

## Appendix S3

### A Summary of Effects of the Major Drivers of Ecosystem Change

Driver	Effects against ecosystem/human well-being
Resource dependence	<ul style="list-style-type: none"> <li>- High pressure on natural resources (too much harvest of fish, trees and cultivation of agriculture lands without considering carrying capacity of the specific ecosystems)</li> <li>- Insufficient livelihoods to resource users due to high dependence and competitions</li> </ul>
Floods	<ul style="list-style-type: none"> <li>- Erosion of the riverbanks and farms around the river basins, changes of natural land cover, displacement of indigenous organisms and serious shortage of food.</li> <li>- Uprooting of mangrove trees, trapping excessive loads of sediment that kills mangroves</li> <li>- Outbreak of communicable diseases &amp; destruction of settlements especially for people staying in or adjacent to the river basin or catchment areas</li> </ul>
Fishers migration	<ul style="list-style-type: none"> <li>- Increase dependence on natural resources and high competition on use of resources</li> <li>- Resource use competitions influences use of illegal harvesting methods which affects fish and their breeding grounds</li> <li>- Spread of contagious diseases due to interactions between migratory fishers and permanent residents</li> </ul>
Oil and gas exploration/exploitation	<ul style="list-style-type: none"> <li>- Dredging of sea floor/bottom during installation of gas pipes and drilling of gas wells results into sedimentations which affect marine organisms</li> <li>- Cetaceans migration route and turtle nesting affected</li> <li>- Noise pollution effects all forms of life in the area especially to the residents,</li> <li>- Some residents displaced to pave the way for gas exploration and exploitation</li> </ul>
Deliberate forest fire Political patronage	<ul style="list-style-type: none"> <li>- Degradation of land cover, loss of indigenous species</li> <li>- Local community property i.e.; house and crops destroyed by fire</li> <li>- Accelerates breaking of laws without any action against culprits</li> <li>- Increase illegal undertakings which destroy environment and diminish resources which could be used by the current and future generations for their livelihoods for a long time</li> </ul>
Local migration	<ul style="list-style-type: none"> <li>- Clearing of land cover for agricultural activities</li> <li>- Increase dependence and competition on resources</li> <li>- Spread of communicable diseases from one place to another i.e.; HIV/AIDS, cholera, and tuberculosis. This was commonly occurring in fish camps.</li> </ul>
Over-harvesting of resources	<ul style="list-style-type: none"> <li>- Creates unbalanced ecosystems</li> <li>- Some organisms can be affected to the level of extinction (mainly affects ecosystems and biodiversity i.e.; mangrove trees and fishery industry)</li> </ul>
Use of destructive fishing gear	<ul style="list-style-type: none"> <li>- Kills immature fish, eggs, destroys marine ecosystems.</li> <li>- Loss of some plants and animals species</li> <li>- Threatened livelihoods of local communities</li> </ul>
Clear fell of forest/mangrove	<ul style="list-style-type: none"> <li>- Loss of important plants and associated biodiversity in both mangroves and forests</li> <li>- Erosion</li> </ul>
Shifting cultivation	<ul style="list-style-type: none"> <li>- Creates bare land hence; less fertility, low yields due to degradation of lands,</li> <li>- Loss of important species of both animals and plants (trees, shrubs and grass)</li> </ul>