

Indigenous Communities in Bolivia's Northern Amazon: Opportunities and challenges

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Key Messages

- Introduced fish species in the Bolivian Amazon could provide indigenous communities with livelihood opportunities, but may also be a threat to their critically-important subsistence fisheries through predation and territorial exclusion.
 - Local fishery organizations can be strengthened through ongoing dialogue, leadership training, and technical assistance.
 - Engaging with local, regional and national level actors and promoting open spaces of dialogue (workshops, round table groups) can help identify common interests, resolve conflicts and support discussions on future planning.
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Community Profile

The river systems of the northern Bolivian Amazon (Pando and Beni departments) are home to a number of Indigenous groups (among them are Chácobo, Pacahuara, Takana, Cavineño and Esse Eja), who have historically practiced traditional hunting and gathering (Figure 20). A region of flood forests, upland tropical forests and savannahs, it is home to a high diversity of fish species and is considered of high ecological significance (Carvajal-Vallejos et al., 2014; Ibisch et al., 2003).

In 1996, after more than a century of colonial exploitation for rubber and Brazil nut harvesting, the Ley del Servicio Nacional de Reforma Agraria, better known as the INRA Law of 1996 for Agrarian Reform, marked the start of a process of redistribution of land to Indigenous groups, as traditional users, organised into communal tenure arrangements designated as Tierras Comunitarias de Origen (Original Community Territories, or TCOs). There are currently four TCOs in the region,

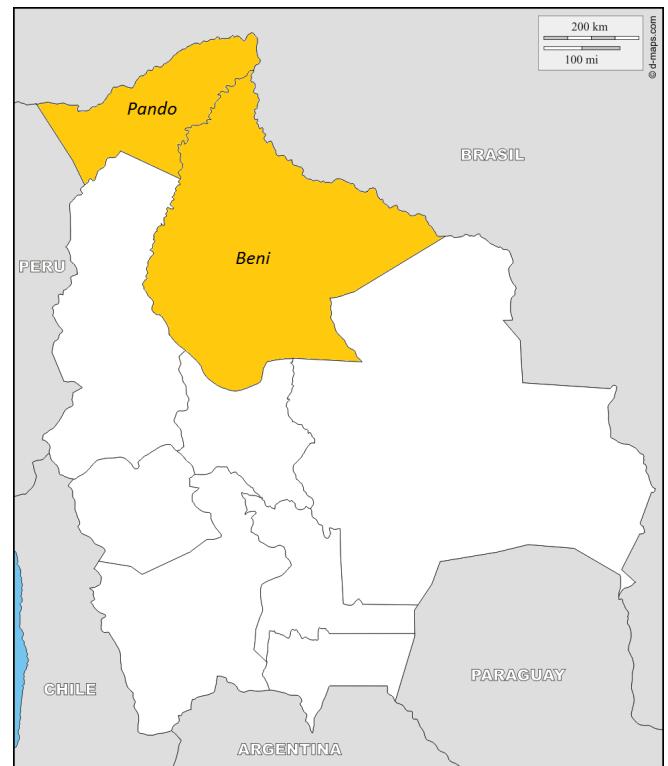


Figure 1: Map of Bolivia showing the Pando and Beni departments

established in the early 2000s, with a combined area of 1.5 million hectares, and a population of 8,200



people spread out in 93 communities, mostly located close to rivers or lakes with limited access to regional urban centres.



Figure 2: Traditional houses in Baketi community, TCO Cavineño, 2015

Photo: A. Macnaughton

The main livelihood activities in TCO communities include seasonal harvesting of Brazil-nuts, other non-timber forest products, family-based agriculture (yucca, plantain), and year-round hunting and fishing.

Regulations created at the level of the TCO establish which types of resources may be used for subsistence and/or commercial use, and recognise each community's areas to fish, hunt and harvest, with shared-access arrangements, where necessary. In most cases, there is also a need to develop more specific local and regional resource management plans.

Conservation and Livelihood Challenges

Illegal entry by outsiders for unregulated activities, such as commercial logging and fishing, poses a significant threat to resources. Additionally, high rates of poverty, food insecurity and vulnerability exacerbate local challenges (Macnaughton et al., 2016).

Fisheries based on abundant and diverse native fish are a cornerstone of local subsistence for most communities and a secondary livelihood for some. However, the future of the native species fishery is somewhat uncertain, due in large part to an introduced species, paiche (*Arapaima gigas*). The world's largest scaled fish, paiche was brought in 1965 to the headwaters of Madre de Dios River (Peru) (Carvajal-Vallejos, 2011). This air-breathing and fast-growing fish has spread into a significant portion of the Bolivian Amazon (Carvajal-Vallejos et al., 2014) and is now relatively abundant in lakes and river eddies. In other parts of the Amazon Basin, where it is native, paiche is an iconic species with high commercial value, a history of over-exploitation and some successful community-based conservation initiatives (Castello et al., 2011). Although paiche are not native to Bolivia, they remain sensitive to fishing pressure.

Since the 1990s, unmanaged commercial fisheries in the Bolivian Amazon have been rapidly increasing; current production is estimated to be upwards of 7,000 tonnes per year. The rapid expansion is largely attributed to increasing paiche fisheries.

To date, few Indigenous communities take part in the commercial fishing of paiche on a regular basis, despite the need for income-generating opportunities and high, unsatisfied demand for fish in regional markets. This behaviour may be due to a variety of factors, including cultural norms, distance from and access to markets, inadequate equipment (nets) poor access to cold-storage (ice) and low returns to producers.

Urban-based fishers from the main regional port of Riberalta now target paiche almost exclusively and sometimes invade TCOs to access the lakes where paiche is most abundant. Such activities have contributed both to conflicts and to new opportunities for trade, although equity remains a concern (Salas & Macnaughton, 2015). For TCOs, paiche could be a livelihood opportunity, but may also be a threat to critical subsistence fisheries through predation and territorial exclusion.



Community Initiatives

Since 2011, the Indigenous communities have engaged in research with the Asociación Faunagua, World Fisheries Trust and the University of Victoria (Canada) to better understand the fisheries situation, and identify pathways to improve livelihood and food security in the region. Much of this work has focused on the paiche, providing key information on abundance and impacts, as well as potential for development. So far, these efforts have provided important information on:

- Nutritional status and food security of rural and urban populations and key determinants, including the contributions of fish (Baker-French, 2013);
- Fisheries and other livelihood activities, and local perspectives about paiche; and
- Fishery value chains and mechanisms to improve transparency and promote greater economic equity between fishers, middlemen and markets (Macnaughton et al., 2016; Coca et al., 2012).
- There have also been a range of practical initiatives, including:
- Pilot initiatives for value-added fish production, for example, the establishment of a cooperative in one of the Indigenous communities, where paiche fillets and skins (for leather production) are produced and sold at improved prices;
- Strengthening local fisheries organisations through ongoing dialogue, leadership training and providing technical assistance, i.e. consolidation of the regional fisher association; and
- Engaging with local, regional and national level actors and promoting open spaces of dialogue (workshops, round table groups) to identify common interests, resolve conflicts and discuss future planning (Salas & Macnaughton, 2015).



Figure 3: Mapping the spread of the introduced paiche fish, community workshop, TCO Chácobo, 2015



Figure 4: Explaining local fishing areas, catch and effort, Community workshop, TCO Chácobo, 2015

Practical Outcomes

Indigenous governments in the region were able to express concerns and priorities directly to the national government through a national multi-stakeholder workshop held to discuss issues and opportunities surrounding paiche. This was also an opportunity to meet with representatives of commercial fishing.

Subsequently, the Ministry of Environment passed an administrative resolution for paiche fishery regulation and management, authorising paiche



fishing in protected areas (PA) and TCOs as a conservation measure to protect native fauna.

While the presence of paiche and associated concerns about how to manage them has contributed to a significant increase in public attention to the fisheries sector in Bolivia, there is still a need for greater attention to the specific situation of Indigenous fisheries. Notably, in terms of development and implementation of resource management plans within the current TCO system, including monitoring. Enforcement of exclusive access to aquatic resources must also be improved to better protect resources and/or benefits to Indigenous people.

Specific needs for the Indigenous communities include:

- Capacity-building for communities and local organisations to identify and articulate local needs and priorities for development and conservation.
- Development and implementation of resource management plans and other governance tools at a local level.
- More effective engagement in regional planning.
- Support for greater transparency, communication and cooperation between agencies responsible for regulating fishing and fish markets.
- Improving returns to fishers, for example, through value-added opportunities or improved pricing structure.



Figure 5: Fisheries based on abundant and diverse native fish are a cornerstone of local subsistence for most communities and a secondary livelihood for some. Photo: A. Macnaughton



Figure 6: Preparing roasted tucunaré (peacock bass), a traditional dish, TCO Cavineño, 2015

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Our website is home to community stories from around the globe, short documentaries and our book:

'Communities, Conservation and Livelihoods'

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