

# Engineering and construction issues that surrounded the three gorges project

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### Overview of the Project

A project whose construction decision received an approval in 1948, the Three Gorges Dam Project, replaced the Great Wall as the largest project. Marred by contentions and controversies, the project would later be a mega undertaking that would stretch the limits of engineering and China's resources. Initially, the project was quite promising since, at the time, the concept of sustainability was not given much weight; the primary focus was on the massive prospects associated with the project. As such, the Chinese government and all the parties to the decision incepted without a second thought, a project that later threatened to break China and its environment plus the general ecosystem apart. Riddled with massive corruption that even worsened the environmental hazards tied to the project, the Three Gorges projects holds the world record for the number of people displaced (Shu, 2012 pg. 14).

### Discussion of the Issues

The most damning yet unthinkable reality is the number of people displaced during the construction of the Dam. From the onset, the dam was intended to be a massive project, little was it known that the effects will be enormous as well. According to available statistics, close to 1. 2 million people were ejected out of their dwellings to give room for the project. As if not enough, several cities, towns and villages were flooded. As such, the project led to unimaginable levels of human rights violations.

Moreover, the environmental impacts of this initially heroic undertaking are

incredible. To make the situation even worse, the environmental effects of this project may continue into the unforeseen future if measures are not taken to mitigate them. As the dam transforms the landscape of the area, so are the weather pattern and ultimately, the climatic conditions. Precisely, while the erosion is likely to cause landslides, the weight of water in the reservoir is likely to cause reservoir-induced seismicity. Also, the model of this dam is likely to develop complications in future, which may in turn add more trouble to the existing string of trouble for the locals. As much as the effects may be blamed on corruption and the engineers, it is also certain that the size of this project may have significantly contributed to the current predicaments facing the dam.

#### How the Situation May Affect Future Designs

Up until now, more and more controversies spring up from engineers concerning the model of the Three Gorges Dam, which, unfortunately, is already being replicated by the Chinese engineers world-over. Even before most of the mistakes made in the project are rectified, Chinese engineers are already building dams throughout the world using the same model.

Therefore, the errors are propagated from one place to another and from one dam to another. It will adversely affect the future designs since those projects that take after the Three Gorges will have similar environmental and other effects.

#### Violation of Ethical Considerations

The typical engineering operation guidelines stipulate that all the necessary ethical considerations be made prior to any project, level alone those as huge as the Three Gorges. Now, in this project, the plague of corruption

might have led to flouting of some ethical guidelines. One glaring violation is the failure to estimate the future effects of the Dam on the local environment and the ecosystem. If any such considerations were made, there would not have been the level of destruction witnessed as a result of the project. The effects on River Yangtze, the effect on crops and the disastrous model, all would have been included in the planning, and a comprehensive method developed to deal with them. The lack of organization and order in the resettlement of the displaced, and the flooding of the area are all manifestations of flouted guidelines. All in all, the Three Gorges should be a source of learning for future humongous engineering projects to avoid a repeat of the mistakes.

#### Work Cited

Shu, Gao. The Three Gorges Project: Development and Environmental Issues. Beijing: Macalester International, 2010.