



## **Sustainable Hydropower Plant at Reventazón River in Costa Rica and Biodiversity Protection**



### **Sustainable Development Goals Addressed**



<b>Organization, Institution or Company</b>
Instituto Costarricense de Electricidad (ICE), Costa Rica
<b>Location of project site, Country</b>
Costa Rica
<b>Brief narrative description of objective/project/activity/initiative</b>
<p>Costa Rica’s National Power Company (Instituto Costarricense de Electricidad, ICE) planned and built the Reventazón Hydroelectric Dam and Power Station between 2012 and 2016 on the Reventazón River in Limón Province, Costa Rica. With a height of 130 m and 8 km long reservoir holding 3 million m<sup>3</sup> of water, Reventazón is the largest hydropower project in Central America. The power station has an installed capacity of 305.5 MW, sufficient to provide power for some 525,000 homes.</p> <p>Reventazón was partially funded by the Inter-American Development Bank (IDB) and the International Finance Corporation (IFC) and planned to meet all essential hydropower sustainability criteria. Villagers that needed to be resettled were fully compensated, with programmes ensuring improved livelihoods.</p>
<b>Economic, environmental and climate benefits, challenges and lessons learned</b>
<p>During the planning phase, comprehensive studies were undertaken to assess the potential impact of the project on Costa Rica’s rich biodiversity. In order to protect the unique flora and fauna of the region, ICE, IDB, and IFC developed and realized a biodiversity protection “off-set approach” by way of implementing a comprehensive programme to protect water quality and environmental characteristics at a similar nearby free-flowing riverine habitat, including the Parismina and Dos Novillos rivers.</p> <p>The programme involved some 16 communities and more than 6,500 residents, many of whom were small-scale farmers. The programme included measures to promote sustainable agricultural practices, development of local plant nurseries, reforestation, improved water resources management, as well as measures to reduce erosion, sedimentation, and pesticide use in agriculture, and the related run-off.</p> <p>The regional environmental protection programme also included measures of zoning to separate farmland from nature conservation areas, and to re-establish and protect biological (sub)corridors that enable the migration of wildlife, including Jaguar, as well as migratory aquatic species. The biodiversity protection corridors connect the Tortuguero National Park on the Atlantic coast and the central mountain range. Considerable investments were made during</p>

the start-up phase, and an annual budgetary contribution of about US\$1 million is provided to contribute to recurrent programme implementation costs.

The Reventazón Hydropower Plant in Costa Rica has been named the winner of the 2019 International Hydropower Association Blue Planet Prize, a prestigious award which recognises excellence in sustainable hydropower development.

**Additional information: website addresses and contacts**

Sources: The case study is featured in the IHA publication: *Better Hydro: Compendium of Case Studies 2017*, and on the IHA website: <https://www.hydropower.org/blog/better-hydro-protecting-biodiversity-at-reventaz%C3%B3n-costa-rica>

Reventazón Protocol Assessment Report (Final)

<https://static1.squarespace.com/static/5c1978d3ee1759dc44fbd8ba/t/5d7117e2bb767d000140a05c/1567692821693/Reventazon+Assessment+Report+Sept+2017.pdf>

IFC website: “Dogs help cats in Costa Rica”

[https://www.ifc.org/wps/wcm/connect/news\\_ext\\_content/ifc\\_external\\_corporate\\_site/news+and+events/news/dog+helps+cats+in+costa+rica](https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/dog+helps+cats+in+costa+rica)



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