



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

**Media and Public Participation Policies on  
Promoting China's Green Development**

**CCICED Special Policy Study Summary Report**

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## Glossary

**Environmental accident:** a judgmental term defining an event that causes an unintended change to environmental conditions or harm to economic, social or ecological situations.

**Environmental communication:** communication by government of such information as environmental pollution, environmental policies and action and environmental data, and communication from citizens and other stakeholders to policymakers on environmentally related topics.

**Environmental incident:** similar in meaning to an environmental accident, but without the value judgment that it was an accident, since some incidents are the result of planned activities or activities without tractable drivers; often used in safety and health reporting as well as for matters affecting ecosystems.

**Environmental information:** a term for information in any format on: the state of the environment; factors affecting the environment, such as pollution, noise and radiation; activities, including policies, legislation and plans that may affect the environment; and the state of human health and safety as it may be affected by the state of the environment.

**Environmental protest:** a public expression of objection, dissent or interest, by words or by actions or violence, to particular construction projects, planning, or policy, in which participants attempt to make their opinions heard, to express discontent or to influence decisions.

**Green development:** an advanced development model that focuses on economic structural adjustment and the elimination of out-of-date production, so as to achieve a more environmentally friendly and more sustainable, upgraded economy in China.

**New media:** media characterized by on-demand access to digital content on multiple devices, as well as interactive user feedback and creative participation. Examples include Facebook, Twitter, Sina Weibo, WeChat, and instant communication tools, such as QQ.

**Public participation:** in this SPS study, public participation implies the active search for, and response to, input from citizens to enable meaningful involvement in environmental decision-making.

## Summary of key findings

1. The Chinese government lacks experience in turning public concern about environmental issues into legal and orderly public participation. This has resulted in a growing incidence of environmental protests and a serious loss of trust between the public and government that could negatively affect China's green transformation and economic upgrading.
2. Full public participation is necessary to rebuild trust between the government and people, to improve policy formation and implementation, and to build ecological civilization. Full participation is closely related to information since information enables participation, and participation adds to the information available to policymakers, thus enhancing the quality of policy outcomes. Participation requires clear rules to promote and facilitate early public involvement in environmental decision-making and systematic education of the public and government at all levels on environment and sustainable development. The Chinese experts in the policy study found that public participation should be promoted systematically as both a right and responsibility. This did not reach full agreement between all of the policy study members.
3. Full public participation in environmental protection has been hampered by inadequate implementation of existing government laws and regulations and the lack of sufficient channels for concerned stakeholders to represent their legitimate interests or to protect themselves against the consequences of poor policy decisions.
4. The government's support for the goal of public participation has been inadequate; insufficient resources have been devoted to environmental education, and environmental information is not optimized or integrated. Improvement is further required in the following areas: environmental information disclosure; response to letters and visits from the public and environmental complaint hotlines; definition of competencies and responsibilities of different organisations and agencies across government; and optimization of resources and functions to support public participation in environmental protection.
5. Government performance in the following areas is also inadequate: communications in environmental emergencies; environmental monitoring and pollutant control and elimination; environmental information disclosure; response to the media and the public over pollution incidents; and controversial new construction projects and other environmental issues of concern. Further research could help to

illuminate the lessons of recent environmental incidents and protests, so as to avoid future mistakes.

6. The government lacks an active and systematic strategic plan for environmental communications. A strategy to upgrade and integrate environmental public relations, identify potential environmental risks, provide systematic solutions, and offer open information and proactive communications is required.

7. New media have become important channels for the Chinese public to access environmental information, to express their wishes and opinions, to participate in environmental decision-making, to exercise their right of supervision, and to make green choices that benefit the environment. Government at every level has an inadequate understanding of the important potential for new media to promote public participation and improve interaction with the public and this is hampering its efforts both to understand public opinion and to communicate effectively with the public.

## **Summary of main policy recommendations**

1. Strengthen legal and orderly public participation in environmental fields as an important basis for promoting Ecological Civilization, building a ‘Beautiful China’ and bringing benefit to the Chinese people.
2. Promote and develop open environmental information systems; consolidate and improve information management capabilities of central and local government and enterprises, and effectively implement open information legislation.
3. Create a comprehensive environmental communications strategy to include the accelerated introduction of national environmental education legislation, in order to raise environmental awareness and promote environmental participation across all sectors of society.
4. Improve the implementation of existing laws, regulations and policies on public participation in planning. Reform and introduce new laws, regulations and guidelines to improve public participation where necessary.
5. Adapt government communications to the new media context; promote an open media system suited to the challenge of green development, with support for environmental reporting and enhanced two-way online communication between government and the public.
6. Improve environmental incident response mechanisms.

## **Background and implementation of the project**

The emergence and rapid development of information technology, such as the Internet, social networks and instant communication tools in China have changed the form of public participation in Chinese society. The collection of and response to public opinion is therefore also facing unprecedented challenges. In this new environment of information and social transition, how can the government make comprehensive use of traditional and social media to conduct environmental communication and education more effectively? How can the public learn to express its demands and participate in environmental protection? How can new media broaden the channels for public participation in environmental protection? And how should the government respond to the growing number of environmental incidents in the country? These are the new issues that central and local governments face. This CCICED Special Policy Study (SPS) aims to provide policy recommendations to the State Council on media and public participation to cope with these challenges.

This SPS was a cooperation between Chinese and international experts. The research team includes co-chairs, core experts, supporting experts, advisory experts and coordinators. The study began work in late February 2013, and the main research work was completed at the end of September 2013. In the past seven months, the research team completed the following: convened three working meetings (March 20; May 9-10; and July 22-23) and one writing meeting (September 12-13) in Beijing; completed one international field trip in the end of June to Sweden and Germany; and conducted seven Chinese field trips to Jinan, Shandong, Xi'an, Shanxi, Chengdu, Pengzhou, Shifang, Xiamen and Jiangmen. More than 10 relevant organisations and personnel were interviewed, including officials in the Ministry of Environmental Protection, social experts in Chinese Academy of Social Sciences, influential NGO leaders, local governmental leaders, participants in environmental protests and enterprise leaders from controversial projects. During the research process, we kept close contact with the CCICED teams, with more than four oral presentations to the secretary on this study.

We sincerely hope that these SPS policy recommendations will offer a timely and positive contribution to China's green development.

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## **1. INTRODUCTION**

The rapid industrialization and urbanization of Chinese society represents remarkable economic progress. However, the speed of change and the unbalanced character of economic and social development have brought severe social stresses and environmental degradation. In the next 15 years, China will further accelerate its urbanization and industrialization and aim to build a moderately prosperous society. Although the 18<sup>th</sup> CPC National Congress paid unprecedented attention to “ecological civilization” and proposed the building of a “beautiful China,” public expectation is very low due to the continuing deterioration of the environment.

Public discontent over such serious long-term environmental problems as air, water and soil pollution has contributed to a growing mistrust of government communications, associated public demands for transparency and participation in environmental decision-making, and a mounting tally of social protests. Achieving an ecological civilization will require full public participation. Without this, lasting environmental protection cannot be ensured, discontent will continue to grow and trust will not be restored. Such public participation would be a bottom-up, sustainable force. To participate effectively, the public needs to be informed and environmentally aware. This requires education, good government communications through both formal and social media, and improved information disclosure.

In September 2013, Premier Li Keqiang chaired an executive meeting of the State Council, which concluded that the disclosure of government information is required by law, both to allow government to maintain close contact with its citizens, and to ensure that government officials support the citizen's right to know, to participate and to supervise. This report echoes Premier Li's earlier remarks at China's Seventh National Environmental Protection Conference that channels of public participation in environmental protection should be smoothed to allow citizens' voices to be fully heard in environmental planning and decision-making, to expose environmental violations, and to enhance social supervision.

But despite the introduction of the Interim Measures for Public Participation into Environmental Impact Assessment, the Environmental Information Disclosure Ordinance, and other related regulations, most of the government's decision-making

process remains closed, with no participation from the general public or other stakeholders.

Mechanisms for public participation are weak; access to information is often blocked; everyday government communications and emergency communications during environmental incidents are inadequate; and citizens' voices are not heard. Public participation in environment and development is a necessary part of the decision-making, policy formation, and implementation required to build an ecological civilization. The public increasingly distrusts closed processes, where decisions are made by experts and enforced by government, and demands participation and transparency in policy formation and implementation, as well as access to environmental information.

Furthermore, the digital age has transformed the way citizens receive, process and distribute information. In the new media digital age, the public can no longer be expected to be passive recipients of top-down information, but increasingly produce their own content, choose their own sources, and decide for themselves whom to trust and what to believe. Today more than ever, green development depends upon good two-way communication and information disclosure. Where access to information has been blocked, where information has proven unreliable or its release has been unnecessarily delayed, public trust has been undermined, rumours have flourished and the risk of social conflict has grown. Without more open information, more responsive and effective government communications through all available media, and more effective public participation, green development and ecological civilization cannot be achieved. Where information is withheld and meaningful participation thwarted, frustrations will continue to find expression in protest. Rebuilding trust between citizens and government in the digital age is a multi-faceted task that begins with removing the obstacles to citizen participation and access to information and requires an open and trusted system of government communications at every level.

This study aims to identify obstacles to full public participation, access to information and deficiencies in government communication on environmental issues in China, to present a positive vision for best practice on public participation, communication in the digital age, and open information for green development and ecological civilization. Additionally, it aims to make recommendations with a plan for improving communication, participation, policy outcomes, and implementation, thereby helping to build ecological civilization and trust between citizens and their government.

## **2. PUBLIC PARTICIPATION**

### **2.1. Introducing public participation**

Public participation in China's green development involves three aspects: information disclosure, public participation, and communications. Full public participation should be a cooperative, joint enterprise between government and an informed, engaged public, where citizens should not only have the right to object, but also the right to participate in the early stages of decision-making. In other words, the public should be involved in deciding what kind of environment they would like to live in.

Environmental education is an important aspect of public participation. Public participation should support the citizen's ability and opportunity to learn. Likewise, an environmentally educated public can be expected to make better consumer choices and to play a full part in environmental decision-making. International experience of collaborative planning shows that the public's willingness to engage with scientific and technical information is closely related to their capacity to understand and do something with that knowledge in a deliberative context. If people have real power to effect change, or to participate in environmentally significant planning decisions, they will engage with information in a sophisticated manner. If they do not have power, they are more likely to display apathy, indifference or hostility, which can lead to public protest.

This Special Policy Study considered environmental incidents, such as chemical spills, and social incidents, such as protests related to planning and environmental decision-making. Both environmental and social incidents, when poorly handled, can do lasting damage to public trust in government, restricting the progress of China's green transition. All require transparency from government and rapid, responsible and effective communications. Representative examples of social incidents in China related to proposed projects in recent years are presented as table 1:

**Table 1: Representative examples of social incidents in China**

<b>Year</b>	<b>Place</b>	<b>Focus of protest</b>
2007	Xiamen, Fujian	Proposed PX project
2007	Shanghai	Maglev train route
2007	Yantai, Shandong	Haiyang nuclear power station
2007	Beijing	Liulitun waste incinerator
2008	Chengdu, Sichuan	Pengzhou petrochemical project
2008	Guangzhou, Guangdong	Nansha petrochemical project

2008	Nanjing, Jiangsu	PX project
2009	Guangzhou, Guangdong	Waste incineration
2012	Shifang, Sichuan	Copper refinery
2012	Qidong, Jiangsu	Waste-water pipeline from paper factory
2012	Ningbo, Zhejiang	Zhenhai PX project
2013	Kunming, Yunnan	PX project

Where public participation in environmental decision-making is non-existent or ineffective, public suspicion of development projects is high and levels of public trust tend to be low. In the absence of effective channels for public participation in environmental decision-making, and in the event of environmental incidents, citizen voices frequently find their outlet through protest. Protests related to environmental problems have increased at an average annual rate of almost 30% in recent years. This is a situation that not only undermines social cohesion but also indicates and contributes to less sustainable policy decisions, potentially threatening its green development plans and economic upgrading. China has thus reached a critical point in its green transformation.

Legal and orderly public participation in planning ensures more environmentally, socially and politically sustainable decisions and improves the chances that better and more acceptable decisions will be made, which will be more readily supported by the public. Public participation may prolong the planning process, but international experience suggests that the benefits of higher quality decisions, greater public acceptance, and the resulting increased legal security for investors and enhanced social harmony, outweigh the costs of a delayed process and help to mitigate the risk of project cancellation at later stages, a risk that is unnecessarily high in China today. Informing the public at the earliest juncture about the public participation process and the scope of the decision to be taken, rather than soliciting public participation after a developer submits an application for a project, is also shown to be more sustainable, since it allows the public to contribute to improved or alternative development concepts. This offers the opportunity to turn potential hostility into involvement and support, and allows the authorities to better evaluate not only which is the best concept, but also which will gain greater public acceptance.

In China, offering a structured process for legal and orderly public participation will help to increase social harmony, maximize fairness, improve policy outcomes and implementation and address the highly uneven nature of public participation at a time when there is a low level of public trust in the political authorities.

### **BOX 1: STUTTGART 21**

Stuttgart 21 is a railway and urban development project in the German city of Stuttgart, the details of which were negotiated in the early 1990s among different government and industry stakeholders, and although no laws were broken in the development process, no great effort was made to ensure the fullest possible public participation in the planning of this large-scale project. Protests broke out in 2009, when residents were surprised to see construction crews arriving on the site and trees being cut down. The following year, hundreds of demonstrators were injured when the police deployed water cannons, pepper spray and batons to clear protestors. This police overreaction infuriated the public, leading to a 50,000-strong protest the following day, organised via social media, and a major electoral victory for the Green Party in the state elections that followed.

This experience forced the Stuttgart city authorities to change strategy. The developers created a web-forum to solicit structured public participation, where opposing views on the project were sought, questions regarding the project were collected on a daily basis and the most important and relevant ones were chosen by participants through an online voting mechanism, to be answered by the relevant authorities. The Stuttgart 21 case thus provides an illustration of how following limited public participation procedures is sometimes insufficient to achieve complete understanding of popular sentiment, and a more cooperative and early-stage approach is required to gain public acceptance and avoid social conflict around a controversial planning decision. Such a digital platform facilitating early-stage public participation provides a model for potential pilot projects to help avoid social conflict in planning in Chinese cities, where plans for large industrial developments, power plants and other projects have sparked frequent conflicts.

## **2.2. Public participation in green development**

The core of international agreements on public participation in environmental decision-making is Principle 10 of the Rio Declaration agreed at the United Nations Conference on Environment and Development, (the “Earth Summit”), in Rio de Janeiro in 1992:

*“Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous material and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available.*

*Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.”*

The Rio Declaration thus links public participation to access to information and access to justice or redress. Basic implementation guidelines for Principle 10 are set out in the *Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters* (the “Bali Guidelines”), which were adopted in 2010 by the governing body of United Nations Environment Programme, which includes China. These guidelines are not laws, but represent the international consensus on public participation in environmental matters, as well as the importance of information disclosure as a basis for such participation, and thus provide a benchmark against which the implementation of Rio Principle 10 can be assessed. More than 90 countries have since adopted framework laws or regulations for access to information, including China, Indonesia, Nigeria, Liberia, Mongolia and Brazil.

**BOX 2: THE BALI GUIDELINES RELATING TO OPEN INFORMATION AND PUBLIC PARTICIPATION**

**Guideline 1:** Any natural or legal person should have affordable, effective and timely access to environmental information held by public authorities upon request (subject to guideline 3), without having to prove a legal or other interest.

**Guideline 2:** Environmental information in the public domain should include, among other things, information about environmental quality, environmental impacts on health and factors that influence them, in addition to information about legislation and policy, and advice about how to obtain information.

**Guideline 3:** States should clearly define in their law the specific grounds on which a request for environmental information can be refused. The grounds for refusal are to be interpreted narrowly, taking into account the public interest served by disclosure.

**Guideline 4:** States should ensure that their competent public authorities regularly collect and update relevant environmental information, including information on environmental performance and compliance by operators of activities potentially affecting the environment. To that end, States should establish relevant systems to ensure an adequate flow of information about proposed and existing activities that may significantly affect the environment.

**Guideline 5:** States should periodically prepare and disseminate at reasonable intervals up-to-date information on the state of the environment, including information on its quality and on pressures on the environment.

**Guideline 6:** In the event of an imminent threat of harm to human health or the environment, States should ensure that all information that would enable the public to take measures to prevent such harm is disseminated immediately.

**Guideline 7:** States should provide means for and encourage effective capacity-building, both among public authorities and the public, to facilitate effective access to environmental information.

**Guideline 8:** States should ensure opportunities for early and effective public participation in decision-making related to the environment. To that end, members of the public concerned should be informed of their opportunities to participate at an early stage in the decision-making process.

**Guideline 9:** States should, as far as possible, make efforts to seek proactively public participation in a transparent and consultative manner, including efforts to ensure that members of the public concerned are given an adequate opportunity to express their views.

**Guideline 10:** States should ensure that all information relevant for decision-making related to the environment is made available, in an objective, understandable, timely and effective manner, to the members of the public concerned.

**Guideline 11:** States should ensure that due account is taken of the comments of the public in the decision-making process and that the decisions are made public.

**Guideline 12:** States should ensure that when a review process is carried out where previously unconsidered environmentally significant issues or circumstances have arisen, the public should be able to participate in any such review process to the extent that circumstances permit.

**Guideline 13:** States should consider appropriate ways of ensuring, at an appropriate stage, public input into the preparation of legally binding rules that might have a significant effect on the environment and into the preparation of policies, plans and programmes relating to the environment.

**Guideline 14:** States should provide means for capacity-building, including environmental education and awareness-raising, to promote public participation in decision-making related to the environment.

### 2.3. Public participation laws and their implementation in China

In China, the main laws that provide for public participation in new development projects are the *Environmental Impact Assessment (EIA) Law* (2002), *Administrative Licensing Law* (2003) and the Ministry of Environmental Protection's *Interim Measures on Public Participation in the EIA Process* (2006). Article 5 of the *EIA Law* stipulates that: "The state encourages relevant entities, experts and the general public to participate in the appraisal of the environmental impacts in appropriate ways." However, at present the solicitation of public opinion comes not at the early, scoping stage, but only after a project design is finalized and an EIA completed, though before it is submitted for official approval. Article 17 of the *Interim Measures* states that "construction units [and] EIA agencies authorized by the units should take public opinions seriously and make it clear whether to adopt or not in the EIA Statements."

In China, the methods of public participation popularly employed to comply with these measures include public hearings, surveys, expert consultations and seminars. Public hearings can and should be held in China throughout the entire process of preparing EIAs, the issuing of licenses for proposed construction projects, the issuing of some administrative penalties for environmental violations, and where new environmental legislation is proposed. At present there are no detailed, standardised instructions for the conduct of hearings, nor is there a standardised way for selecting public representatives to participate in hearings. Chinese local governments also use polling, by both governmental and non-governmental pollsters, in environmental decision-making. By the end of 2009, 23 provincial governments had established polling companies.

#### **BOX 3: HOTLINE 12369**

China's Hotline 12369, operated by the Ministry of Environmental Protection allows the public supervision of the enforcement of environmental regulations through telephone tip-offs about pollution incidents. However, many people do not know about the Hotline. A survey conducted in 2005 showed that fewer than 20% of those questioned knew that it existed. In June 2013, the hotline received a total of 149 complaints from the public, suggesting awareness of the hotline is extremely low.

## 2.4. Public participation in practice

The Bali Guidelines state that members of the public concerned should be informed of their opportunities to participate at an early stage in the decision-making process. The “public concerned” is defined in those guidelines as the public “affected or likely to be affected by, or having an interest in, the environmental decision-making”. Furthermore, non-governmental organisations (NGOs) promoting environmental protection (and meeting any requirements under national law) are also deemed to have an interest. This is often not the case in the Chinese context, where the process of identifying the public concerned has not been standardized and NGOs are typically not given the opportunity to engage in legal and orderly public participation processes, reducing the effectiveness of the public participation process, decreasing the likelihood of public acceptance, and increasing the likelihood of unrest and social protest. In Germany, for example, qualified NGOs (those that are non-profit, operate in the whole nation and serve the common interest) can register to obtain a legal status that entitles them to be consulted by government on environmental issues and challenge government decisions in court.

The US Environmental Protection Agency notes that a thorough process of identifying the interested and affected public is the “cornerstone” of public participation. It recommends that environmental protection officials identify the public concerned through:

- Research: into the community, its history, groups and past environmental decisions, including through the use of surveys, questionnaires and scientific sampling to identify those who might be concerned or affected by the issues;
- Communication: with community groups and leaders, individual stakeholders, experts, local officials and environmental organisations, as well as other environmental protection officials;
- Publicity: about the clearly defined reason for public participation, stressing the value placed on the community’s participation, using diverse sources of media, including email, printed flyers, mailings, meetings, door-to-door contact, radio, or advertisements in newspapers.

International experience suggests that the public participation process that follows this identification of the public concerned should take multiple forms and that an effective process of public participation must be underpinned by procedures that allow a decision to be challenged in the court of law. Various methods should be employed in order to promote a positive dynamic of interaction between empowered and mobilised citizens

and a government committed to cooperating with the public. Based on academic literature and the investigations carried out by this Special Policy Study, table 2 is a brief overview of some of the methods used for various purposes in the public participation process.

**Table 2: Brief overview of public participation methods**

<b>Purpose</b>	<b>Appropriate method</b>
Disseminating information	Press conferences; printed media (e.g. flyers); websites and online notices; government microblogs; presentations; exhibitions; public displays.
Gathering additional sources of ideas and information	Citizens' juries; consensus conferencing; focus groups; deliberative opinion polls; online polls; crowd sourcing; online forums; social media analysis; citizens' panels; referenda.
Monitoring and appraisal by citizens	Design dialogue; citizen science; online mapping; community-needs analysis; priority search; public scrutiny; village appraisal; parish mapping; community indicators.
Broadening of public acceptance and reducing social conflict by bringing together stakeholders (including government)	Public hearings; consensus-building; future search; community visioning; round tables; online forums.

**BOX 4: BOTKYRKA**

The “design dialogue” method for public participation in urban planning has been successfully demonstrated in the municipality of Botkyrka in Sweden. In a series of structured workshops over a period of around two months, different members of the community, including school-age children, were invited to share their knowledge and feelings about their community, evaluate different development options and come to a consensus on a development plan. Photographic documentation and visualisation techniques, conversational aids, such as game boards and storytelling, as well as exhibition showrooms, were used to facilitate dialogue and flatten differences in status and educational level. Thus, the municipality, working closely with the architecture firm Nyrens Architect Bureau, came up with a long-term urban re-development plan that has helped to turn a relatively poor and marginal community, with many social divisions, into a socially and ecologically sustainable community.

### **3. ACCESS TO ENVIRONMENTAL INFORMATION**

#### **3.1. Introducing open environmental information**

Transparency in environmental information is not only desirable for its own sake, but also because it leads to better policy outcomes and higher levels of public consent. These outcomes are more sustainable environmentally, socially and politically.

Government information strategies, in any country, serve a variety of purposes. Governments may be concerned to: provide citizens and organisations with the knowledge and means required to alert them to environmental problems, so that early action can be taken to avoid harm to people or social order; raise awareness of existing or anticipated environmental problems or emergencies, such as pollution or flooding, to provide guidance to citizens on how to protect themselves and provide clear information about government action in the emergency; have a better understanding of citizens' and stakeholders' sentiments, anxieties and priorities on environmental issues; or to build policy around citizen and stakeholder perceptions.

Citizens and organisations that make use of information may also have different purposes. They may be concerned, for example, to: ensure that policymakers are properly informed about the contexts of environmental decisions, including the concerns of citizens and stakeholders, and to influence policy decisions that affect them; and to obtain reliable and relevant information and guidance to guide their choices in daily life in pursuit of green consumption. Informative labeling and rating systems, for instance, help to identify green choices, and consumers might choose between brands on the basis of information about the environmental performance of the manufacturer. Government approaches to information provision are most effective when they recognise and accommodate these user priorities, as well as serving the objectives of the providing agencies.

##### ***3.1.1. The new media context***

The last 10 years have seen great changes across the world in the ways in which information is provided and shared, stemming from developments in information and communications technology. The development of the Internet and the World Wide Web has enabled information providers to make much more information available, in new

forms, and has enabled users to gain access to a much broader range of information, from a wide variety of official and unofficial sources. The more recent development and adoption of online social networks and microblogging facilitate fast information sharing within both closed and open user groups, accelerating the spread of information. The integration of these communication applications with audio, image and video applications has greatly enriched sharable content. The proliferation of mobile phones and more recently of smart phones has made the Internet and social networking applications much more readily available to many more people, on the move as well as from fixed locations, intensifying online activity.

According to the China Internet Network Information Center, China has 591 million Internet users and more than 460 million mobile Internet users. China's Internet has already been through three, major development stages, from the era of large, portal websites in 2003 to the rise of the search engines and bulletin boards in 2008 and the take-off of Chinese language micro-blogging in 2010. SinaWeibo, the largest micro-blogging service, has more than 500 million registered users. The QQ instant messaging service had 798.2 million registered users at the end of 2012. Today citizens use a new range of media platforms, such as bulletin-board systems (BBS) and QQ groups, to share information on and organise opposition to polluting projects, waste incinerators or infrastructure projects. Opinions can be shared among the public with ease, and stories that emerge in new media can become important issues in traditional media, amplifying the debate in the public sphere. New media platforms have also given a platform to new, charismatic opinion leaders and citizen journalists.

There are important distinctions between the approach to information provision through traditional media and those that are effective in the new media environment. Traditional media mechanisms for environmental information based around print media, broadcasting and even formal consultation, have generally been hierarchical. They have enabled policymakers at every level of government to deliver messages to citizens and communities, but offered little scope for the interaction or feedback that might help policy makers learn from citizens. New media, by contrast, particularly social media, such as online social networks and microblogging sites, are networked rather than hierarchical, and highly interactive, enabling users to exchange views and contribute their own content, including multimedia content, to discussions in real or near-real time, thus blurring the boundaries between information and participation.

This has two important implications for policymakers and officials, who need to adapt to the dynamics of these new information channels. First, it makes it much more difficult to control the flow of information on environmental issues, particularly where these environmental issues may have powerful local impacts. Policymakers must expect information and comment on environmental issues to spread widely and rapidly through social media, influencing public opinion. Some, but certainly not all, of this information will be accurate; some may be malicious, self-interested, or merely misinformed. The best way for government agencies to ensure that public discussion is fair and well-informed, and to reduce the influence of rumours, be they innocent or pernicious, is for policymakers and officials themselves to provide accurate, comprehensive, reliable and timely information that the target audience trusts. Second, social media should be used alongside traditional media within a cohesive framework for providing environmental information. The inclusion of social media in information strategy is important both because of the speed with which information can travel on social media and because they are increasingly influential. Different social media have different characteristics, however, and should be incorporated in different ways. Successful strategies are likely to be those that understand and exploit the value of horizontal networking among networks' user communities. Strategies for using social networks that see them as channels for top-down information management are unlikely to be effective.

Information provision should aim to secure more sustainable policy outcomes and enhanced public involvement, understanding and therefore consent to environmental policies and decision-making. These aims are closely linked with public participation. Public trust and confidence in the information made available is extremely important. This is partly a matter of trust in the source, partly of its perceived reliability, and partly of its relevance to the users' own circumstances. As shown in the case studies of environmental incidents below, information that proves unreliable, inaccurate or out of date jeopardises confidence in future information, fosters rumours, anxiety and misunderstanding, and encourages alternative sources.

For example, attempts by government authorities in China to censor and regulate online media coverage of protests almost invariably provokes a public backlash, greater confrontation, greater credence for rumour and greater public sympathy with the protestors, not to mention a further reduction in levels of public trust in government. It is clear that if government departments are concerned about the spread of rumours, the most

sustainable and effective strategy is to respond with greater transparency and the timely provision of accurate information.

**BOX 5: CHONGQING ENVIRONMENTAL PROTECTION BUREAU**

In an effort to create a communications platform between the government and the public that is effective in the new media context, the Chongqing Environmental Protection Bureau started a series of microblog accounts. These accounts, on Sohu, Tencent and Sina Weibo, are intended as new platforms for faster information dissemination, greater transparency and improved responsiveness to public opinion and citizen complaints. The accounts have around 300,000 followers, and there are individual accounts for each of Chongqing Municipality's 40 districts. EPB employees have specialized training on how to use and coordinate microblogging effectively. This training outlines various principles, including maintaining a culture of openness that accepts criticisms from the public as valuable information, valuing accuracy, and admitting errors where they occur, thereby increasing public trust. The accounts are used for releasing air quality information, tips on more environmentally responsible behaviour and practical advice. When environmental emergencies occur, the accounts are used to give citizens fast and accurate information about the risks and hazards; this method is much quicker than traditional media, helping dispel rumours, Xinhua news agency has praised the accounts as a model for helping to avoid social unrest.

### **3.2. Open information laws and their implementation**

International agreements on access to information do not have the force of law in China, however, they are foundation documents that have emerged from extended discussions within the United Nations framework and provide a sound starting point for legislation and implementation in UN member-states, including China. The Bali Guidelines call for public authorities in all countries to provide “affordable, effective and timely access to environmental information” to citizens and organisations on request, including “information about environmental quality, environmental impacts on health and factors that influence them... information about legislation and policy, and advice about how to obtain information.” Underlying these principles is the idea that information raises the level of debate and influences opinions that might otherwise be compromised by mistrust and bias, thus helping to underpin more sustainable decision-making. Governments are thus expected to establish processes for the regular collection and publication of “information about proposed and existing activities that may significantly affect the

environment,” and to build the capability of public authorities and the public to make use of information access.

### ***3.2.1. Open information laws in Europe***

The principles of information transparency that emerged from the 1992 Rio Summit underpin approaches to environmental engagement, particularly information transparency, that were subsequently adopted by a number of governments and regional organisations, most extensively in Europe. There are two key European institutions: the Aarhus Convention of the United Nations Economic Commission for Europe (UNECE), whose membership also includes North America and parts of Central Asia, and the European Environment Agency (EEA).

#### *3.2.1.1. The Aarhus Convention*

*The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, known as the Aarhus Convention, was agreed by member-states of the United Nations Economic Commission for Europe (UNECE) in 1998. It grants extensive information access and participation rights to individuals, communities, businesses, NGOs and civil-society organisations on issues concerning the environment.

The Aarhus Convention requires governments to publish or make public both general environmental information and information of environmental significance relevant to specific individuals or communities. It states that the public should be informed “early in an environmental decision-making procedure and in an adequate, timely and effective manner” about any specific environmental matter that affects them, afforded the information necessary to understand and analyse its impact, and provided with the means to express their views.

As well as encouraging publication of environmental information, the Convention grants individuals and organisations the right to obtain unpublished information. Under the Aarhus provisions, any individual or organisation can request and obtain any “environmentally relevant” information (as defined above) from any national or local government agency, any public body, or any private company that provides public services (such as a privatised utility). Applicants do not have to give any reason for their

request. There is also a presumption in favour of disclosure: public agencies must provide the information requested, within set time limits, unless there are very specific and narrowly defined reasons why it would not be appropriate in a particular case. Information is not confined to data and final policy documents, but includes material related to decision-making processes.

#### **BOX 6: POLLUTANT RELEASE AND TRANSFER REGISTRIES**

A 2003 Protocol to the Aarhus Convention established the Pollution Release and Transfer Register (PRTR). PRTRs are national databases of potentially hazardous materials that are released into the environment (air, water or soil) and/or transferred elsewhere for treatment or disposal. Businesses and public sector bodies responsible for pollutants are required to report regularly on the quantities of pollutants they release or transfer. Published data enable governments and other stakeholders to monitor businesses' environmental performance, hold high polluters to account and take any necessary enforcement action. The public reporting requirement tends to encourage companies to reduce their pollution and, in some cases, to identify ways of making productive use of waste materials. European Union directives require EU member-states to implement the Aarhus Convention, including the PRTR, in national legislation. Encouragingly, China's Ministry of Environmental Protection introduced a PRTR system into the nation's *Measures for the Hazardous Chemical Management and Registry*, enforced in March 2013. Related regulations were published in July 2013. However, the list of substances concerned has not yet been published.

#### *3.2.1.2. The European Environment Agency*

The European Environment Agency (EEA) is an agency of the European Union, although a number of non-EU countries have also chosen to participate in its work. It defines its role as being:

*“to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy-making agents and the public.”*

The EEA gathers and makes available data sets, including near-real time data, on the whole range of environmental issues; produces integrated environmental assessments and thematic analyses; monitors the effectiveness of environmental policies; and seeks to anticipate emerging issues to gather information ahead of policymakers' needs. In 2013,

a typical year, it will prepare and publish around 35 annual and analytical reports on major environmental issues across Europe.

Eionet is a partnership between the EEA and its member-states, built around a network of 1,500 contact points, research institutes and key informants, which collate and share data for dissemination, and develop thematic and integrated assessment reports and national State of the Environment Reports. It currently works around six topic centres: air pollution and climate-change mitigation; climate-change impacts, vulnerability and adaptation; biodiversity; inland, coastal and marine waters; spatial information and analysis; and sustainable consumption and production.

The EEA is developing a Shared Environmental Information System (SEIS), networking the information systems of EEA member states to “create an integrated web-enabled, EU-wide environmental information system.” This represents a shift in the overall approach of environmental information dissemination; “from individual countries or regions reporting data to specific international organisations, to creating online systems with services that make information available for multiple users – people and machines.”

The principles of this shared environmental information system were crystallised in an important document from the Eye on Earth Network, known as the 2013 Dublin Statement, which states that data and information should be:

- Collected once and shared with others for many purposes
- Managed responsibly at source
- Readily available to easily fulfil reporting obligations
- Easily accessible for users and available in national languages
- Enabling comparisons on the appropriate geographical scale and to support citizen participation
- Supported through investment in common standards and interoperable systems

The emphasis on supporting citizen participation signals support for citizen science initiatives, which the EEA supports as high quality, cost-effective methods of data collection that improve public participation and policy implementation.

#### **BOX 7: MAPPING FOR CHANGE**

Mapping for Change is a London-based social enterprise founded by Muki Haklay, a professor of geographic information science, and Chris Church, a veteran environmental campaigner, which uses online maps as tools for public participation in sustainable development. For example, when Mapping

for Change was approached by residents of Pepys Housing Estate in Deptford, a disadvantaged area of south London, who wanted to campaign against an unpopular local scrapyards, the organisation developed a methodology for collecting noise measurements with cheap, hand-held devices that the residents could use to create an online map of noise pollution in the area. For the first time, the community had a visual way to show what they had been struggling to argue for eight years, and at a public meeting, the community were able to present the authorities with the evidence. The local authorities and the environmental agency were able to see that there was a problem, which was subsequently confirmed by professional acousticians. The environmental agency subsequently revoked the license for the scrapyards. The case demonstrated the value of citizen science, not only in public supervision, but also in improving environmental education and social cohesion. For example, one of the women from the community in Deptford, who did not have a high level of formal education, reported that her involvement in the project inspired her to study for a work-based qualification.

### ***3.2.2. Implementation of open information laws***

An appropriate legal framework is essential for effective environmental information provision. Legislation, however, is not sufficient in itself to ensure that information provision is an effective part of environmental governance. European experience suggests that three further aspects are required:

- Government agencies and officials need to ensure that legislation is effectively implemented. This requires training and awareness-raising across government.
- Businesses and organisations responsible for activities that affect the environment need to implement procedures that enable them to provide information and respond to information requests promptly and proactively. European experience, notably with the PRTR, suggests that businesses which do so can gain significant competitive advantages, as they become more aware of their own environmental impact and of potential cost savings that may result from mitigation.
- Information needs to be provided in ways that are relevant and appropriate for different audiences, and which build public trust in the information that is made available. This is best achieved through an open approach that provides relevant information in ways that can be readily understood by non-specialists and which recognises the value of feedback from those affected.

The overall aim of environmental information provision in Europe and elsewhere is to develop a culture of information provision that is supported both by legislation and these essential elements of implementation. Such a culture presumes that information should be provided unless there are strong reasons not to do so. To achieve this, it is important that the scope of environmental information is clearly defined in legislation and in guidelines to officials.

Environmental Impact Assessments have also proven particularly important in determining the suitability of industrial and other development proposals. Their publication in full has been important in European efforts to engage public opinion and ensure that developments are environmentally sustainable.

### ***3.2.3. Open information laws and their implementation in China***

The Chinese Academy of Social Sciences established a specific research institute focusing on open government information laws in 1999. In 2006, this institute submitted China's first draft regulations on open government information to the State Council. The *Open Government Information Regulations of the Peoples Republic of China* (OGIR) came into effect in May 2008. The *Measures on Open Environmental Information*, the first decree specifically based on the OGIR, entered into force at the same time.

The measures require not only environmental authorities but also enterprises to disclose environmental information, both proactively and in response to information requests from citizens. In the measures, "government environmental information" refers to information made or obtained by environment authorities in the course of their environmental protection work; "enterprise environmental information" refers to information about environmental impacts arising from an industry's operations.

The measures stipulate that environmental protection departments should disclose government environmental information on their own initiative: "by means of government websites, government gazettes, press conferences, as well as through newspapers and other publications, radio, television and other methods that make it convenient for the public to be informed." Enterprises are also encouraged to disclose environmental information voluntarily. The government also mandates the disclosure of certain types of information from industry, including emergency plans for sudden environmental pollution accidents, and discharge information if polluters have exceeded national or

regional pollution limits. The measures also specify that government environment information should be made available to the public within 20 working days; responses to information requests from citizens should be answered within 15 working days; and major polluters must disclose and report emissions data within 30 days.

Independent studies have been conducted to assess the enforcement of these regulations. These have consistently shown that while many environmental departments have stepped up their efforts in environmental information disclosure since the adoption of the measures, considerable shortcomings remain, and progress has been highly uneven. Local authorities vary hugely in how and to what extent they disclose environmental information to the public. One positive example of increased proactive disclosure is the transparency around air quality information, pioneered in Beijing in 2012.

**BOX 8: PM<sub>2.5</sub>**

Beijing suffered terrible air pollution in late 2011, but official monitoring data merely indicated that the air was “slightly polluted”, stirring strong dissatisfaction among citizens. A major focus of attention became small particulate matter, known as PM<sub>2.5</sub>, which was collected but not reported in the Ambient Air Quality Standards, leading to a significant gap between the official data and people’s impressions. Citizen science efforts and independent air quality measurements, including from US Embassy measurements that were posted on social media, confirmed the high levels of PM<sub>2.5</sub> and widespread concern about the issue on social media caught the attention of China’s decision-makers. On November 15, 2012, then Premier Wen Jiabao said that monitoring standards for environmental quality should be improved and should gradually reach international standards. At the Seventh National Environmental Protection Conference, then Vice-Premier Li Keqiang also demanded that the air quality standards be revised and published as soon as possible. PM<sub>2.5</sub> has now been included in real-time pollution indicators in many Chinese cities, including Beijing.

Many of the regions where pollution is at its worst have not enforced the regulations effectively. The primary concern is that requests for information from citizens concerned about environmental risks are routinely rejected on spurious and unlawful grounds, such as inconvenience. Scholars have suggested this is due to a lack of capacity, training and specificity in the regulations, as well as a pervasive bureaucratic culture of secrecy at a local level. Citizens’ requests for Environmental Impact Assessments (EIAs) are frequently rejected. Although EIAs are required in Chinese legislation, they are not generally published in full. Access to information about the most hazardous pollutants,

such as heavy metals and dioxins, is frequently barred. Polluting enterprises have been allowed to maintain an indifferent attitude towards the information disclosure measures. This has the unfortunate effect of undermining public trust in government when it is needed most.

The following scorecard in table 3 indicates China’s current level of compliance with the Bali Guidelines.

**Table 3: China’s current level of compliance with Bali Guidelines**

<b>BALI GUIDELINES RELATING TO INFORMATION ASPECTS OF ENVIRONMENTAL INFORMATION AND PARTICIPATION</b>	<b>CHINA’S REGULATIONS AND POLICIES ON OPEN ENVIRONMENTAL INFORMATION</b>
Guideline 1: Any natural or legal person should have affordable, effective and timely access to environmental information held by public authorities upon request (subject to guideline 3), without having to prove a legal or other interest.	<p style="background-color: yellow;">≈ Would benefit from improvement.</p> <p>China’s <i>Measures on Open Environmental Information</i> (2008) state that: “Citizens and legal persons and other organisations may request environmental protection departments to obtain government environmental information.” In practice, many find that access is refused or delayed.</p>
Guideline 2: Environmental information in the public domain should include, among other things, information about environmental quality, environmental impacts on health and factors that influence them, in addition to information about legislation and policy, and advice about how to obtain information.	<p style="background-color: yellow;">≈ Would benefit from improvement.</p> <p>The <i>Measures</i> define “government environmental information” as “information made or obtained by environmental protection departments in the course of exercising their environmental protection responsibilities and recorded and stored in a given form.” In practice, certain forms of environmental information, such as information regarding EIAs or the disposal of hazardous waste, are difficult to obtain.</p>
Guideline 3: States should clearly define in their law the specific grounds on which a request for environmental information can be refused. The grounds for refusal are to be interpreted narrowly, taking into account the public interest served by disclosure.	<p style="background-color: red;">✘ Ineffective.</p> <p>The <i>Measures</i> state that information should not be disclosed if it may “endanger state security, public security, economic security and social stability.” These grounds for refusal are unspecific. In practice, many refusals do not cite this article in the <i>Measures</i>, suggesting that it has been interpreted broadly.</p>
Guideline 4: States should ensure that their competent public authorities regularly collect and update relevant environmental information, including information on environmental performance and compliance by operators of activities potentially affecting the environment. To that end, States should establish relevant systems to ensure an adequate flow of information about proposed and existing activities that may significantly affect the environment.	<p style="background-color: red;">✘ Ineffective.</p> <p>The flow of environmental information is inefficient and opaque. Enterprise environmental information is a particular problem, with rare instances of mandatory reporting for enterprises and little compliance with voluntary measures.</p>
Guideline 5: States should periodically prepare and	<p style="background-color: yellow;">≈ Would benefit from improvement.</p>

disseminate at reasonable intervals up-to-date information on the state of the environment, including information on its quality and on pressures affecting the environment.	Government departments produce annual reports on the environment, but these are often incomplete. Indicators and targets are vague and difficult to compare over time.
Guideline 6: In the event of an imminent threat of harm to human health or the environment, States should ensure that all information that would enable the public to take measures to prevent such harm is disseminated immediately.	<b>* Ineffective.</b> In the event of environmental emergencies, access to information is still commonly barred.
Guideline 7: States should provide means for and encourage effective capacity-building, both among public authorities and the public, to facilitate effective access to environmental information.	<b>* Ineffective.</b> Supervision capacity among the public and the authorities, and the enforcement of existing regulations, are major problems. However, these shortcomings have not been sufficiently acknowledged and little has been done to address the implementation gap.
<b>Legend:</b> Scores based on research by the SPS, as well as secondary literature.	<b>* Ineffective.</b> China does not have relevant policy requirements or has not effectively implemented regulations that meet the guideline.
	<b>≈ Would benefit from improvement.</b> China's policies provide for partial or occasional implementation of the guideline.
	<b>✓ Effective.</b> China has adequate regulations or policy in place, with effective implementation.

#### 4. RESPONDING TO ENVIRONMENTAL INCIDENTS

##### 4.1. Introducing emergency response

Environmental incidents are regrettably common in China and government responses to environmental incidents underscore the need for transparency and public participation. If poorly handled, such incidents can do lasting damage to public trust in government. If properly managed, legal and orderly public participation can help to support effective government action to remedy environmental problems and reduce public alarm and rumour. Moments of environmental crisis can be highly charged with public emotion and are subject to intense public and media scrutiny. Thus they have an enormous impact on public perceptions of official conduct, shaping lasting views on governmental competence and transparency.

It is therefore a mistake for environmental officials to shut down channels of public communication in an environmental emergency. Failing to communicate bad environmental news is bad public policy with long-term consequences and should be avoided at all costs. In an age of broadly distributed media power, attempts to “manage” public opinion through partial, incomplete, or misleading information will fail. Worse, such attempts will inflame public outrage and foster rumour and speculation.

Official misinformation and lack of information are often reversed or corrected only after the damage to public trust and official credibility has been done. As the case study below from the United States demonstrates, officials should release all information quickly, provided they are confident that it is accurate. Similarly, rushing to release falsely optimistic information or temporarily refusing to release crucial information undermines public confidence in official credibility and competence. In an age of citizen science and social media, accurate information from other sources can expose official misinformation and undermine governmental credibility, just when trust is needed most.

#### **BOX 9: THE DEEPWATER HORIZON SPILL**

The blowout of BP's Macondo well on April 20, 2010, which triggered the Deepwater Horizon oil spill, caused crude oil to gush from the floor of the Gulf of Mexico for 87 days. The disaster was a colossal environmental catastrophe — the largest offshore oil spill in history — and as responders struggled to staunch the flow of oil, the grim spectacle triggered a deep loss of public trust in both industry operations and government oversight.

This loss of public confidence was compounded by serious communications errors committed by federal authorities. The Federal On-Scene Coordinator consistently downplayed the size of the spill. Official estimates were gradually raised to 10 times the original estimate. In all, some 4.9 million barrels of oil leaked from the seabed before the broken well was capped on July 15, 2010. Independent scientists, using a small amount of publicly available flow data, generated more accurate estimates that called into question the official accounts. These unofficial estimates were widely disseminated by news media and social media, but the oil company BP attempted to dismiss their work. The combination of inaccurate official estimates and dismissive treatment of good-faith third-party estimates led to a breakdown of public trust.

Despite their mistakes, the responders did many things right in their approach to communications. They set up a “Common Operating Picture (COP)”, digital tools that tracked every aspect of the response, with thousands of data layers, and posted a version of it at the website [GeoPlatform.gov](http://GeoPlatform.gov), to give direct public access to response status information. However, the communications measures they got right were negated by what they got wrong. Key facts were mangled, and with them, official credibility. A clear lesson from the incident is that officials should not withhold information arbitrarily, or release falsely optimistic information, as the US Coast Guard did, undermining public confidence in their credibility and competence.

## 4.2. Whistle-blowing

In the context of environmental controversies, especially where there have been failures in the information management system, it is inevitable that so-called whistle-blowers emerge from time to time, claiming to have information about environmental hazards and/or alleged public or private improprieties. Since it is impossible to determine at the outset which of them may be exposing authentic impropriety and which may be mistaken, misguided or malicious, all must be protected from official or unofficial retribution, and all of their allegations must be seriously investigated and evaluated.

### **BOX 10: MILLSTONE 2**

In the mid-1990s, an engineer at the Millstone 2 nuclear power station in the US state of Connecticut became disturbed by what he regarded as the plant's unsafe maintenance practices. The engineer, George Galatis, noted that spent fuel rods from the reactor core were being stored indefinitely – in violation of US Nuclear Regulatory Commission (NRC) regulations – in the spent fuel cooling pool outside the containment vessel. If the pool was ever drained of its water by an earthquake or malfunction, Galatis calculated that the result would be a significant and dangerous release of radioactive steam outside of containment.

Galatis brought his concerns to plant management and was rebuffed for purportedly exaggerating risks. Galatis took his concerns to the NRC and was rebuffed again, by inspectors whom Galatis believed had close ties to the power plant's management. Finally, Galatis sought formal whistle-blower protection under US government statutes, and contacted the Union of Concerned Scientists, an NGO that took his concerns to the media. Special Policy Study expert Eric Pooley was then a reporter for *Time* magazine and investigated Galatis' claims for a 1996 cover story. The story triggered an NRC investigation that uncovered multiple safety violations and led to the permanent closure of the Millstone 2 plant. Since then, federal whistle-blower protections in the United States have been strengthened. Today, it is likely that allegations such as Galatis' would be widely aired via social media, before becoming fodder for traditional news outlets, which is all the more reason for authorities to put in place protection measures and fairly evaluate whistle-blower allegations.

In developed nations, government and corporate officials alike tend to be hostile to whistle-blowers, but these whistle-blowers often serve the greater social good. For this reason, official procedures must be put in place to ensure that whistle-blowers are protected from retribution and given the benefit of the doubt. For example, protection for whistle-blowers is accepted as an important part of environmental decision-making in

Sweden. The Swedish Public Access to Information and Secrecy Act is designed to permit government officials to leak otherwise secret information. With certain specific exceptions, such as protection of another person's integrity or state security, the law permits an official to read from a secret document to another person, if the purpose is to publish the information. Journalists have no right to reveal the source of the anonymous information. Only the informant or the court can revoke the confidentiality between a media outlet and a source.

#### **BOX 11: THE BOHAI GULF SPILL**

On 21 June 2011, users of the Sina Weibo microblogging service read this short post: "Two wells at a Bohai oil field have been leaking for two days. I hope the leaks are controlled and pollution prevented." It was then just a rumour, but it turned out to be true. It was likely written by a whistleblower at China National Offshore Oil Corp (CNOOC), the state-owned Chinese company that forms half of a joint venture with ConocoPhillips at an oilfield (Penglai 19-3) in the Bohai Sea, off China's northeastern coast. In the end, the size of the oil spill officially reached about 2,500 barrels, polluting around 4,250 square kilometres of seawater. However, despite an increasing volume of concern both online and in the traditional media, the State Oceanic Administration (SOA) did not confirm the leak until an entire month later – a secretive response which led to a serious loss in public trust.

However, decision-makers learned an important lesson from their initial response. On July 12, another small oil leak occurred at a different CNOOC field in the Bohai Gulf. This time, SOA announced the news within 12 hours. Even more significantly, on July 13, SOA ordered the field to halt operations and required that information on the leak be made public: the first time a government department had urged a polluting company to disclose information on an incident of this kind. This was a breakthrough for transparency and was widely praised.

## **5. POLICY RECOMMENDATIONS**

### **5.1. Strengthen legal and orderly public participation in environmental fields as an important basis for promoting Ecological Civilization, building a 'Beautiful China,' and bringing benefit to the Chinese people.**

Legal and orderly public participation is an important basis for higher quality, sustainable decision-making. It will help to address the loss of trust between citizens and government, foster social peace, especially regarding potentially controversial planning

and development decisions, and ultimately, improve green development and build an Ecological Civilization.

Access to information is essential for effective public participation. In an era of rising citizen concern, more complex environmental issues and proliferating sources of digital information, creation of a sustainable strategy for open environmental information is a complex task. It will be most successful if it is carried out as a joint enterprise between people and government, in which the benefits of social media concepts such as crowd-sourcing, two-way information flows and citizen science are harvested for improving sustainable development potential.

Therefore, in order to promote public participation in China's sustainable development, this Special Policy Study recommends the following measures:

**5.1.1.** Government officials at all levels should be encouraged to recognise that full, early and effective public participation can help promote green development with better quality decisions and greater societal acceptance. Government should proactively seek participation in a more transparent manner, including during the planning phase for industrial projects, the setting of national and local economic development plans, and through the promulgation of environmentally relevant laws and policies. These steps will ensure that concerned citizens have adequate opportunities to express their views. Mechanisms for handling complaints from the public should be improved.

Methods of public participation might include public hearings, citizen juries, focus groups, publicly-accessible displays, and opinion surveys. Government should recognise that participation in the early, scoping-stage is especially important for sound and efficient environmental decision-making with less social conflict. It is also much less costly than having to stop, redesign, or relocate a project at a later design stage. This approach demands a new ethos among officials charged with achieving sustainable development, and should be enforced by administrative and legal sanctions in cases where officials fail to adequately seek public participation.

**5.1.2.** Citizens should play a substantive role in creating a sustainable Ecological Civilization by taking part in the collection and monitoring of environmental information. Government should harness the potential of citizen science and crowd sourcing as potentially high-quality and cost-effective methods of data collection that improve policy

implementation, increase public trust, enhance social inclusion, improve environmental education, reduce the spread of false information, and advance citizen supervision of sustainable development. In an era of information sharing and widely proliferated geographic and computing technologies, Chinese citizens can no longer be expected simply to consume expert-produced information, but should be actively involved in its production. This effort could be advanced by building upon successful local government and NGO pilot schemes. For example, in the field of solid waste management and treatment, citizens could submit data and information about solid waste issues via websites and smart-phone applications. This info would then be compiled for use in open online maps and other digital tracking tools that would enable greater citizen participation and public supervision.

**5.1.3.** Government should take steps to strengthen citizens' overall understanding of public participation and promote responsible public environmental behaviour. While upholding the public's environmental rights, the government should create an open information system in which accurate information can flourish and promote plentiful forms of public participation, including positive environmental behaviour to foster active participation in a green societal transformation through green consumption, sustainable travel, and environmentally friendly lifestyle choices.

**5.1.4.** Public participation can benefit from the establishment of an effective, long-term, and reliable institutional mechanism that allows effective public opinion solicitation and the widest possible incorporation of expert opinion, including opinion from beyond the narrow scientific and technical community. Today, there are clear inadequacies and deficiencies in the current institutional arrangements for environmental decision-making. For example, the MEP currently has two advisory committees on environmental decision-making, both with a very narrow constituency in the scientific and technological expert community: the National Environmental Advisory Commission, chaired by the MEP Minister, with membership consisting of the most senior and most well-established scholars, and the MEP's Science and Technology Committee, chaired by a Vice-Minister. The pool of experts staffing these two bodies is too limited to deal effectively with environmental problems that are positioned within broader social problems. We recognise this and recommend the establishment of a Committee for Environmental Communication and Public Participation as the appropriate institutional mechanism for broadening the expertise base of environmental decision-making.

Members of the Committee should include scientists, social scientists, technical experts, NGO members, and members of the public. The principles of fairness, public interest, and openness should guide the selection of Committee members, so as to ensure the inclusion of individuals who can truly provide quality advice on environmental decision-making.

**5.2. Promote and develop open environmental information systems; consolidate and improve information management capabilities of central and local government and enterprises, and effectively implement open information legislation.**

Open, extensive, detailed and accurate environmental information provide an essential foundation for effective public participation and for sound and sustainable policy outcomes. Since 2008, China has made great strides in information provision, but policies and regulations are unevenly implemented across different provinces, regions and municipalities, and throughout different departments and ministries of the central government. Despite the regulations, many enterprises and local governments still do not pay enough attention to the citizen's right to know. Where access to information is blocked, where information is unreliable, or where its release is unnecessarily delayed, public trust is undermined, rumours flourish, policies are poor, the risk of social conflict grows, and the central role of the public in constructing an ecological civilization is eroded.

The principles agreed in the 1992 UN Conference on Environment and Development (and elaborated in the UNEP Bali Guidelines of 2010) represent the international consensus on public participation in environmental matters and the importance of information disclosure as a basis for such participation. The Dublin Statement of 2013, originating from the Eye on Earth Network of the European Environmental Agency, represents leading edge international expert opinions on open information and citizen science, which China can harness in its new efforts to build an Ecological Civilization. The Special Policy Study recommends the following measures:

**5.2.1.** Government should more fully implement the information provisions set out in existing legislation and guidelines, such as the *Regulations of the People's Republic of China on Open Government Information* (2008) and the *Measures on Open Environmental Information* (2008). It is a means for facilitating both the proactive publication of environmental information and for opening public access on request to

information that is not proactively published. Government should mandate a presumption in favour of open and timely access to information, subject to clearly defined and limited reservations, for instance in respect to commercial confidentiality. This will require a new culture of transparency among officials, enforced by administrative and legal sanctions where officials fail to respond appropriately.

To aid the public supervision of this measure, government should ensure that any citizen, who considers that a request for environmental information has been unreasonably refused or in any other way not handled in accordance with the law, can challenge this decision through a review procedure before a court of law or another independent body.

**5.2.2.** Government should demonstrate its commitment to international standards of access to environmental information by passing Chinese legislation to more fully implement the Rio Declaration principles and elaborated in the Bali Guidelines. Government should formally recognise that the provision of timely and reliable information leads to better policy outcomes and enhanced public consent and should use these UN-agreed principles as the basis for its new approach.

**5.2.3.** Government should establish a national environmental information system, in which data and information are: collected once and shared many times; managed responsibly at source; readily available to fulfil reporting obligations; easily accessible for users, including citizens, and preferably in real time; usable for comparisons at the appropriate geographical scale to support citizen participation; and made more valuable to users by investment in common standards and interoperable systems.

Enterprises, departments, bureaus, and even pilot citizen science schemes that collect environmental information from the public should be required to submit environmental information to a single, national information system. Information and data will then be shared for compiling pollution inventories (see recommendation [5.2.4]), for assessing the state of the environment, and for enforcing and supervising environmental regulations at central and local levels by citizens and government. This national environmental system will improve the quality of existing information services of all central and local government departments and bureaus relevant to the environment, including the National Bureau of Statistics, the Environmental Protection Bureaus, the Ministry of Environmental Protection, the Ministry of Water Resources and others. It will also have a positive educational impact on officials and the public.

**5.2.4.** Government should improve the monitoring and public availability of environmental data through the adoption of an inventory of pollution from industrial sites and other sources. We welcome MEP's introduction in March 2013 of a Pollution Release and Transfer Registry (PRTR) system (as detailed at [www.prtr.net](http://www.prtr.net)). This is a coherent, nationwide system of pollution inventories on a structured, online and publicly accessible database, under the *Measures for the Hazardous Chemical Management and Registry*. However, the regulated hazardous chemical inventory has not yet been published and there is as yet no unified platform on which the public can access information on these pollutants. We recommend that the government publish the regulated chemicals list and disclose the registered chemical information to the public through an open online platform. Using the example of hazardous chemicals as a pilot, the government should standardize the reporting and public disclosure of all hazardous chemicals based on the PRTR system. The government should adopt this PRTR model of mandatory annual reporting, and support it with effective, independent auditing. This would help reduce pollution and help businesses, particularly in the chemical industry, improve their environmental performance and contribute positively to their "social license to operate," thereby allaying public fears, rebuilding trust, and advancing sustainable development.

**5.3. Create a comprehensive environmental communications strategy to include the accelerated introduction of national environmental education legislation, in order to raise environmental awareness and promote environmental participation across all sectors of society.**

Accurate, effective and responsive government communication is a necessary aspect of sustainable environmental decision-making, but government at present lacks a proactive, national environmental communications strategy. In the absence of such a strategy, the response of central and local governments has been reactive and inadequate, undermining the building of trust between the public and government. Furthermore, the level of the public's environmental awareness and scientific understanding can negatively affect the quality of public participation. To encourage more active government environmental communication and to foster a more informed public, the Special Policy Study recommends:

**5.3.1.** To enhance public environmental awareness and environmental protection, government should develop national strategies for communication in the following areas:

communications on key environmental issues related to the government's annual and Five Year plans, such as measures to control air, soil and water pollution control. Government should also develop comprehensive national communications strategies, to be implemented on such key topics of public concern as haze pollution, groundwater pollution and nuclear energy. This would emphasize and encourage public participation, help create better access to information, build trust between people and government, and be implemented by government departments at all levels.

**5.3.2.** Further research should be conducted on the design and effect of environmental education laws elsewhere, including but not limited to, Taiwan, the United States, Japan, Brazil and South Korea. For example, the Environmental Education Act in Taiwan requires high school staff and students, staff and leaders of government branches at all levels, and employees of state-run enterprises, to take four hours of environment-education classes each year. Building on not only international experience but also successful pilots at the local level in China, such as those in Ningxia Province and Tianjin Municipality, the State Council Legislative Affairs office should accelerate the introduction of a national environmental education law to address the needs of urban and rural citizens, officials at all levels of government, and managers in private and public enterprises, where environmental education should be linked to strict corporate social responsibility practices.

**5.3.3.** Environmental communication and education are currently under-resourced and inefficient. The government should optimize and integrate resources to improve environmental communication and environmental education, and to establish a unified, government agency to deal with these issues.

**5.3.4.** Beyond the formal education system, environmental education should involve new and traditional media, mass organisations and community-level communication channels, including those at the neighborhood and village level. Environmental education should support: consumers to make responsible, informed, and sustainable consumption choices; urban and rural citizens to supervise environmental protection and to build Ecological Civilization through responsible environmental behaviour; enterprises to pursue green development; and officials, especially at the municipal and other local levels, to make more sustainable decisions, to encourage and support public participation, and to work effectively in constructing an Ecological Civilization.

**5.4. Improve the implementation of existing laws, regulations and policies on public participation in planning. Reform and introduce new laws, regulations and guidelines to improve public participation where necessary.**

Constructing an Ecological Civilization requires the rigorous enforcement of existing planning laws and, where necessary, the reform of laws pertaining to public participation in environmental decision-making. To improve policy quality and implementation, to rebuild trust between the people and the government, and to avert a deepening social crisis, this Special Policy Study recommends the following steps:

**5.4.1.** The *Environmental Impact Assessment Law* (2002) at present requires the publication only of abridged reports. Government should mandate full public disclosure of Environmental Impact Assessments (EIAs). In the context of rapid urbanization and an increasingly informed public concerned about the impacts of new developments on health and the environment, there is an urgent need to reform urban planning guidelines to enhance and expand legal and orderly public participation and to develop trust in the integrity and quality of environmental impact assessments. Online public disclosure of EIAs in their entirety, as is common practice in Europe and the USA, subject to limited restrictions for commercial confidentiality, is essential to secure public trust in new developments through open discussion and debate, and to raise the quality of project designs and EIAs. In addition, disclosure of all other relevant information, such as feasibility investigations, social-stability risk assessments, and approval documents, should also be mandated through relevant legislative reform.

**5.4.2.** Government should reform the EIA system to mandate early and more comprehensive participation of stakeholders in the EIA process. The *Environmental Impact Assessment Law* (2002), the *Administrative Licensing Law* (2003) and the Ministry of Environmental Protection's *Interim Measures on Public Participation in the EIA Process* (2006) provide legal channels for public consultation on new development projects, including industrial development, through such methods as public hearings, surveys, expert consultations and seminars. At present, however, the solicitation of public opinion comes only after a project design is finalized and an EIA completed, though before it is submitted for official approval. This is too late for effective participation. It fails to capture the capacity of stakeholders to improve project design, and can raise the risk of conflict and project failure. To improve project design, public acceptability and sustainable development and decision-making, government should establish a mechanism

for stakeholder and public consultation in the conception and planning stages of development, public works, and infrastructure projects. This will improve the project quality and the legitimacy of decisions, thus enhancing social harmony. Government should strengthen transparency in the participation process and provide a clear, robust, independent appeal mechanism, supported by law, to guarantee affected citizens unimpeded access to legal remedies.

**5.4.3.** Government should introduce or reform relevant laws to ensure that public participation mechanisms include the participation of recognised environmental NGOs. Government should simplify the registration process for environmental NGOs and should encourage the growth and development of independent NGOs and think-tanks, recognizing their important role in promoting public participation and fostering constructive, two-way dialogue between people and government, thereby reducing the incidence of social conflict.

**5.5. Adapt government communications to the new media context; promote an open media system suited to the challenge of green development, with support for environmental reporting and enhanced two-way online communication between government and the public.**

New media have become the main channels for the public to express, participate, and supervise environmental issues. It is important for government to understand the importance of new media in the disclosure and dissemination of environmental information and in environmental communications. An informed and networked public increasingly challenges closed models of environmental decision-making and communication, where decisions are made by government and supported only by experts. If projects are to gain public acceptance, government agencies must communicate with the public and clearly demonstrate how citizens have been actively involved in decision-making. Government agencies at all levels should pay more attention to the roles of different media—mainstream and new media, online and offline—to disseminate environmental information more effectively. Social media are now particularly important in both the gathering and the provision of information in China. The Special Policy Study recommends government agencies should embrace two-way communication with the public on the Internet, and recommends the following measures:

**5.5.1.** Government should create strategies for more effective communication using new media, including social media, to disseminate information, learn from the public, and facilitate public participation in environmental decision-making. It should build upon both international experiences and the specific characteristics of the Chinese media environment. These strategies must acknowledge today's diverse information culture, in which information is widely shared across networks of users on the Internet and social media, and that the uni-directional model of information used by government agencies is no longer effective or sufficient. These strategies could include the pilot use of webforums for structured online participation around the planning and construction of controversial projects, where the systematic analysis of public feedback could inform policy recommendations, and thereby enhance public input to environmental decision-making.

**5.5.2.** Government should make full use of microblogs and other new media technologies for open, detailed, and accurate real-time environmental information disclosure. Government officials at all levels should also recognise new media as an important vehicle to gather public opinion for environmental decisions, improving decision-making in environmental protection overall. Furthermore, government should encourage the public to use new media as a means to play an important role in collecting, monitoring, reporting and supervising environmental information according to law.

**5.5.3.** The government should give full play to the media (including social media) to advance citizens' legal rights and interests in the process of information disclosure and public participation, thus fostering a media context in which accurate and responsible information flourishes and social conflict is diminished.

## **5.6. Improve environmental incident response mechanisms.**

Poorly handled environmental accidents can do lasting damage to public trust in government. When properly managed, public participation can support effective government action and reduce public alarm and rumour. Honest, transparent and effective handling of information in environmental accidents is essential to the restoration of public trust. The Special Policy Study recommends that government adopt the following suggestions:

**5.6.1.** Government, when tasked with informing the public of the known facts of an environmental accident or emergency, should create a Common Operating Picture. This must include: information provided for traditional and new media audiences, including regular press briefings and daily incident reports published online; and a standard set of online digital tools for citizens to track and learn about all aspects of the crisis and its response. Government should engage honestly with the public and promote transparency in its procedures. All relevant information on risks to the public should be disclosed. The government should brief thought leaders and trusted intermediaries, including NGOs and other stakeholders, mainstream and new media, as early as possible to enable them to inform the public throughout the crisis.

**5.6.2.** Government should regard social media channels not only as tools for disseminating the known facts of an environmental crisis, but also as tools for citizens to inform government departments about an emergency. Government should recognise that an involved, alert and adaptive public, networked through social media, can improve the effectiveness of emergency response through bottom-up, positive participation.

**5.6.3.** Government should create a series of Crisis Communications Handbooks for government officials at every level, for stakeholders, for media, and for communities to help them recognise and respond to a variety of crisis types. This includes specific environmental incidents, such as nuclear radiation leaks, coastal oil spills, heavy metal soil and water pollution incidents, or severe air pollution. Officials should be equipped with appropriate and time-tested communications tools for traditional and new media contexts; the media should be encouraged to adopt best practices for emergency reporting; stakeholders should be offered advice on responsible and effective communications in an environmental emergency; and communities should be educated on how an environmentally aware and informed public can help to protect the environment in an emergency, and help to ensure the public's environmental rights.

**5.6.4.** Government should introduce robust regulations to encourage and protect whistleblowers, and to ensure early reporting of environmental problems, accidents and emergencies. Such regulations are necessary to reduce the environmental damage that decreases public trust and to strengthen a responsive and effective environmental monitoring, information and media system. These regulations should not override existing legal protections against fraudulent claims, false information or leaking of state

secrets, but should provide robust protection for genuine whistle-blowers against special interests.

**5.6.5.** This SPS has considered environmental incidents, such as chemical spills, and social incidents, such as protests related to planning and environmental decision-making. Both environmental and social incidents, when poorly handled, can do lasting damage to public trust in government, restricting the progress of China's green transition. All require transparency from government and rapid, responsible and effective communications. Early stage public participation and interactive communication can mitigate the risk of protest and build public trust and greater public acceptance in the planning of controversial projects, such as PX and nuclear projects. In such cases, the government should also ensure the full disclosure of all feasibility studies, risk assessments and other relevant documents. Public opinion should be fully consulted and the public interests fully considered. All means of public participation should be adopted to consult stakeholders, share information and enhance project design.

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