



Fishing with Mobile Nets

Promoting the Economic and Social Development of Traditional Fishermen through Mobile Technologies

The Fishing with Mobile Nets program uses advanced wireless technologies, digital content and a virtual community platform to promote the economic and social development of traditional fishermen, women and youth in 13 vulnerable fishing villages in Colombia. Fishing with Mobile Nets provides participants with 3G or 4G LTE connected tablets and smartphones, as well as customized applications and training to support mobile education, improved business practices and the development of new economic activities. The goal is to reduce poverty by raising productivity and income in these underserved communities.

Challenge

- The participating communities are populated mainly by small-scale, traditional fishermen of African descent, earning an average monthly income of US \$74. Only 54 percent of community members have a primary level education and 27 percent have attended secondary school.
- The fishermen lack training to learn other income-generating activities and the knowledge to create modern, systematic fish production processes. Generally, these fishermen and their families are without access to mobile technologies and unaware of the benefits of using them.
- These fishermen catch fish, mollusks, crustaceans and other species using traditional or artisanal techniques such as nets, hand lines, traps and baskets. Most of them make day excursions with a two or three-person crew and operate within five nautical miles of the coast – without navigation systems.
- Climate change and industrialized fishing have caused a significant decline in the number and diversity of species in local marine ecosystems, reducing the catch and profitability of traditional fishermen and making it increasingly difficult for them to earn a living. Due to diminishing incomes from artisanal fishing, fewer young people are interested in pursuing this activity as a livelihood and traditional fishing is becoming a lost art.

COLOMBIA

2018 Statistics*

Population (2017 est.)  **47.7 million**

Life Expectancy (2016 est.)  **75.9 years**

GDP Per Capita (2017 est.)  **US\$14,500**

Mobile Penetration  **114.8%**

Solution

- The program adapts best practices and mobile applications from other Qualcomm Wireless Reach fishing programs in India, Senegal, and Brazil.
- Mobile devices with customized applications and mobile broadband connectivity are provided to the communities. Program participants also receive training in information and communications technology (ICT) skills, use of mobile devices and applications, leadership training, environmental education and sustainable fishing techniques.
- Fishermen use mobile tools to obtain real-time weather information, oceanic conditions and navigation assistance, enabling them to fish more effectively and safely at sea; track business expenses, inventory, sales and revenue, allowing them to strategize and increase their productivity, and upload images to an online marketplace where they can promote their products and reach more customers.
- A virtual community platform, co-created with the local fishermen and named Cardumen (Spanish for 'a school of fish'), enables program participants from various sites to share ideas, knowledge and experiences, and to create opportunities for business collaboration. The platform also provides links to relevant online courses, news and a social network to encourage interaction among beneficiaries.
- At the School of Fishermen, a collaboration with the Technical Education Institution of La Boquilla, participants learn how to grow pet fish and fish for consumption, generating a new source of income for the community and ensuring food security for their families.
- Youth and adolescents are learning technical skills, while helping sustain fishing traditions in their communities.
- In La Boquilla, a cooperative comprised of fishermen, artisan women, teachers and tour guides from the community was established to further promote the use of mobile devices and the online marketplace to improve incomes.

*Sources: CIA World Factbook (<https://www.cia.gov/library/publications/the-world-factbook/>); Mobile penetration data provided by Ovum World Cellular Information Service and based on market intelligence.

Impact



Increased Monthly Incomes by 17%

The adoption of mobile technologies resulted in an average monthly income increase of 17 percent – COP \$76,000 (US \$26) a significant amount in these communities – among participants from 2015 to 2017.



Successfully Scaled to 13 Communities

Due to the success of the initial implementation in 2013, the program has since expanded to additional traditional fishing communities along Colombia's coasts and rivers.



Creating New Business Opportunities

Aquaponic systems for fish farming have introduced new business opportunities, increasing food security for the fishermen and their families and reducing the impact of overfishing.

Program Stakeholders



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Qualcomm® Wireless Reach™

Qualcomm believes access to advanced wireless technologies can improve people's lives. Qualcomm Wireless Reach is a strategic initiative that brings wireless technology to underserved communities globally. For the last ten years, Wireless Reach has invested in programs that foster entrepreneurship, aid in public safety, enhance the delivery of health care, enrich teaching and learning and improve environmental sustainability, impacting over 15 million beneficiaries.

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