



RELEASING STURGEON AT THREE GORGES PROJECT: THE IMPORTANCE OF COMMUNICATIONS AND RAISING PUBLIC AWARENESS OF HYDRAULIC AND HYDROPOWER ENGINEERING

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ABSTRACT

Decision-makers behind and the builders of Three Gorges Project (TGP), the world's biggest hydropower project, have since day one attached great importance to the balance between the construction and human development when considering this project, even incorporating the protection of biological diversity into the project itself. The decision-makers and builders have also utilized extensive social mobilization and participation and leveraged mass communications to inform the public of their commitment to the harmony between humans and water behind the project. Such initiatives have enriched the image of the TPG and boosted public endorsement of the project. The release of Chinese sturgeons, initiated by China Three Gorges Corporation (CTG), the owner of TGP, is one of such initiatives.

By creating media events that connect the project to members of the public, the release initiative provides information, transmits CTG's values and shapes awareness image, morphing into a branding event for CTG that helps showcase its commitments to and efforts in ecological protection and biological diversity. The initiative provides a new way of thinking and practice to bolster public awareness of reservoirs and dams.

Key Words : *Three Gorges Project, Release and Dissemination of Chinese Sturgeon, Public Awareness*

As important means to manage unbalanced water resources, mega-size hydraulic and hydropower facilities have always garnered widespread attention from people from all walks of life, and have been subject to both positive and negative perceptions. These mixed perceptions are the result of two factors. First is the large-scale comprehensive benefit brought about by such facilities, including flood control, navigation, impoundment, power generation, and tourism, etc. Second are changes to the ecology, social conditions and public mindset that such huge human-made projects produce can lead to doubts, suspicion, criticism and even opposition from the public.

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PART I : INTRODUCTION: THE RELEASE OF CHINESE STURGEONS¹

As the largest hydraulic and hydro project, TGP stands on the third largest river in the world, The Yangtze River. In 1988, before it was built, the Gezhouba Project had already been completed. The Gezhouba Project was the first large scale hydraulic complex in the trunk of The Yangtze River, the construction of which was going to obstruct the

1. The Chinese sturgeon is a species of sturgeon that lived at the same time as the dinosaurs, about 140 million years ago in the upper cretaceous period. This species is mainly distributed in the southeast coast of China and the Yangtze River, so it is called the Chinese sturgeon.

channel for Chinese sturgeons - the largest fish in this river - impeding migrate and reproduction. To tackle the problem, constructors in 1982 established the Chinese Sturgeon Research Institute. As the first scientific research and protection institute for the rare fish because of building of a large hydraulic project in China, it shows that the Chinese government emphasizes biological diversity protection as a crucial component of the project's construction and had taken proactive countermeasures.

In 1984, the first release of Chinese sturgeon took place in The Yangtze River. To date, 61 releases have taken place, releasing over 500 million sturgeons into the river. The total fund for scientific research and protection since 2009 has amounted to more than US\$50 million.

In 1997, The Yangtze River was closed for diversion 38 kilometers upstream of the Gezhouba Project, which made protecting the Chinese sturgeon more pressing. CTG, as the owner of the Gezhouba Project, and TGP, enhanced media coverage of and public participation in the release program, thereby turning a very narrow engineering and technical activity into a headline-grabbing mass communications social event. Two examples illustrate this process:

CASE 1: Turning the release into a public event across the whole basin

In April of 2016, under the theme “*The Chinese Sturgeon & Us, Protecting the Yangtze River*”, activities were held for the release and protection of Chinese sturgeons in Yichang city in Hubei Province, where TGP is located, and in another eight cities along the middle and lower reach of The Yangtze River.

The activities focused on protecting, tracking, and drawing sturgeons and garnered a high participation rate. The activities in nine major cities along the 1,300 km-long Yangtze River saw the participation of scientific researchers, citizens, college students, volunteers, children, and journalists.

Experts and representatives were invited, including members of The United Nations Development Programme (UNDP), The International Association for Hydro-Environment Engineering and Research (IAHR), The World Wide Fund for Nature or World Wildlife Fund (WWF), China Society for Hydropower Engineering (CSHE), as well as the Bureau of Fisheries under the Ministry of Agriculture of the People's Republic of China.

The events included lectures, and live broadcasts of the sturgeon's migration. One activity titled “Baby Sturgeon in the Eyes of Children” involved children drawing the fish. More than 1,230 works were received. Over 2,000 children participated in this activity, with the minimum age of 2.5 years. More than 200 media titles in China covered the event, generating 10,000 news articles.

CASE 2 : Global live telecast of the release of sturgeons on new media

In March, 2017, CTG collaborated with Xinhuanet to live broadcast the release of Chinese sturgeons in Yichang on Twitter and Facebook. The 37-minute broadcast attracted 490,000 hits, jumping to over 1 million 24 hours after the release. Meanwhile, some 350,000 online users watched a 90-minute broadcast on Facebook. There was not a single negative posts among 643 comments from viewers, most of whom praised Chinese people's efforts to protect nature. One netizen from Singapore wrote “very pleased to see that the Chinese people are protecting nature”. “A great job! Please implement stricter measures to protect fish”, an internet user called “James” wrote.

Summary: The release of Chinese sturgeon has become a showcase window for CTG's commitment to and efforts in safeguarding the environment and championing biological diversity, an important window through public builds their awareness of TGP and the harmony between dam, reservoir and water. Thanks to the participation of international organizations and social media, such activities also gained awareness and praise from communities around the world. In 2016, WWF included CTG's practice to manage water into the eight exemplars in its annual report titled “Listen to the River”. And the project has been extended to CTG's projects in Laos and Brazil.

PART II: THE RELEASE OF CHINESE STURGEON: COMMUNICATIONS INSIGHTS

After a decades-long conservation program, the release of Chinese sturgeon has gone beyond its technical achievement and now served as an important communications event that TGP taps to raise public awareness of the massive engineering project. The program has been internalized as an integral part of the hydropower project, becoming a model environment-friendly ecological project that also serves as a medium to proactively communicate messages about TGP itself. Externally, through deploying mass communications initiatives, encompassing innovative techniques and multiple mediums, the conservation project shines a spotlight on the hydropower project and serves as a vital conduit to disseminate information on hydropower project in general, thereby shaping and enhancing public opinion on reservoirs and dams.

The annual release of Chinese sturgeon is a watershed public event that attracts a high participation rate and media attention and promotes social awareness as well as shapes public opinion of reservoirs and dams. Through setting the media agenda, coordinating different methods of disseminating information, and taking advantage of the different characteristics of various media platforms, the project secures the widest reach for its key messages during the entire release process that blankets the entire basin, media outlets and people from all walks of life, elevating public awareness and endorsement of the hydropower engineering project.

1. Basin-wide mobilization

From a spatial perspective, not only do local media and national media cover the event, the project's protection activities entail the mobilization of resources in cities along the river, which fosters widespread participation across the whole Yangtze River basin. The project's theme, *The Chinese Sturgeon & Us, Protecting the Yangtze River*, is reflected in public activities held in nine cities along the Yangtze River. The environmental protection narrative was conveyed in popular news stories which clearly burnishes TPG's public image through widespread participation and communications.

2. Whole-process tracking

In terms of timing, as well as daily updates, the number of releases of information about protecting sturgeon along the river was increased, so that the coverage details the fish's whole migration process, its journey from the release point to the estuaries. The focus is on different topics at different stages of the protection process. For example, the initial stage focuses on releasing the sturgeon as a teaser to drum up interest. In the action period, the theme is "chasing the sturgeon". For this part the sturgeon were tracked through scientific and technological means, and then the results publicized through WeChat, micro blogs, and live broadcasts. In the internalization period, the theme is "protecting the sturgeon". For this segment, the focus is on CTG's efforts to maintain the Yangtze River through building a consensus among various societal groups.

3. All-media communication

From the media perspective, the Chinese sturgeon release links central and local media and the wide mobilization of We-media. It adopts a comprehensive communication strategy for print, radio and television and network media, and achieves the three-dimensional communication of information through the integration of content and the interaction with the public. The medium of video has grown in importance to dominate various media channels. Over the past few years, the release of Chinese sturgeons has kept up with social communication trends. Through cooperation with high-end social media platforms, short videos, live broadcasts and other means of communication have been increasingly utilized to create a multi-dimensional, diversified, all-media communications approach that covers all channels.

4. Whole-society participation

From the audience perspective, CTG has evaluated the effects of the program. Through mobilizing groups and individuals from across society, and attracting the participation of public organizations, the project successfully creates a regional public communications event. For example, more than 30 international and domestic environmental protection organizations in nine cities along the Yangtze River actively and extensively participate in organizing children's painting activities to ensure the participation of young people. Through interpersonal communication at home and school, awareness of the importance of environmental protection is widely spread. For example, the activity titled *Drawing the Chinese Sturgeon by Myself* attracts the participation of many children. The concept of the whole of society's participation expands the project's boundaries to include wider concepts such as harmony between people and the environment, ecological protection, and dialogue between the public and engineering projects, and public understanding of engineering, creating a like-minded community who shares the same values about the dam and reservoirs.

PART III: CONCLUSION: PROPER PUBLIC AWARENESS HELPS BUILD BETTER DAMS

Raising public awareness of hydroelectric engineering requires the overcoming of many challenges, even for TPG, the world's largest water control project.

Though the importance and comprehensive benefits of TPG itself have been stressed again and again, TGP still faces many questions and criticisms about topics including ecological protection, geological disasters, and biodiversity.

We believe the activities that center on the release of Chinese sturgeons are a viable way to influence and guide public opinion, thus raising public awareness and improving knowledge of TPG and casting it in a more favorable light.

1. The communication of engineering aspects of TPG should be an integral part of the whole life-cycle of engineering construction

Previously communications were one-sided. However, information about the project should be part of the entire engineering construction process. As the project progresses, information should be released that builds a complete and rich image of the project in the public sphere. This information should also track the whole life-cycle of engineering construction, including the reasons for construction, evaluation processes, construction phases, operations, and even its retirement. Communications should satisfy the public's right to know and be conducted in a down-to-earth and proactive way, which would help win their support. Such communication initiatives would counter incorrect narratives and prevent misunderstandings from occurring, which is particularly important in times of crisis.

2. Promoting public awareness needs to shift from media construction to cultural construction

In the past, the media, especially traditional mainstream media, played a key role in building public awareness and the image of hydroelectric engineering.

The media constructed the subjective world of our cognition. In other words, what the public knows about water conservancy and hydropower projects was often a pseudo-environment derived solely from the media's interpretation of information.

Contemporary communication activities like the sturgeon project show that the integration of online and offline activities is more effective for constructing a positive project image. Widespread participation is an important prerequisite for effective communications.

With the help of the media and public opinion, the public's perception of the hydropower projects would become more deeply embedded, becoming an intuitive, symbolic and daily life occurrence. This will lead to the formation of a new collective memory of the project, namely, the cultural image of the engineering project based on the public's direct perception, which has a stronger participation experience and a more emotional resonance, producing powerful recognition and empathy.

3. Expert views key to promoting public awareness

Due to the increasing demands deriving from the public's right to know, new media represented by social media are becoming *the message* itself (McLuhan, 2000). The media, as communication mediums, shape the public's image of the world and project it to the public. In reality, the media's opinion is just one type of voice that members of the public listen to.

To shape public opinion, the views of credible experts are required - these thought leaders would be able to shape opinion because of their expertise and knowledge.

Therefore, it is essential for our hydroelectric project builders to become credible experts in their respective fields and be media savvy and for them to build their media profiles. They also need to develop other communications skills so that they are able to handle tough questions and communicate complex ideas effectively, clearing public's doubt and confusion and guiding them to from an impartial and objective view of engineering and ecology that could contribute to the public's elevated awareness of the reservoirs and dams.

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