time, in view of the complex ecological and environmental problems in China, it is necessary to build a strong comprehensive policy field of environmental protection on an equal footing with economic and social policies. Specific actions could include:

⁴⁶ In particular, the World Health Organization, on the basis of worldwide examples, points out that strong support from the top policy level is always required to achieve effective coordination. It also suggests, by implication, that the period of increasing concern about China's environment and environment-related unrest provides a not-to-be-missed opportunity to embark on such a policy strategy. Obviously, the accountability that would be demonstrated by the Premier should find its way to other layers of government as well, but the Task Force focuses at the Premier to provide the strongest possible example. See (i) [report of study trip](#) Geneva and The Netherlands to be included in Long Report of the Task Force; (ii) Leppo, K. et al. eds. (2013) *Health in All Policies. Seizing opportunities, implementing policies.* Helsinki 2013. Publications of the Ministry of Social Affairs and Health 2013:9. ISBN 978-952-00-3406-1 (printed) ISBN 978-952-00-3407-8 (online publication) URN <http://urn.fi/URN:ISBN:978-952-00-3406-1>

- 1) From the 13th FYP, the five-year plan of the Chinese government should be listed as the National Economic, Social and Environmental Development Plan, so that environmental policy and the associated planning will truly become a significant item in parallel with economic and social policies. Meanwhile, the National Economic and Social Development Report submitted by the Chinese governments at the National People's Congress and the Chinese Political Consultative Conference (NPC & CPPCC)) would then also have been changed to the National Economic, Social and Environmental Development Report accordingly.
- 2) To support this point, the Government, represented by the Premier in order to underline the whole-of-government approach, should submit to the National People's Congress an annual report with equal emphasis on the economy, society and environment. The report should list the achievements made by the Government with respect to economic, social development and environmental protection for all Chinese citizens in three clear and separate sections. In this way the Government will demonstrate responsibility for environmental protection in China, and clarify the relationship between environmental protection and social development through the report. To be a fair and credible assessment, the report should cover achievements in the past year based on objectives that were set, using quantitative and qualitative indicators and measurements of success, as well as an assessment of the future significance of current developments and actions.
- 3) An environmental and social assessment mechanism should be established for major policies. An EIA traceability and accountability mechanism should be put in place to force EIA units and individuals to take responsibility for the assessments, and increase penalties for violations. Thus, *ex ante* policy impact assessments in the style of the European Commission would be a key instrument in pursuing policy coherence.
- 4) The environmental performance evaluation and government performance evaluation system should be improved, encouraging local governments to increase investments in environmental protection, by setting up a scientific evaluation system placing greater weight on environmental public services provided. The weight and therefore number of ecological environment and social development indicators should be gradually increased.

Recommendation 5. *Establishing a sound mechanism to assess, communicate, and mitigate the social risks of environment protection*

The Task Force recommends that the Government put in place a comprehensive approach to environmental and social risk assessment. To be convincing, the approach should be based on principles of openness and transparency and meaningful public access. Fundamental to achieving an effective and trusted risk management approach would be the systematization of information. Specific actions could include:

- 1) Establishment of a “pre-approval” system for major projects with environmental and social implications as well as policies and reforms involving public

environmental interests to consider procedure legality, policy reasonability, program feasibility, and appeal rights.

- 2) To win the understanding, trust and support of the public, solicitation and incorporation of their opinion should be undertaken in advance of decisions on major projects through seminars, public hearings and public notices. In particular National People's Congress and Chinese People's Political Consultative Conference industry associations, and community or social organization representatives should be invited to review the social risk assessment reports.
- 3) Cadres who fail to strictly follow the assessment process should be seriously punished in cases of "evaluation failure" and policymakers who do not attach importance to risk assessment should be held responsible for this failure.
- 4) Building a more robust environmental emergency response mechanism should be given priority. Complete and operational contingency plans should be developed that clarify the conditions and timing when the response mechanism should be launched, as well as the personnel and equipment needed.
- 5) The provision of timely, and accurate information during environmental incidents is important, to avoid misleading and untrue reports, speculations and rumours. Full advantage should also be taken of new media platforms such as micro blogging to ensure more widespread and accurate knowledge of such incidents.

Recommendation 6. *Improving the level of public environmental services*

Public services regarding the environment are prioritized here as an opportunity to demonstrate that the government can meet the objectives of improving and protecting the environment and meeting the expectations of citizens regarding their health and well-being. Policy coherence in delivering environment-related public services is particularly important during a time of rapid urbanization and significant change at the urban-rural interface that requires infrastructure planning and decision.⁴⁷ Basic public service is provided by the Government to meet the essential needs of all citizens for survival and development. Basic human needs include clean water, unpolluted air, and productive land. In addition to basic services, increasing attention is required for intangible services like institutional arrangements, standards and laws.⁴⁸ Actions could include:

- 1) Setting up appropriate coordination mechanisms to ensure access throughout China to public services. Development of appropriate scope and standards for basic environmental public services, such as placement of sewage treatment and garbage disposal facilities, clean water, clean air and tranquillity, environmental

⁴⁷ See CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. 127pp-134pp, 218pp-243pp. In Chinese.

⁴⁸ World Bank (2012) *China 2030. Building a Modern, Harmonious, and Creative High-Income Society*. Conference edition. World Bank and Development Research Center of the State Council, the People's Republic of China. World Bank, Washington DC.

emergency response mechanisms, environmental information services, the public right to know and to supervise environmental actions.

- 2) Consideration of outsourcing certain public services. For example, social organizations can be mobilized for environmental monitoring and assessment and carry out “advocacy work” for improving environmental awareness
- 3) Gradually improving the proportion of spending on basic public environmental services. Measures should be taken to encourage multi-sourced financial mechanisms, better possibilities for cross-regional transfer, and better incentives for private investment. In this way, local governments can obtain adequate funding for their social and environmental policies in line with differing regional needs.
- 4) The formation of a more complete ecological compensation mechanism for different functional zones should be pursued, so that ecological environmental protection can increase local revenues and benefit the local people living in ecologically significant areas.

5.3. Final considerations

The work of this Task Force was preliminary. Obviously elaborating the proposed framework will be a major undertaking. The Task Force recommends that several strategic studies on complex priority issues also be commissioned. These studies would involve more comprehensive analysis of previous international work and engagement with various societal actors. Three priority topics are:

Lifestyle and behaviour. A strategic study might be commissioned to explore the best alliances and an efficient package of government measures that would promote the shifts in lifestyle and behaviour that are necessary to achieve environmentally and socially sustainable outcomes. Experience abroad suggests that this is a long-term goal which is difficult to achieve. It also suggests that the direct role of government in influencing lifestyle and behaviour can only be modest, by current Chinese standards. Others, in particular social organizations and entrepreneurs, could be more influential in setting trends. Therefore, significant thought would have to be given to designing the necessary initiatives to be most effective and avoid unintended side effects. The study should advise on combinations of initiatives in education and communication policies with various ‘harder’ incentives such as changes to the fiscal system; taxes; and resource pricing. The current CCICED Task Force on Consumption may provide guidance on this matter.

Legal underpinning for coordinated social development and environmental protection. It is a matter of urgency to explore how to address the sense of injustice in relation to environmental issues and unfair exposure to pollution. For example, protest or ‘mass incidents’ occur in part due to a lack of alternative channels – often where the judicial system would not necessarily be appropriate or available as an option. An effective legal regime is built upon characteristics of integrity, authority and long-term consistency. The legal basis for environment policy as well as the system for expressing complaints are undergoing major revisions at the time this report is being written. It is therefore

recommended to evaluate as soon as possible what the current changes mean in the light of the framework of Vision 2050/action in four stages. At this point in time, key aspects for the evaluation seem to include: the balance between judicial and administrative channels to express complaints; the system of participation during the actual revision of the law, including the system of public notification of intended changes, the system of handling and responding to opinions expressed and the system of legislative hearings; and last but not least, the impact of the changes on feelings and opinions of injustice.

Financial resources required for implementing the twin mandates of environment protection and social development. The highly decentralised fiscal system in China creates challenges and opportunities to build and optimize the positive relationship between environmental protection and social development. It creates structures and incentives that undermine the government's capacity to implement its vision. Even when there is a policy statement of coordination in mandates, there is not always a financial allocation mechanism that provides an appropriate level and timely flow of financial resources to various levels of government to fully implement the mandate. Moreover, in current large urbanization projects it happens that late central interventions, for example in land allocation, put a strain on the projects finances and therefore on the envisaged long-term combination of environmental, social and economic objectives.⁴⁹ Thus, a strategic issue is to understand these challenges on the basis of objective information and good analysis. The recommended study can show where the real commitments are to the implementation of the government's vision.

5.4. Conclusion

China is facing enormous challenges at present, including economic restructuring, and rapid innovation in policy and governance. These also provide rare opportunities to explore the relationship between environmental protection and social development. Understanding this relationship will allow China to better develop effective policies that will avoid unintended consequences and maximize the potential for successful outcomes. The achievements made by the Chinese government in these areas will attract attention from many other nations and international organizations.

⁴⁹ See CCICED Task Force Report, *Report on Environmental Protection and Social Development in China*. 218pp-243pp, 266pp-272pp. In Chinese.

Acknowledgments

Financial support for the research was provided by the China Council for International Cooperation on Environment and Development (CCICED), who also convened the Task Force. The support from CCICED has enabled discussion, communication, and surveys among experts from China and internationally, which have served as the essential foundation of the research work. Special thanks to the Chief Advisers of the CCICED Advisory Committee, Professor Shen Guofang and Dr. Arthur Hanson, the Leader of Chief Advisers' Support Team Dr. Ren Yong, and the CCICED Secretariat and support office in providing information and organization and coordination support. The Task Force extends cordial thanks to the CCICED.

As part of the research process, Task Force meetings were held in Beijing, Xi'an and the Netherlands. A study tour was conducted and the Task Force thanks the hosts in the Netherlands and Switzerland for organizing meeting and visits to sites, relevant research units and government departments.

***This report was submitted by the Task Force on
Environmental Protection and Social Development***