**Dams and reservoirs create as many problems as they solve. Discuss this statement with reference to multi-purpose schemes.**

When fully completed, the Three Gorges dam in China will become the world’s largest dam. It is located on the “Chang Jiang” (Yangtze) river in the center of eastern China. It is highly controversial due to its several positive and negative impacts.

One of its benefits is the production of hydroelectric power (HEP) by the dam. This accelerates economic growth and development through electricity production and employment in the area. The power produced will supply 10% of China’s electricity, producing over 20,000 megawatts of power. Another positive side effect is that the energy produced is clean and renewable, causing reduced air pollution as 80% of China’s electricity is currently produced by coal fired stations, which add to greenhouse gas emission.

Another positive impact will be the resulting flood control. This socio-economic benefit will provide protection from floods for the people living in the densely populated areas downstream. It will prevent the displacement and killing of many people that have been affected by floods in the past, such as the largest flood in the 20th century in the 1954 flood, killing 300,00 people and affecting 18.9 million. Furthermore, as the water is regulated, the supply for downstream villages is also secured and controllable.

However, there are also negative impacts caused by the dam. Next to the huge costs, the relocation of people is a large problem. At least 1.2 million people have to be resettled as a result of the extensive flooding for the reservoir creation. While this is difficult but physically possible, long-term effects are often worse. Not only do most of these people face a loss of culture, but they often struggle to find adequate housing or employment in the places where they are brought, as their previous income source has been eradicated. This often results in a decrease in life quality and might cause social tensions.

The energy produced is clean and renewable, however there remain pollution and environmental problems. The reservoir area faces the threat of serious water pollution from sewage and industry, such as chemicals released from the flooding of factories. This affects both villages downstream that rely on clean water, as well as natural habitats and the ecosystem. Some animals might have to fight extinction as permanent changes to their habitat in terms of water quality or temperature (climate) can cause serious threats to their lives.

To conclude, there are several problems that have to be taken into account, especially on such a large scale as in the Three Gorges dam. However, with increased governmental effort and extensive planning, these can be brought under control. For example water-cleaning strategies for the reservoir could be introduced to reduce the negative side affects that this would bring with it.