



## Flood Management Strategies (DM12)

Rivers can be managed to reduce the risks and impacts of flooding. These management options can be divided into two broad categories; **hard**- and **soft**-engineering options.

Hard engineering options tend to be more expensive and have a greater impact on the river and the surrounding landscape. Soft engineering options are cheaper and more ecologically sensitive as they blend in better.

Examples of Hard engineering:

Dams, concrete walls, overflow pipes, culverts (pipes underground), straightening and reinforcing the channel.

Examples of Soft engineering:

Planting trees, managed flooding, doing nothing, creating flood relief channels and wetland areas.

Different interest groups have different views about flood management techniques:

- Governments and developers often favour large hard engineering options, such as dam building. Building a dam and a reservoir can generate income. Profits can be made from generating electricity or leisure revenue. It is also obvious that management techniques have been applied.
- Environmental groups and local residents often prefer softer options, such as planting trees. Soft options cause little damage to the environment and do not involve the resettlement of communities.
- Effective flood management strategies should be economically, environmentally and socially sustainable. Sustainable strategies allow management without compromising the needs of future generations.