

DANIDA

Programme pour le Développement Intégré des  
Pêches Artisanales en Afrique de l'Ouest (DIPA)



Programme for Integrated Development of Artisanal  
Fisheries in West Africa (IDAF)



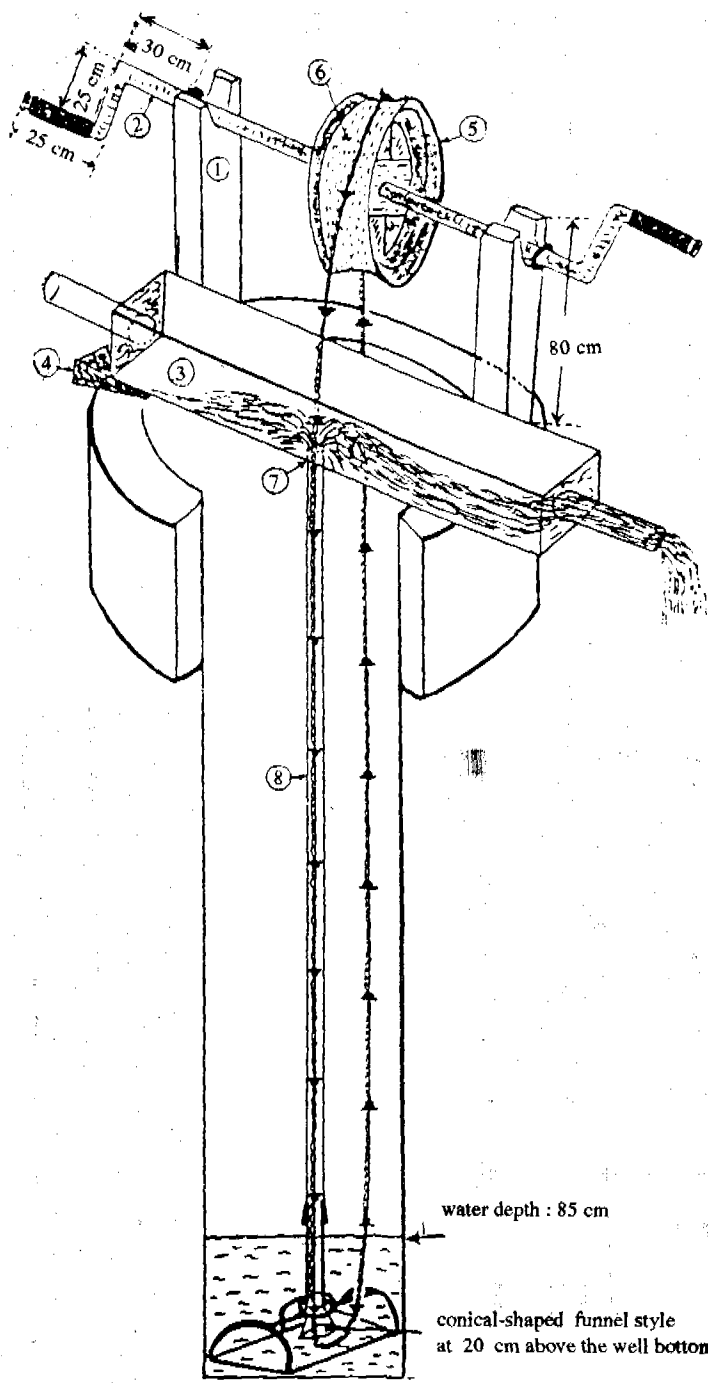
**DO - IT - YOURSELF !!**

**AN**

**EFFICIENT**

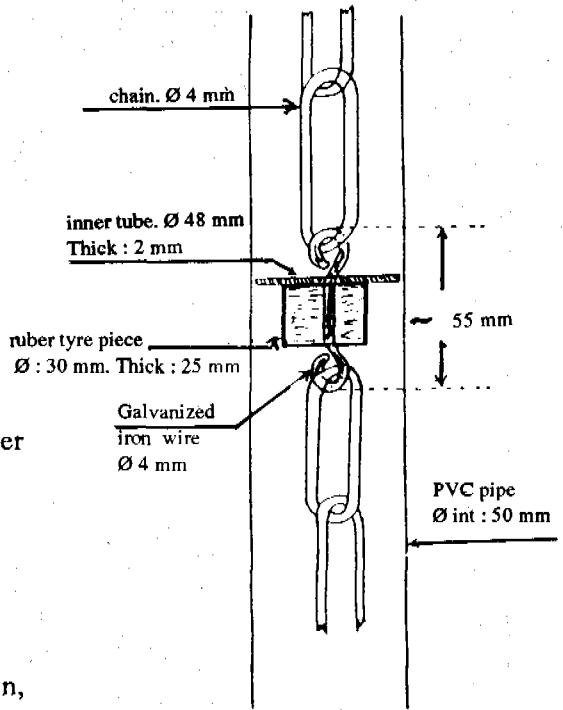
**DURABLE**

**BUT CHEAP WATER PUMP.**



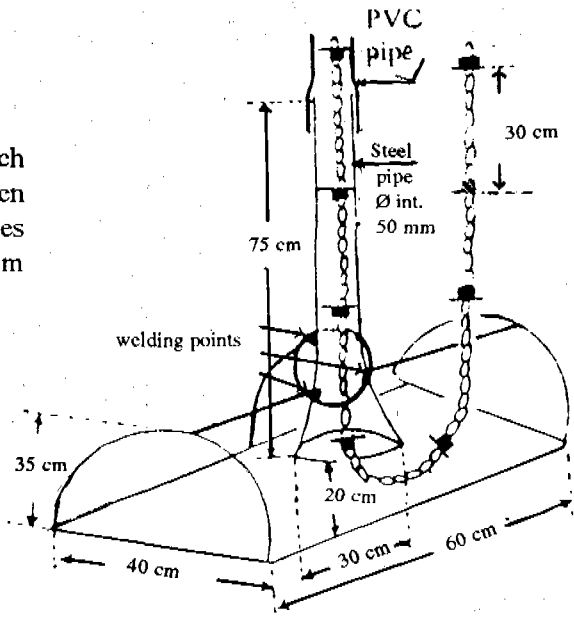
### Caption

- 1 - Hard wood frames, 12 x 9cm
- 2 - Axle and handles, galv. Steel pipe diameter : 2.5cm
- 3 - Water collector
- 4 - Wooden block to incline the Water collector toward the tank
- 5 - Second hand wheel of small car diameter : 28.5cm. wide : 11.5cm
- 6 - Asperities anti - slippery for the chain, iron rods diam. 3mm. Length 6 - 8 mm
- 7 - PVC pipe inserted ~ 5cm inside the bottom of the water collector
- 8 - Total length of the pipe = 5.50m



### PUMP OUTFLOW

During the trials, with a **person** on each handle, an outflow of 82 litres/mn has been observed by filling a tank of 739 litres contents in 9 minutes, or 82 l. x 60mn = 4800 litres per hour.



ESTIMATED COSTS FOR MAKING AND INSTALL THE WATER PUMP ON A WELL OF THE UDP of AYIGUINNOU VILLAGE, GRAND-POPO. BENIN.

|   |        |
|---|--------|
| One piece of hard wood : 4 m x 0.30m 0.10m, +sawing and planing :   | 4,000  |
| One non galvanized chain, diametre 4mm, length 13 :   | 21,560 |
| One oilecloth plastified sheet, (1M2), to make the collector waterproof :   | 2,400  |
| One PVC pipe, diameter int : 50mm, length : 4m :  | 3,400  |
| Forty cylindrical rubber pieces cutted in old type, Ø : 30mm x 30mmH for making the pistons at rate of FCFA 350/pièce | 14,000 |
| One second hand inner tube, for making the membranes above pistons :  | 200    |
| One steel pipe, O int : 50mm x 1.50 m, + one steel conical - shaped funnel style of 2mm Thickness :                   | 1,300  |
| One iron rod, length needed : 8.50 m, for making the pipe support frame :   | 1,500  |
| Frame painting, 500 grams :   | 800    |
| One tube of 125 grams of PVC glue :   | 1,340  |
| One kilo of nails of various lengths :  | 1,000  |
| One coil of galvanized iron wire, Ø : 3.5mm :   | 2,440  |
| Carpenter assistant : 4 working days x 1500 FCFA/ day   | 6,000  |
| Total in FCFA   | 60,000 |

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