

# UNSUSTAINABLE RESOURCE USE OF PRA RIVER BASIN IN GHANA: CONSEQUENCES ANALYSIS

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The Pra River is a river in Ghana. It is in the easternmost and the largest of the three principal rivers that drain the area south of the Volta divide. Rising in the Kwahu Plateau near Mpraeso and flowing southward for 240 km through rich cocoa and farming areas and valuable forests in the Akan lowlands, the Pra enters the Gulf of Guinea east of Takoradi.

The Pra River and its tributaries constitute a major source of water supply to communities within the basin. The major tributaries are perennial and constitute all-year-round reliable water source. However, human activities such as mining (mostly illegal) and logging are having adverse impacts and degrading the surface water resources of the basin.

The Pra Basin is one of the most extensively and intensively used river basin areas in Ghana in terms of settlement, agriculture, logging and mining. The basin contains most of the large cocoa growing areas in the Eastern, Ashanti, and Central regions. Tree cash crop cultivation other than cocoa includes mainly oil palm. The basin contains the highest density of settlements (both rural and urban) in Ghana. It has a high concentration of mining activities mainly concerned with gold and other ground minerals.

High concentration of mining activities in the upper regions of the basin may dry up the source of the river. Large scale and small scale mining with disruptive impact on surface cover including soils occur around Obuasi and Konongo.

Pollution of the rivers caused mainly by the dumping of refuse especially in large settlements and related industrial waste discharges, unapproved fishing practices and use of agrochemicals in vegetable farming are amongst the activities destroying the potential or ability of the water body to support plant, animal, human as well as aquatic life. Thus the water becomes unsafe for domestic use and also unhealthy to support fish and other aquatic life, of degraded land unable to produce food and also pools of water which serve as mosquito breeding sites.

One of the biggest problems caused by this activity is the use of mercury, which is poisonous to human health, getting into the food chain when accumulated in the fish. The river is likely to be chemically contaminated if the illegal mining activities do not come to a stop. And let's not forget about the furious deforestation, among others. This is gradually resulting in the reduction of the water level. Moderate to severe sheet and gully erosion poses a threat for flooding within the basin as logging activities increase. The extensive forest clearance for mining, settlement, and infrastructural development causes considerable loss of soil minerals and subsequent high sediment transport in the Pra and

its tributaries.

One of the major red flags pointed out by scientists is that the Pra River basin, which will soon be chemically contaminated if the illegal mining activities in the area aren't stopped or properly regulated is that if the exploitation at the basin of the river continues going at this rate with its present conditions the river would not be able to support human life in the next five years to come. The use of mercury and other chemicals is even more serious because fishes in the rivers get contaminated and people who eat such fishes could be at risk of losing their lives..

Ghana however requires a substantial amount of money to dredge and clean the rivers and water bodies which have been heavily polluted by illegal small-scale miners. The de-contamination of the polluted rivers could also be done by the use of chemicals, but this option of trying to return the quality of the water source or at least improve upon its present state is very expensive.

Alternative livelihood projects could be created to deter people within these mining communities from continuing these illegal mining activities. Also, in order to protect human life, mining communities near this river are advised to consider rain water harvesting and the use of boreholes and underground water as alternative sources of obtaining water.

The government as well as the inhabitants of these mining areas would also have to engage in extensive planting along the water body. This would help in controlling erosion as well as preventing the porous part of the soil from been washed into the river. By so doing, the rate at which the banks of the river floods would also be controlled.

Also in an attempt to solve this problem the police force should be given the mandate to seize machinery of these illegal miners. The monies obtained from the sale of such machinery could be invested in the dredging of the water body. In addition, huge fines or penalties should be passed on any persons caught in the act of engaging in this illegal mining business.

In trying to solve this problem however, we would have to deal with the first things first. Thus, serious attention should be focused on how best to stop the illegal mining activities as well as the logging activities which seem to be the main activities destroying the quality of the river water and also making it loose its ability to support plant, animal, aquatic and human life.

The government is however been challenged as it is not financially capable to take up a project such as the dredging of a large water body such as the river Pra. Aside the dredging of the water body which serves as a challenge to the government, the government is also challenged with coming up with funds to provide alternative water sources for the people living in these mining communities. The issue of money arises once again when it comes to providing the inhabitants of these mining communities with alternative means of livelihood.

Finally, inhabitants in these mining communities would have to be educated

in order to make them aware of the consequences their actions. This enlightenment would cause them to find alternative as well as environmentally friendly ways of disposing off their waste materials. Educating them on the effects of the illegal mining might also deter them from involving themselves in it. It might even cause them to assist the police with information to help them bring these foreign illegal miners to book.

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