

China India Dialogue

The Role of Civil Society Fighting Water Pollution in China

Abstract

Pollution of fresh water resources can impact Water pollution is an ongoing issue in China. In order to solve the water pollution issues in Zhejiang province, environmental NGO Green Zhejiang establishes the platforms and mechanisms to allow multi-stakeholders such as governmental departments, general public, media and NGOs to participate in water protection. This article discusses the importance of citizen's roles in tackling water pollution in China with the multi-stakeholder's approach implemented by Green Zhejiang.

Keywords: Green Zhejiang – stakeholders – participation – governments – media – public – education – water protection

Author



Xin Hao

Xin Hao is the co-founder and executive director of Green Zhejiang, the first and largest environmental NGO in Zhejiang China, which is dedicated to environmental protection and education for sustainable development. During these years, he has developed an interactive collaborative pollution map, promoted the idea of “citizen river chiefs” policy, and launched various educational programs such as “River Angels”, Earth Successor program, beach cleaning network etc. With his efforts, Xin Hao has been honored by receiving the Youth Elite Medal of China, the China Ecological Civilization Award, the China National Mother River Award, and the Golden Medal of China for Voluntary Service.

The Role of Civil Society Fighting Water Pollution in China

|| Xin Hao

In the 1990s, with the industrialization and rapid economic development in China, the environmental resources suffered a severe damage, including water pollution (Yang et al., 2012). In the mid 1990s, these environmental issues began to draw media attention and were frequently reported. In 1998, China Quarterly mentioned about the special issues on China's environment in order to warn the government and public about the critical environmental situation (Edmonds, 1998). In 2006, a Chinese NGO, IPE published the China Pollution Map and it had attracted the global concern about the environmental issues in China (Otsuka & Cheng, 2020). In 2013, China's government officially acknowledged the severe problem of pollution and began to prioritize environmental governance as a response to public concerns. (Gao & Teets, 2020)

Zhejiang is a coastal province in China, and it has suffered serious water pollution. In July 2004, there was an outbreak of blue algae, which interfered with the entire Qiantang River and all its tributaries, seriously influencing drinking water security (Li, R.H. et al., 2015). According to the environmental situation report of Zhejiang in 2009, only 64.4% of the water meets the requirements for their designated surface water functions. Most of

the main pollutants were total phosphorus (TP), ammonia nitrate (AN), CODMn and BOD5, and it has caused a high degree of eutrophication in the rivers. (Economy, 2014)

Due to the frequent occurrence of water pollution in Zhejiang, an environmental NGO called Green Zhejiang is determined to contribute to water protection. The goal of Green Zhejiang is to promote environmental education and ecological remediation in Zhejiang. During these years, Green Zhejiang experienced different phases of transformation in looking for the role in the environmental conservation field. Green Zhejiang first formed a small group, then formed a cross-sector interaction and finally became a platform for multi-stakeholder's engagement.

Multi-stakeholder's engagement

With the multi-stakeholder's engagement approach, Green Zhejiang was able to achieve a more efficient plan in controlling the water pollution. Green Zhejiang developed an interactive collaborative map to visually illustrate the pollution sites. The general public can use the platform provided by Green Zhejiang to report the pollution they notice. Until now, Green Zhejiang has collected over 670 cases of pollution incidents through the

report from citizens and successfully solved 95% of the reported cases since 2011. In order to cultivate every citizen to be a good local environmental observer, we provide the guidance of water monitoring. After attending the programs, people can monitor the water quality of the river in their community by using some simple equipment prepared by Green Zhejiang. Green Zhejiang has framed water governance as an important policy issue by mass mobilizing citizens to report water pollution in their hometowns. Furthermore, Green Zhejiang assists the provincial government by providing necessary information in order to supervise its subordinates' implementation of environmental policy. Green Zhejiang was able to draw the support from the provincial authority to hold the local government accountable to the public.

Moreover, Green Zhejiang cooperates with a television channel of Zhejiang to make a TV series related to the current water pollution situation. Through the series, Green Zhejiang has reported 136 issues related to water pollution and had eventually promoted water governance to the top priority of the Zhejiang provincial government by 2014. Through the report by the media in Zhejiang province, Green Zhejiang has more opportunities to promote environmental education on water pollution issues to the public and to attract the public's attention in conserving the river. For example, Green Zhejiang has organized many activities, such as painting the wall along the Qiantang riversides, swimming across Qiantang river to attract public concern on the health of this largest river in their hometown.

In order to address water pollution effectively, communication between multi-stakeholders including governmental departments, experts, the general public, responsible party, media and NGO is required. Green Zhejiang organizes roundtable meetings regularly with these stakeholders to discuss current issues regarding the water pollution and deal with various aspects of water quality management. In roundtable meetings, Green Zhejiang acts as the role of problem investigator, multi-stakeholder's connector and solution supervisor. Green Zhejiang achieved some outcomes in tackling the water pollution through the meetings and the rivers in Zhejiang are getting cleaner visibly. In recent years, under the special hydrological and tidal conditions of the Qiantang River, some finless porpoises appeared in the intertidal zone of Qiantang river, and the incidents such as accidental porpoises capture, porpoises stranding and porpoises death have been encountered on the river bank. Therefore, Green Zhejiang organized the finless porpoises protection program in 2020 and invited entrepreneurs, social organizations, universities and scientific research units participating in this program to contribute to Zhejiang's aquatic wildlife protection. This program plays an important role in raising the society's awareness of the importance of aquatic ecological environment protection.

Due to the efforts, Green Zhejiang has successfully transitioned from traditional management to multiple stakeholder governance. Compared with the traditional model which involved only the Environmental Protection Bureau and polluters, the new model intends to connect all the

stakeholders from various fields of media, educational institutions, experts, cultural and sport organizations, and lawyers. The multiple stakeholder governance allows environmental NGOs to promote a model of more inclusive environmental governance after the provincial government declared water governance as a high-priority key task.

Platform and Mechanism Establishment

Over the years, Green Zhejiang has established many platforms and launched leadership mechanisms with the resources from multi-stakeholders to cultivate the motivation of youth in protecting water resources. Until now, Green Zhejiang has organized many programs with platforms such as River Chiefs, Pollution Watch volunteer groups, Green College students Alliance, H2O Partners and River Angels Project. The middle school, high school and university students in Hangzhou are actively participating in these programs.

River Angels Project

River Angels project is a youth river protection program focused on primary and middle school students. In this program, every group of students have to select a river section in Zhejiang and they are appointed as the “River Angels” of that river section. The River Angels program unites international organizations, academic institutions, governmental departments, non-profit organizations and schools to provide better resources and proposals.

As of now, over 100 primary schools and middle schools have joined the River

Angels program, covering a student population of over 70,000 in Zhejiang. The goals of the River Angels project are to establish a multi-disciplinary curriculum system, link multiple stakeholders to social governance and promote a replicable youth educational sustainable development model. River Angels project consists of four main modules which are action, public education, research, and innovation. There are five levels combined with modules that students need to achieve which are “know water and rivers”, “being a volunteer”, “becoming a River Angel”, “becoming an environmental advocator” and “becoming an Earth Successor”. In this program, students take the regular action to protect the river they are responsible for. The students patrol the rivers regularly, clean up the garbage and invasive species, and monitor the water quality. In order to attract the public's attention, Green Zhejiang organizes different types of activities by linking with the water protection such as “Water Stories of the Ancient City Gates”, a water interpretation competition and inviting some celebrities and experts to become the advisors of the program. Green Zhejiang also encourages students to use music, speeches, photos, paintings, texts to promote public awareness of the importance of water resources as well as to improve their listening, speaking, reading and writing skills.

Apart from the solving ability, Green Zhejiang also wants to cultivate the innovative thinking of students. Green Zhejiang encourages students to conduct in-depth thinking and research on natural and social science issues related to the river. Green Zhejiang organizes study

tours and invention competitions every year to stimulate the students' thinking and discover their innovative potential, and organizes mock courts on environmental pollution issues to engage students in public interest lawsuits in order to provide opportunities for students to deal with the environmental issues. During the H2O Global River Cities Summit organized in 2018, over 700 River Angles had conversations with 10 mayors regarding the water pollution issues.

As more schools became involved in the River Angles program, a network of River Angels schools was established. Green Zhejiang organizes the "One Qiantang River" program every year with the Zhejiang Qiantang River Administration to strengthen the linkage of schools across Qiantang River. This program widely promotes the concept of sustainable development of Qiantang River and provides a platform for young people to learn about their hometown culture and participate in river protection. The activities held in this program include river wall painting, scientific research, popularization of science and essay competition. Through the cooperation with related stakeholders, Green Zhejiang successfully develops the River Angles course and forms a problem based learning (PBL) and STEAM curriculum system. The "Earth Successor", a program derived from the River Angles program has become a famous brand of study tours and attracted more than 10,000 students to participate in.

As a conclusion, through the participation of the stakeholders, we can see a significant improvement in the water quality of Zhejiang's river during these recent

years. It shows the important consultative role of citizens in the environmental governance in China. As an educational NGO, Green Zhejiang intentionally adopted the strategy of "growing by participation" by collaborating with government and media to promote education for environmental protection. We believe that the engagement of multi-stakeholders will bring more possibilities in tackling water pollution.

REFERENCES

- Edmonds, R. L. (1998). Studies on China's environment. *China Quarterly*, 156, 725-732.
- Gao, X., Teets, J. (2020). Civil society organizations in China: Navigating the local government for more inclusive environmental governance. *China Information*.
<https://doi/10.1177/0920203X20908118>
- Otsuka, K. & Cheng, F.T. (2020). Embryonic forms of private environmental governance in Northeast Asia. *The Pacific Review*.
<https://doi.org/10.1080/09512748.2020.1811372>
- Yang, H., Zhang, Z., Shi, M. (2012). The impact of China's economic growth on its water. In H. McKay & L. Song (Ed.), *Rebalancing and Sustaining Growth in China* (pp. 309-328). ANU Press.
- Li, R.H., Shi, Y.B., Yao, K.H., Zhao, K. (2015). *Qiantangjiang kekou lanzao baofa zhuyao youfa yinsu yanjiu* [Study on the main inducing factors of blue

algae outbreak in the Qiantang River Estuary]. Proceedings of the 2015 Annual Conference of the Chinese Society for Environmental Sciences, 2, 105-112.

Economy, E. (2014). Environmental Governance in China: State Control to

Crisis Management. *Daedalus*, 143(2), 184-197. <http://www.jstor.org/stable/43297326>