Technology Fact Sheet

# Protection of riverbanks (Bio-engineering) [i]

1) **Sector:** Extreme events

2) **Subsector:** Protection of riverbanks from erosion processes

3) **Technology Name:** Protection measures against erosive washing out of riverbanks

4) **Recommended version of technology:** Bioengineering measures – construction of gabions or big stones and fortification of the riverbanks by planting of deep-rooted trees.

5) **Availability:** The recommended technology version is effective from financial point of view and easy for technical implementation with the involvement of local population. From environmental point of view, the construction of gabions with cobble stones is the best solution for the fortification of riverbanks, as the cobble stones in Ajara rivers can be found in sufficient amount.

6) **Technology description**

In the segments of intensive erosive washing of riverbanks where the highly productive lands are especially damaged and where population and highways are exposed to direct risk, the most effective and simple measures could be construction of stone and wire gabions. Planting of fast growing and deep-rooted trees, preferably in staggered rows, is also quite efficient.

7) **Priorities of social-economic development of the country and environmental priorities:** Protection of high productive lands from total destruction, as well as protection of population for erosive processes and bank landslides

8) **Expenses:** Construction of one cubic meter of gabions costs around 70 USD. Planting of one tree (acacia, hazelnut, walnut) costs around 0.39-0.50 USD

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[i] **This fact sheet has been extracted from TNA Report - Adaptation for Georgia. You can access the complete report from the TNA project website http://tech-action.org/**