

## **ABSTRACT**

### **Illegal Unregulated and Unreported Fishing: Methods and Increasing Trends in Lake Naivasha, Kenya**

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Illegal, unregulated and unreported (IUU) fishing is a negative social vice that adversely affects global capture fishery production. The inadequate disclosure of IUU methods and trends in fishery waters hampers management actions to curb illegal fishing activities. Seldom have empirical studies been conducted on IUU methods and their trends in Lake Naivasha. Therefore, this study analysed data on the fisheries monitoring, control and surveillance (MCS) during 2012 to 2018 to test for the significance of trends, and compare the enforcement plans to seizures of illegal fishing gear in the lake. The IUU fishing methods included both the types of equipment and the means used to perpetrate illicit capture or acquisition of fish from the lake. The results indicate a 37% reduction of MCS enforcement patrols during 2018 compared to 2012, and a 16% to 100% upsurge in the quantity of seized IUU fishing items. Illegal fishing boats potentially threaten the fishery of Lake Naivasha with an additional fishing effort of 22% above the 176 licensed boats. An average of 10,700 fishing nets seized per year has the potential fishing intensity of 74 gillnets/km<sup>2</sup> against an ideal intensity of 12 gillnets/km<sup>2</sup>. The frequencies of MCS patrols in Lake Naivasha exhibit no particular trends and likely ineffective in deterring the upsurge of IUU activities, or the evolution of new illegal fishing methods. An increased seizure of illegal fishing boats, outboard engines and gillnets could imply their rampant use in IUU fishing activities. These findings merit a multi-stakeholder participatory approach to identifying the MCS weaknesses and opportunities for sharing resources to strengthen the fishery management efforts in Lake Naivasha.

**Keywords: Illegal Fishing, Unregulated Fishing, Unreported Fishing, Lake Naivasha, Fishing Trends**