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Safety system developed for light FADs¹

by Max Palladin²

Between 1994 and 1996, the French Co-operation Fund (FAC) supported a light FAD development project as part of an artisanal fishery development programme in Sao Tome and Principe, started by FIDA in 1995.

This programme was managed by the French company SEPIA (fisheries and aquaculture consultants) and supervised by Master Fisherman Joël Diquelou. With the benefit of experience from 26 coastal and deep-water FAD deployments, this programme made it possible to design a type of FAD suitable for local conditions, which was economical to make and set and could be managed and maintained by the fishers themselves.

In addition to the usual problems encountered in programmes of this kind, the use by the fishers of very long drift gillnets added a further constraint by causing the loss of many devices. These nets, 1000 to 2000 m in length and with a 2 m drop, are widely used to catch flying fish from October to May. When the nets drift and become entangled around a FAD, the fishers often have no alternative

but to cut the mooring, leading to the irretrievable loss of the FAD.

In order to solve this problem, the project developed an original safety system which makes it possible to recover severed moorings and replace the upper part.

The FADs concerned consist of the following components: an anchor consisting of a lorry tyre filled with concrete from which extend straps similar to car safety belts, to which the mooring line is fixed. This line consists entirely of 10 mm diameter polypropylene rope (length equal to 1.5 times depth). At the surface, a set of 10 buoys each of 4 l of buoyancy, plus a 60 l plastic float fitted with a wooden mast, form the visible part of the FAD.

At approximately 20 m below the surface, three 4 l buoys have been attached to the line followed by a weight of approximately 14 kg which can slide along the mooring line. This weight consists of a cement block with a centre hole made by inserting a PVC tube to protect the rope from chafing

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directly against the cement. Should the line be severed, the weight drops and releases the line, which comes back up to the surface and floats. The fishers can then rebuild the upper part of the mooring, not forgetting of course to include another safety system.

This project has just been extended for a three year period (1997 to 2000) with funding from *Caisse française de développement* to pursue the goal of setting 25 new FADs around the islands of the group and transferring their management to the fisher communities.

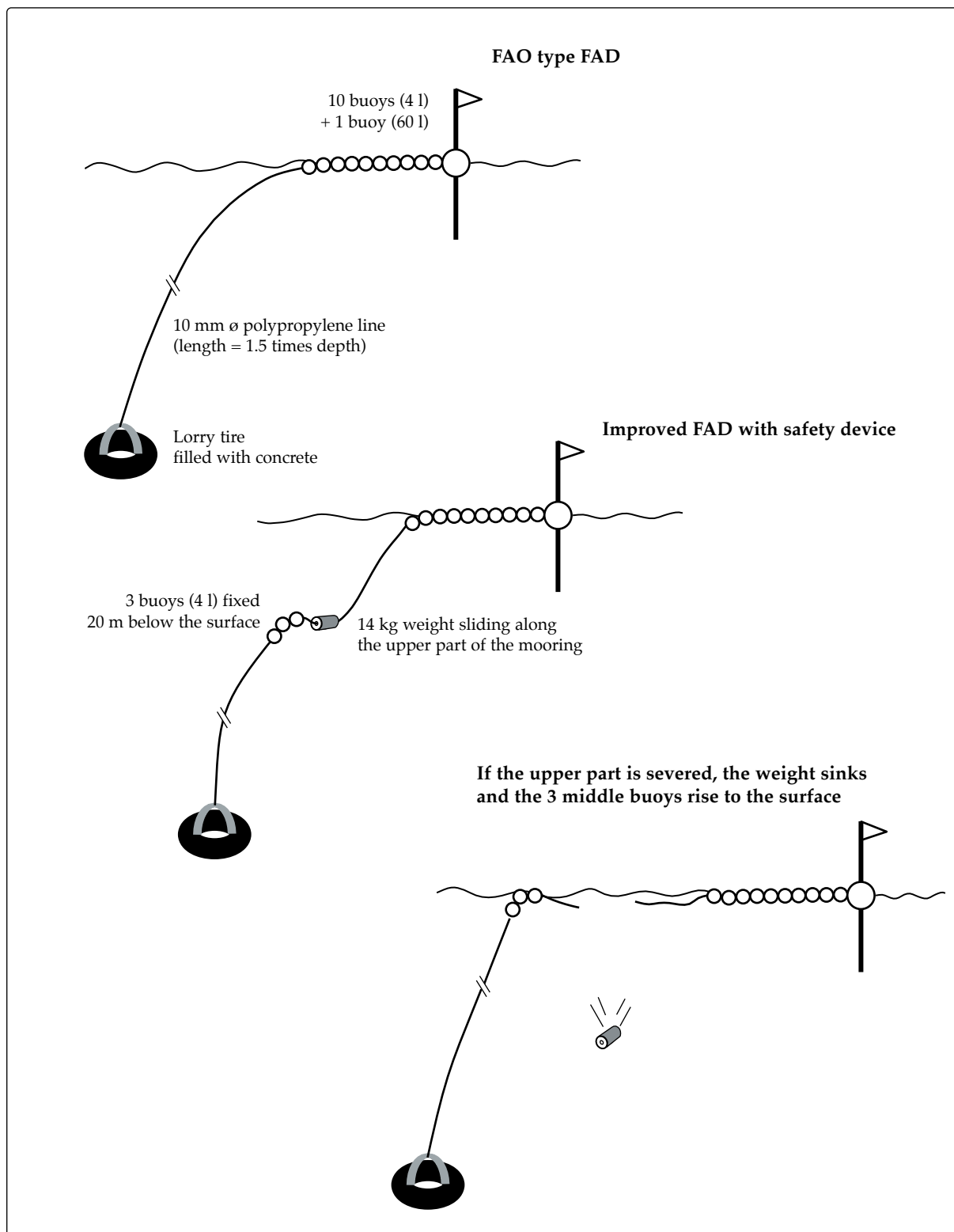


Figure1

Diagram of the safety system developed on FADs in Sao Tome and Principe