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| Disadvantages: If buildings are built up to the river bank it might not be possible to enlarge the channel. Also the process can be expensive and can cause problems to areas downstream who are receiving more flood water quicker, but with an un-enlarged channel. | Disadvantages: By changing the course of the river, you might remove flowing water from industries that depend on it. There might also be building that have to be demolished to allow straightening. Again it is expensive and may cause flooding problems downstream. | Disadvantages: It can be hard find land to build relief channels, they are expensive and when empty can become areas to dump rubbish, etc. If river levels rise significantly it is also possible for relief channels to flood as well. | Disadvantages: Building dams, sluices, diversion channels are all expensive. They also involve flooding areas of land which may be hard to find near large vulnerable urban populations. |
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| Disadvantages: Like in New Orleans under extreme conditions, embankments may fail causing even bigger problems. They are expensive to build and again may cause problems downstream. | Disadvantages: You have to make the decision what is worth protecting which is always going to upset someone. You also have to protect areas that you don't want to flood which costs money (cost benefit analysis) | Disadvantages: It is not possible to cover the whole drainage basin in trees, so if it rains in an area with no trees, then there is no reduction in flooding. Also most trees lose their leaves in autumn and winter reducing interception in those months. | Disadvantages: Temporary defences can usually only protect against minor floods. Not everyone will be happy with having to redesign their houses. |
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| Disadvantages: They do not actually prevent flooding. Not everyone can afford insurance and insurance companies may not insure high risk areas. | Disadvantages: It is not always possible to change land uses that already exist in an area. You have to decide what size flood to map for e.g. a once in ten year flood or once in one hundred year flood. Often poor will still choose to live on marginal land. | Disadvantages: Won't protect against big floods and farmers may not be happy giving up farmland, simply to grow trees. | Disadvantages: They are expensive, may flood themselves in times of heavy floods and may restrict future urban growth. |
| Disadvantages: It is usually not practical to move whole settlements, because of the cost and the problems of finding alternative locations. Also many settlements depend on water for their survival. | Disadvantages: If rain is downstream of the dam then they have no effect. In large flood events they are vulnerable to breaking and are expensive to build. | Disadvantages: They are expensive to build and during big flood events the flood water may go over the wing dykes. Also if there is property on both sides of a river, which side do you protect. | Disadvantages: This involves a complete redesign of sewers. Sewers usually have to be increased in size and electronic sluices have to be added. They also have to be operated from a central command centre and with all electronically operated equipment can break. Also they might not be able to cope with large scale floods, so water has to be released into rivers anyway. |
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| Disadvantages: It is expensive and is not natural so vegetation and animal life will find it harder to grow and live. Flooding maybe caused downstream of the channelized area. | Disadvantages: Deposition can mean that dredging needs to happen regularly. | Disadvantages: During large flash floods vegetation can be easily removed. | Disadvantages: Can't protect aganist big floods and may have to coincide with zoning. |