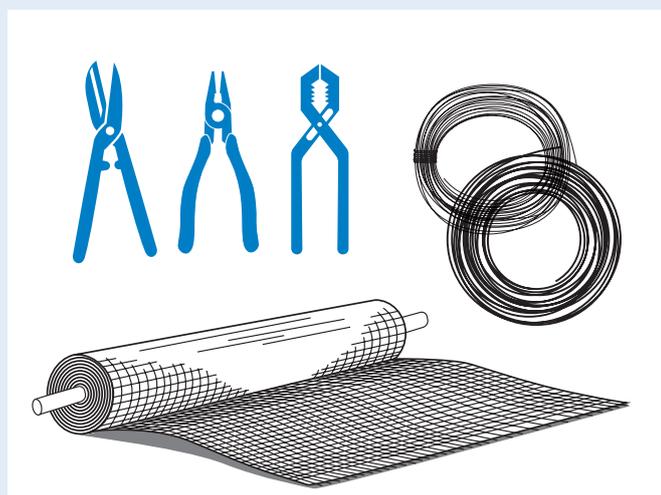
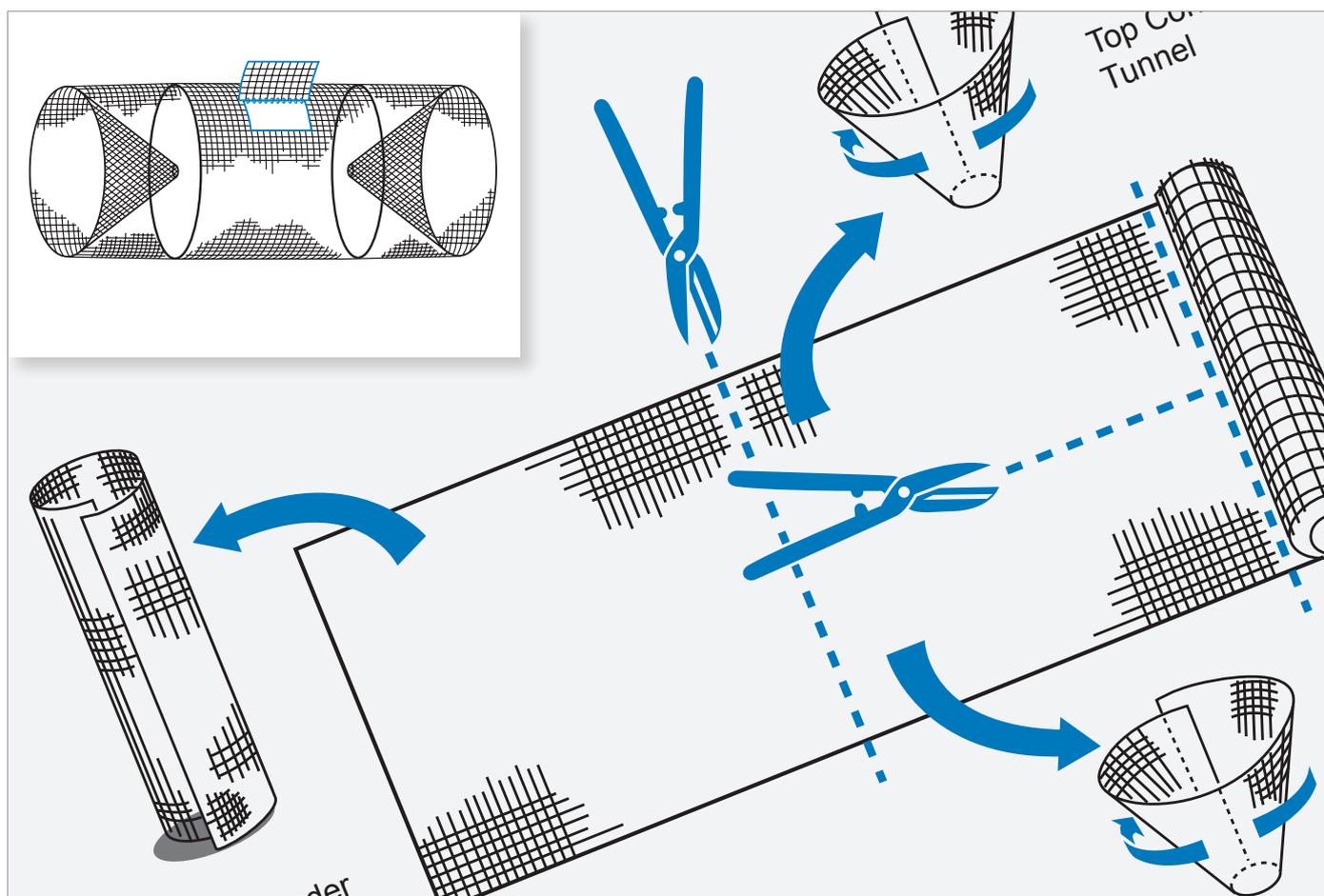


Making and using the fish trap

This short technical manual contains essential information and instructions for the construction, use, and maintenance of the mesh-wire fish trap for intermittent harvests in rural aquaculture.

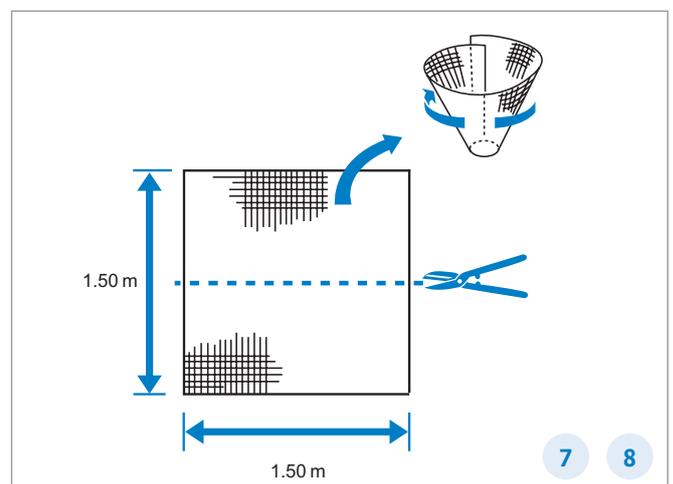
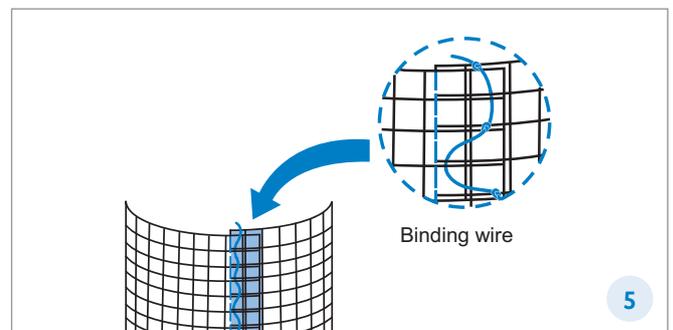
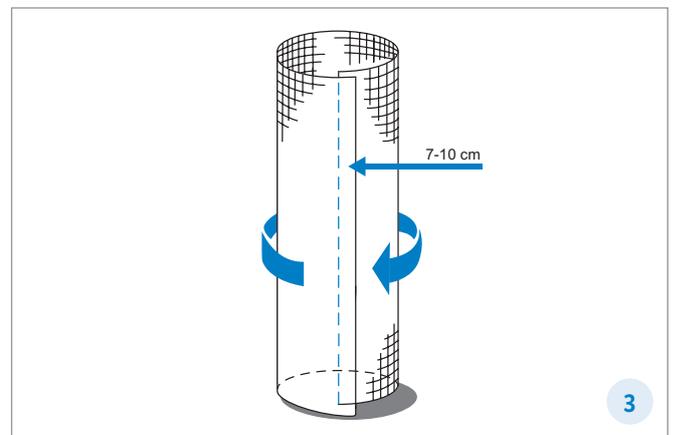
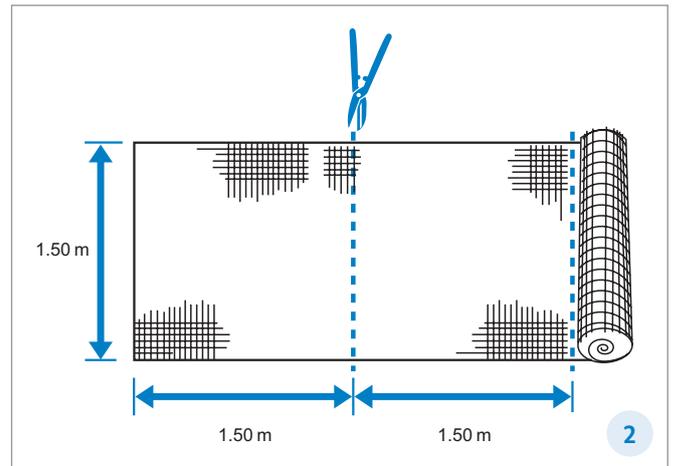


Materials and tools:

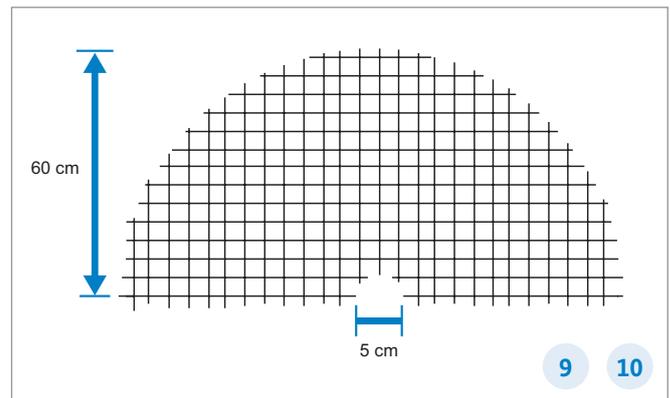
- Wire cutters and a pair of pliers.
- A roll of wire mesh, 18-20 gauge (about 1 mm). It should be at least 3.6 m (12 ft) long and 1.5 m (5 ft) wide.
- Stainless binding wire of 18 gauge (about 1 mm). About 12 m (40 ft) is needed per trap.
- 10-gauge (about 2.5 mm) stainless wire. About 2 m (6.5 ft) is needed per trap. This wire forms the skeleton and is required to reinforce the cylinder or outer shell.
- Cord with length of 60 cm (2 ft).

Instructions

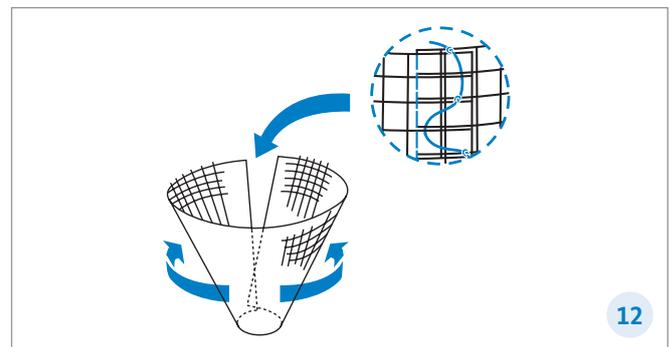
- 1 Take the 3.6 m (12 ft) wire mesh and, using pliers or wire cutters, cut a strip measuring 0.6 m (2 ft) by 1.5 m (5 ft). You now have a large piece of wire mesh measuring 3 m (10 ft) by 1.5 m (5 ft) and a strip measuring 0.6 m (2 ft) by 1.5 m (5 ft). Put the strip aside; you will need it later.
- 2 Take the 3 m (10 ft) by 1.5 m (5 ft) wire mesh. Cut it into two 1.5 m (5 ft) by 1.5 m (5 ft) squares. Put one piece aside and continue with the other piece.
- 3 Roll the square so that it forms a cylinder. The two opposite sides that you want to bring together to form the cylinder should overlap about 7-10 cm (3-4 inches).
- 4 Cut about 2.4 m (8 ft) of the binding wire with the pliers.
- 5 Intertwine the overlaps of the cylinder very well with the binding wire. Make several loops and knots so that the trap becomes firm and strong. If necessary, use pliers for this purpose.
- 6 You should now have a 1.5 m (5 ft) tall cylinder with a diameter of about 0.5 m (1.5 ft). Set it aside.
- 7 Take the 1.5 m (5 ft) square piece of wire mesh (that you set aside) in the second step to make two funnels.
- 8 Cut the square piece of wire mesh into two equal pieces. You will have two rectangles, each about 1.5 m (5 ft) long and 0.75 m (2.5 ft) high.



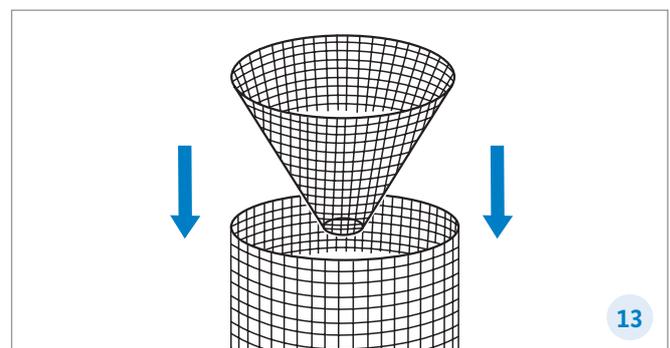
- 9 Take the cord with the length of 60 cm (2 ft) and the wire cutters and cut a semicircle from each rectangle.
- 10 You now have two semicircles 60 cm (2 ft) high. To taper the funnel, cut out a small semicircle for each. Its size depends on the size of the fish you want to catch. To catch small fish from 6 g - 25 g, the radius should be 2.5 cm (1 inch).
- 11 Cut about 2.4 m (8 ft) of the binding wire and divide it into two 1.2 m (4 ft) long pieces.



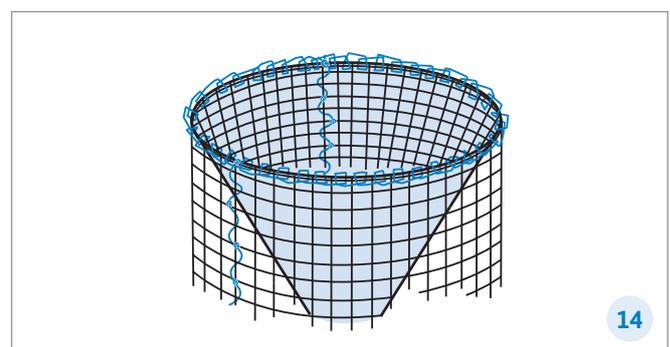
- 12 Take one of the semicircles, form it into a funnel whose large diameter corresponds to that of the cylinder (i.e. about 0.5 m or 20 inches) and use one of the binding wires to intertwine the overlapping sides of the funnel with each other. Then take the other half circle and use the second binding wire to intertwine the overlapping sides of the second funnel as well.



- 13 Insert one of the funnels into one of the open ends of the cylinder so that the narrow end of the funnel faces inward while the wide end sits on the circumference of the open top of the cylinder.



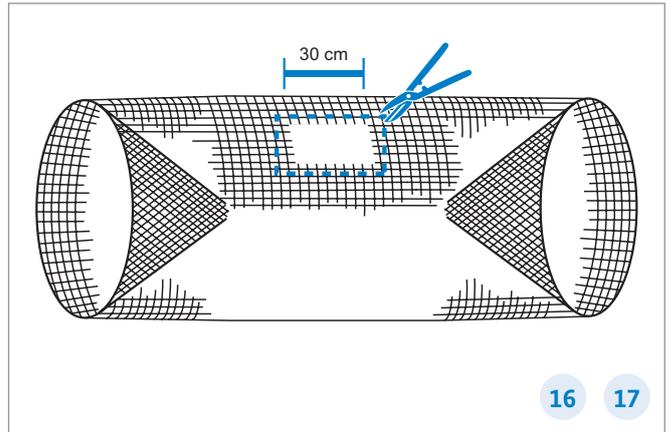
- 14 Cut about 3.6 m (12 ft) of the binding wire, then cut it into two 1.8 m (6 ft) long pieces. Braid the funnel and cylinder together with one of the 1.8 m (6 ft) long pieces of wire around the opening of the cylinder and cut off any excess wire.



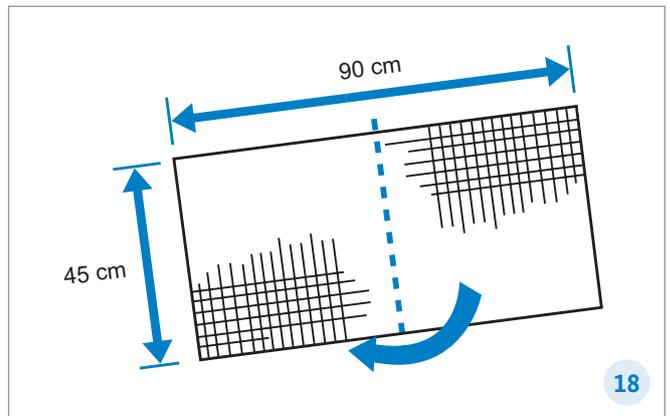
- 15 Take the second funnel and proceed with it as in step 14.

16 You now have a cylinder with funnels embedded at the ends. If you have followed the instructions correctly, there should be a gap of 0.3 m (1 ft) between the two funnels.

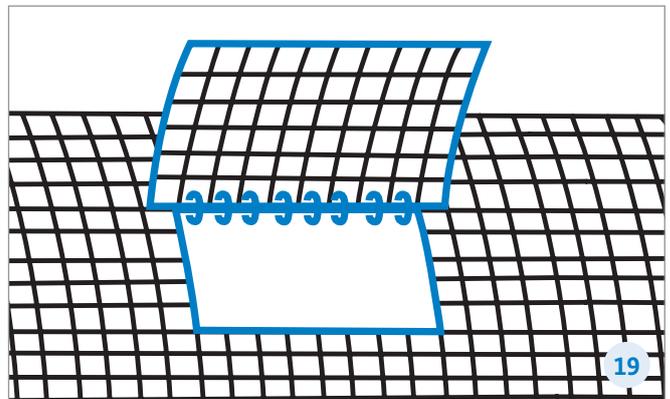
17 Cut a 0.3 m (1 ft) square opening from the curved surface of the cylinder between the tapers of the embedded funnels.



18 Cut a 0.9 m by 0.45 m (3 ft x 1.5 ft) rectangle from the remaining 0.6 m by 1.5 m (2 ft x 5 ft) strip of wire mesh (from step 1). Fold this rectangle in half to make a 0.45 m by 0.45 m (1.5 by 1.5 ft) square. This will serve as the door to the opening made above, so it must be very sturdy.

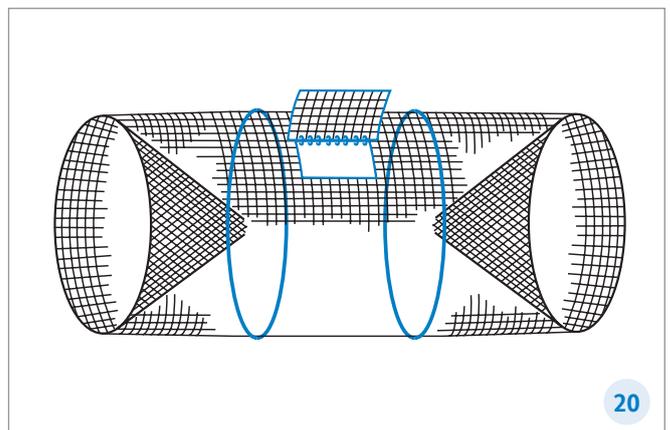


19 Cut about 2.1 m (7 ft) of the binding wire and use it to secure the door to the opening. Note: The trap door is used to facilitate access to the trap to place bait or remove a catch.



20 Take the wire of 10-gauge wire (about 2.5 mm), cut it in half and intertwine each of the wires around the outside of the cylinder. These two rings will serve to reinforce the cylinder and attach lines for laying out the trap.

21 From the leftover wire mesh you can build a bait tube, which you attach to the inner wall between the two funnels of the trap. Alternatively, you can use a small net to hang a bait bag in the trap.





Picture: Family using the trap to catch fish.

Use

Secure the fish trap

Before heading for the pond or fish culture area, tie a short rope (0.6 m to 0.9 m or two to three feet) on one end and a long rope about 4 m on the other. These ropes are very important because they ensure that your trap can be safely retrieved from the water, and the long rope also serves as the locator of the trap. For that reason, it is advisable that you purchase strong and durable ropes, preferably an anchor rope from your nearest market or shop. Lines produced from worn out car tires is equally durable. On the loose end of the short rope, tie the anchor that will hold your trap under the water. That done, secure the loose end of the long rope around a tree or a shrub along the edges of the pond or culture facility. Lastly, drop the rope with the anchor and carefully place the trap in the pond or fish culture facility. Mark the location of your trap (e.g. with a stick) so you can easily find it. Ensure that neither of the funnel openings are not obstructed by the pond or culture facility wall to prevent obstructing fish from entering the trap.

Bait

For the best results, use the feed that the fish are used to. This is either formulated feed or cooked maize bran or madeya (etc.). Fill the bait tube with either of the products wrapped in a soft gauze netting and attach inside the trap attached with a rope.

Location

The best place to set the trap should be areas in the pond which are frequented by fish. For small fish including juveniles, set the trap along the edges of the pond. For fish bigger than finger-lings, set the trap in deep portions of the pond or culture facility. For ponds bigger than 200 m² it is recommended to set more than one trap to increase fishing pressure and improve the catch. Another method to improve the catch is to let the fish starve before setting the trap with the bait inside.

Time and timing

You can set your traps any time of the day and still get good results. Experience from using traps in ponds shows that feeding activity for non-catfish species ceases at night and therefore the best time for using traps in fish culture facilities is during the day. To ensure the caught fish are harvested in good condition, traps should be checked at least every two hours.

Maintenance

Untreated non-corrosive wire mesh will rust over time. We therefore recommend drying the trap quickly and thoroughly after use. If the weather is suitable, the trap can also be dried in the sunlight. Always store the trap in a dry place. If needed and feasible, you can scrub the wire mesh with a brush to clean and remove rust.

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