

Waste Management Survey Report of 20 Selected Mara Basin Lodges and Tented Camps 2017

A joint survey by Sustainable Travel and Tourism Agenda, WWF-Kenya and Water Resources Management Authority



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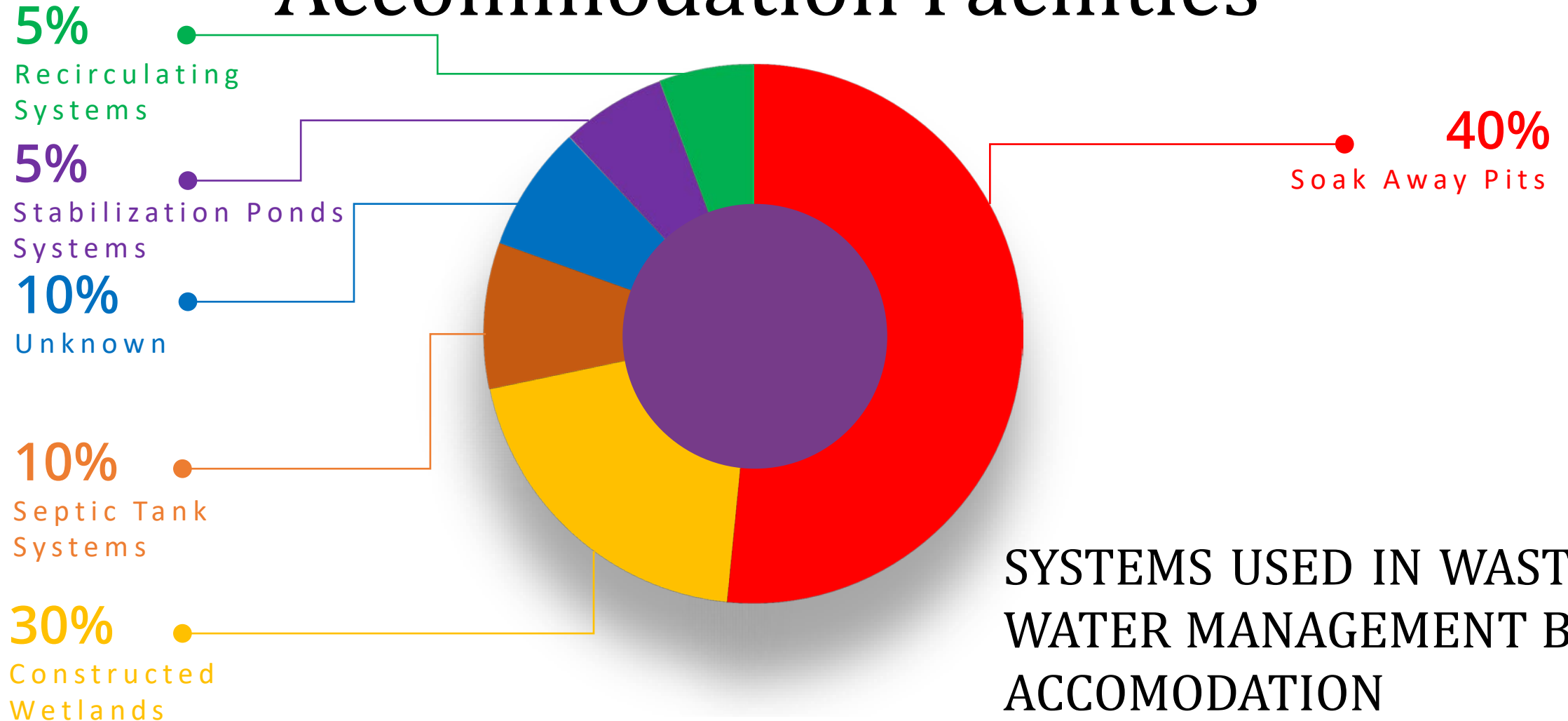
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KEY CHALLENGES

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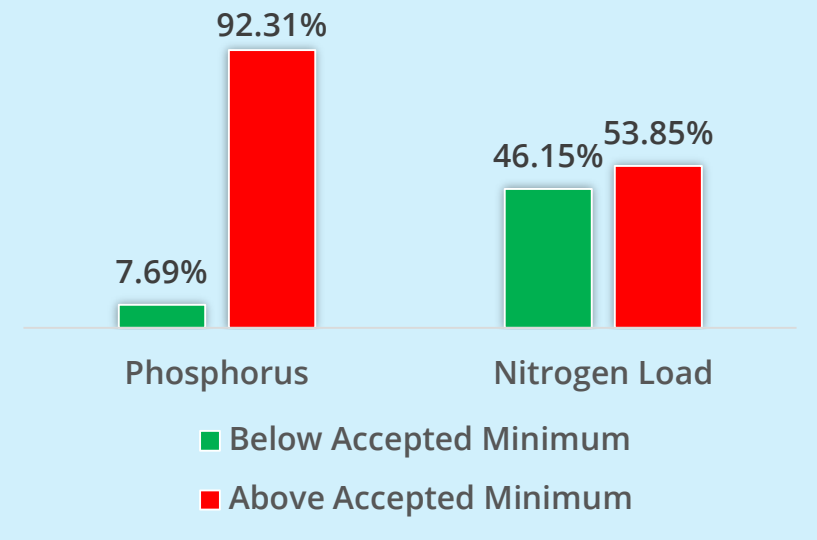
Waste Water Management Systems Used By Accommodation Facilities



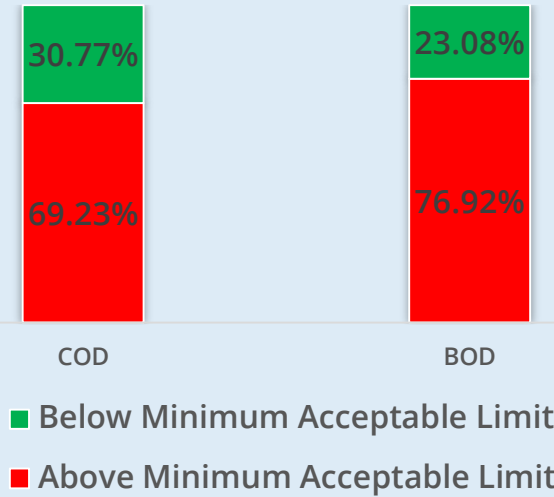
SYSTEMS USED IN WASTE WATER MANAGEMENT BY ACCOMODATION FACILITIES

POLLUTION LEVELS OF WASTE WATER DISCHARGED BY ACCOMODATION FACILITIES i.e % of facilities discharging below and above acceptable limits

Nutrient Load i.e Phosphorus Load & Nitrogen Load



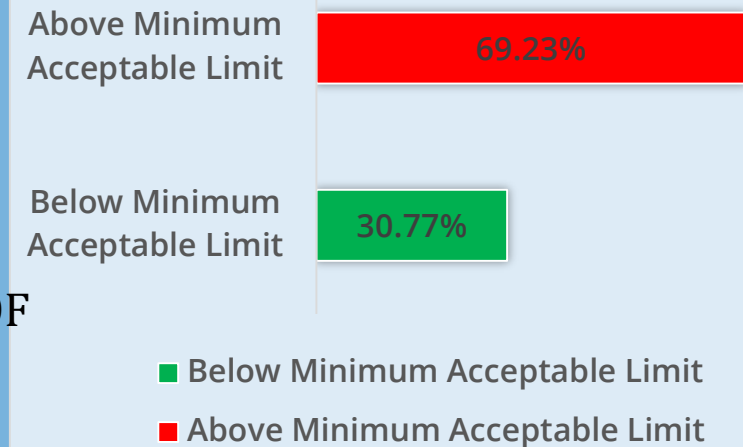
Organic Matter i.e COD and BOD



SOAK AWAY PIT SYSTEMS

Very high Toxicity Levels

Suspended Solid Load



CONSTRUCTED WETLANDS

Low Toxicity Levels

INCREASING LEVELS OF TOXICITY OF EFFLUENT DISCHARGED FROM THE DIFFERENT SYSTEMS USED

DRY SOLID WASTE MANAGEMENT i.e PLASTIC, GLASS,PAPER & METALS/TINS

QUANTITY OF DRY SOLID WASTE GENERATED IN KGS/GUEST/NIGHT

UNKNOWN: Majority of accommodation facilities do not measure dry waste generated onsite

DISPOSAL OF DRY SOLID WASTE

95% of accommodation facilities transport 80-90% of the dry solid waste to **Nairobi** for Disposal. 5% Dispose dry waste onsite in a **landfill**

END POINT OF DRY SOLID WASTE IN NAIROBI

89.47% of accommodation facilities that transport dry waste to Nairobi for disposal are **NOT AWARE** of how the waste is disposed. Nairobi has a capacity of Managing only **40%** of its dry solid waste



REDUCE

• 20% of accommodation facilities practice reduction of dry solid waste

REUSE

• 5% of accommodation facilities practice reuse of dry solid waste

RECYCLING

• 5% of accommodation facilities practice recycling of dry solid waste

70% of accommodation facilities do not practice **REDUCE, REUSE and RECYCLING** of dry solid waste

IMPACT OF ECO CERTIFICATION ON BEST PRACTICES IN DRY SOLID WASTE MANAGEMENT AMONG ACCOMODATION FACILITIES



Eco certification of accommodation facilities had an impact on the best practices of diverting dry solid waste away from lands fills where the practice of Reducing, Reusing and Recycling was more common among gold eco certified accommodation facilities than Non eco certified accommodation facilities

FOOD WASTE MANAGEMENT

QUANTITY OF FOOD WASTE GENERATED IN KGS/GUEST/NIGHT

1.42KG of avoidable food waste is lost per guest per night from kitchen process and storage. Facilities reported very little food waste from guest plates

END POINT OF FOOD WASTE

65% of accommodation facilities dispose food waste in onsite landfills

35% of accommodation facilities compost food waste to produce manure for kitchen gardens



BEST PRACTICES IN MANAGING FOOD WASTE

REDUCE

- 0% practice reduction of food waste or have a strategy for the same

RECYCLING

- 35% of accommodation facilities recycle food waste by **composting**

\$ 2,666.77 is possibly being lost by accommodation facilities per guest per year from avoidable food waste.

An estimated 1.554 tons of methane gas is being generated per guest per year from food waste disposed in pits/ landfills

IMPACT OF ECO-CERTIFICATION ON BEST PRACTICES IN FOOD WASTE MANAGEMENT AMONG ACCOMODATION FACILITIES



Eco-certification of accommodation facilities had an impact on the best practices of composting food waste to produce manure for kitchen gardens was more common among GOLD eco-certified accommodation facilities than Non Eco-certified accommodation facilities

KEY CHALLENGES IN WASTE MANAGEMENT BY ACCOMODATION FACILITIES

1 *Poor waste monitoring and evaluation systems*

2 *Lack of nearby waste treatment facilities*

3 *Poor practices in solid waste segregation*

4 *Lack of knowledge transfer in the maintenance of expert installed systems*

RECOMMENDATIONS

Facilities in the Mara are experiencing challenges in proper waste management that will have negative impacts on the Mara ecosystem as a protected area. Urgent interventions are required to remedy this situation and avoid massive environmental pollution and degradation that will eventually lead to a total collapse of tourism in the area, species loss and deterioration of the health of local communities in the area

1 Improvement in waste monitoring and evaluation of waste management systems

2 Establishment of a nearby waste management facility to reduce costs of transporting waste to Nairobi for disposal

3 Training of staff on the maintenance of expert installed waste management systems like constructed wetlands. This will enable the staff to repair the systems in case of breakdown

4 Removing the perception that sustainability is a competition rather than a practice for the greater good of the businesses, the people and the planet and therefore knowledge should be shared



*SAVING THE MARA FROM
WASTE*