

Subsidies, not Buy-backs: Dagua Nets at Lake Victoria

MultiTip Policy Brief #5

Florian Diekert, Tillmann Eymess, Timo Goeschl, Santiago Gomez-Cardona, Joseph Luomba



Policy makers at Lake Victoria have discussed buy-back programs for illegal gear to solve compliance issues in the Dagua fisheries. But buy-back programs create problems of their own. When fishers can sell their illegal nets to the government for a profit, the program simply increases illegal net production. A new study shows that there is an effective alternative: a subsidy program for legal nets. Offering a 20% price discount on the price of legal nets makes half of all dagaa fishing operations at LV comply with mesh-size regulations. This is the result from research at 20 landing sites in Tanzania using an innovative methodology.

Key Insights

- 1. Buy-back programs for illegal gear have unwanted side-effects:** When fishers receive money to turn in their illegal nets, policy makers hope that non-compliance decreases. But what sounds like an appealing approach to fight illegal fishing practices can backfire and waste governmental budget. Most buyback programs fail. One reason is that because nets can be sold to the government for a profit, buyback programs simply increase illegal gear production.
- 2. A subsidy program for legal gear is an effective alternative:** At the current market price, less than 20% of all dagaa operators have demand for legal fishing nets. However, when legal nets are cheap enough, demand increases drastically. At a 22% discount of the market price, 50% of all dagaa operators buy a legal net. Compliance increases to up to 75% when nets are offered at half the market price.
- 3. With a subsidy program for legal gear, illegal gear use is no longer profitable:** After illegal nets wear out, dagaa operators will replace them with legal nets if they

are offered at a discount. The subsidy program compensates the operator for the productivity loss of using a net with a larger mesh size: Illegal gear use is no longer profitable.

4. Increasing compliance to 50% of all dagaa operations at LV will probably cost no more than \$350,000 in subsidies per year:

Conservative estimates suggest that the lake-wide compliance rate with the mesh-size regulation in the dagaa fishery can be increased from around 30% to 50% with a budget of no more than \$350,000 per year. A 75% take-up rate will need a budget of around \$1 million per year. A higher target take-up rate of legal nets will generally necessitate a higher budget, see Figure.

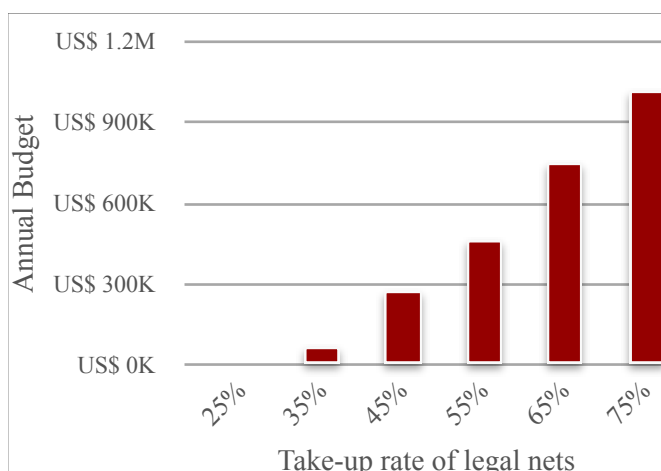


Figure: Estimated yearly budget for lake-wide take-up rate of legal nets

5. A successful subsidy program makes monitoring and enforcement less costly:

Policy makers can expect that compliance with gear regulations is higher with a subsidy program for legal gear. Illegal gear use becomes less profitable. Non-compliance decreases. With more compliance, the need for a monitoring and enforcement budget is reduced. Also, a subsidy program supports the livelihood in fishing communities by incentivizing compliance instead of punishing non-compliance.

Methodology

In November 2021, researchers from Germany and TAFIRI conducted a joint field intervention at 20 landing sites in Tanzania. With a novel multiple price list approach for multiple units, the study is able to precisely calculate the demand for legal nets. Interpreted with respect to the market price for legal nets, the necessary discount is estimated.

Reference:

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