

Neil Borland

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JJCF Final Report – The Mountain Institute, Huaraz, Ancash, Peru

As I write my final correspondence with JJCF, I look back on what was an incredible experience in Peru. My final 2 months in Huaraz were extremely busy. I performed field work, conducted last interviews, and talked extensively with experts on bioremediation both in Huaraz and in the United States as I finalized designs and a proposal for the use of bioremediation in the Campesino Community of Canrey Chico.

My final report delivered to The Mountain Institute will serve as a road map outlining the execution of a bioremediation project on the contaminated Rio Negro, the primary source of fresh water for Canrey Chico, if and when The Mountain Institute decides to go forward with the project and funding can obtain funding. This report (full version attached) outlines the science behind bioremediation, discussing how it functions and why it is a viable and affordable option for Canrey Chico. Case studies into the use of bioremediation in similar environments elsewhere in the world are analyzed to examine the feasibility of using bioremediation at extreme altitudes (Canrey Chico is situated at about 4000 meters above sea level). The report goes on to give general technical design plans for a bioremediation system on Canrey Chico's river, the Rio Negro. This section includes 3-4 basic design proposals which could be adapted if certain obstacles arise in the execution of the project, such as budget constraints or the inability to receive construction permits in the adjacent national park. Next, I outline an educational component of the project, which would put into place workshops for the community and classes in the local school to raise awareness about water contamination and how to properly use natural water sources. This component is critical to the long term sustainability of the project. The report continues with a discussion of how the process of building the bioremediation system would be used as a pilot project for the entire region of Ancash. Various other communities in the local Three Watersheds Commonwealth suffer from similar water contamination problems, and if the process of building and monitoring a bioremediation system could be recorded in a guide of sorts for the Commonwealth, it could aid the spread of bioremediation as a low cost method to treat contaminated rivers and streams. Finally, the report concludes with a list of potential sources of project financing - ranging from international aid organizations, government aid programs like USAID and international philanthropies like the Gates Foundation.

My experience in Peru with The Mountain Institute was made a particularly great experience by the great treatment I received as a guest of TMI. My coworkers were welcoming, appreciative, supportive, and became true friends by the end of my time there. I would be remiss not to mention the true quality of the organization and those who work for it. Finally, I will give another massive thanks to the Jessica Jennifer Cohen Foundation, without whom this experience would not have been possible.

Thank you so much for your support for my time in Peru and please feel free to contact me at any point if you would like to hear more about my experience. I would be happy to provide the Foundation with a more elaborate write up of my experience if it might be helpful.

Sincerely,

Neil Borland