

Bank Erosion

Bank erosion is the wearing away of the banks of a stream or river. Bank erosion occurs commonly in rivers and upper reaches of estuaries. Bank erosion is often associated with the evolution of meanders, as one bank is silting and the opposite bank is eroding.

Causes of bank erosion:

River bank erosion has several causes with even more factors that can accelerate it. The major causes are flooding, land use, stream management, over-clearing of catchment and stream bank vegetation, and poorly managed sand and gravel extraction

Erosion can also be accelerated by factors such as:

- Stream bed lowering or infill
- Inundation of bank soils followed by rapid drops in flow after flooding
- Saturation of banks from off-stream sources
- Redirection and acceleration of flow around infrastructure, obstructions, debris or vegetation within the stream channel
- Removal or disturbance of protective vegetation from stream banks as a result of trees falling from banks or through poorly managed stock grazing, clearing or fire
- Bank soil characteristics such as poor drainage or seams of readily erodible material within the bank profile
- Wave action generated by wind or boat wash;
- Excessive or inappropriate sand and gravel extraction
- Intense rainfall events (e.g. cyclones).

Impact of bank erosion

Impacts of river bank erosion are multifarious: social, economic, health, education and sometimes political.

- The first and foremost impact is social, i.e., homelessness due to land erosion which compels people to migrate. After forced migration they suffer from economic crisis, namely loss of occupation and loss of property, and they are at the risk of poverty and sometimes involvement in criminal activities. Identity crisis is inevitable to these migrated people as their belongingness to any particular district or state or country is often denied.
- Other consequences of bank erosion are the lack of medical and education facilities. Medical care units that were on the eroded land are all lost. In their new settlement generally those are lacking. So, they have to travel longer distances than before and bear extra cost for medical treatment. Similar is the case for education.
- Moreover, due to loss of occupation they are having difficulties to spend money for purposes other than essential items like food and shelter, even if the medical and education

facilities exist in their new occupied places. Results are their poor health, sickness and illiteracy of their children.

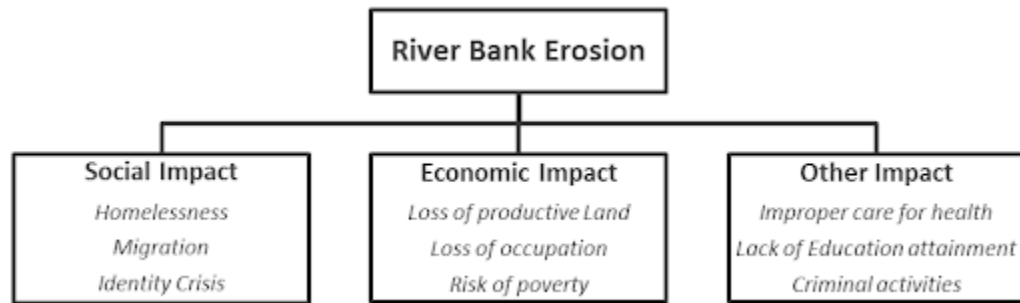


Fig: Impact of bank erosion