

Nicaragua Faces Climate Change

by Bruce Wilkinson

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This June the Nicaragua Network delegation of seven people lead by Paul Baker, went down to explore the country's efforts around Climate Change, Water and Sustainability. The entire world is facing huge climate change challenges and the poorest countries that caused the least greenhouse gases (Nicaragua is responsible for 0.03% of the world's greenhouse gases) are burdened often with the most negative effects. For Nicaragua this means less water and rising temperatures with coffee producing regions, for example, shrinking to a much, much smaller section of the country.



Wilkinson (in gray hat) and other members of the delegation received an overall briefing by Jorge Capelan (black cap) of Radio La Primerisima. Photos by Helen Jaccard.

Climate change ties in with our look into water issues. Right now there is plenty of water but most of the water is on the Atlantic coast side while the majority of the population is on the Pacific coast. This means that despite having an abundance of water generally, there are reports of rivers going dry for the first times because of climate change plus irrigation. Meanwhile, the new canal might exacerbate water problems with some saying that there must be a choice between using water for irrigating and drinking or for the canal. There are a lot of solutions being put forward by the government right now to deal with these issues.

The biggest change is the massive reforestation work that seems to be going into effect that has not yet slowed down deforestation rates but may soon. Small farmers are still using slash and burn agriculture but there is promotion of agriculture that preserves forest canopy and decreases the need for water irrigation. We met with several organizations that worked on this issue, CIPRES was especially effective. Their mission is working with small farmers linked together in a cooperative of small cooperatives numbering in the thousands with a solidarity model to ensure financial solvency of farmers with ecological sustainability, quality of life and social relations which promote equal opportunities and participatory integration of people, organizations and communities. CIPRES was the organization that for many years promoted a program to give small farmers chickens, a pregnant pig and a cow and when the Sandinistas came back into power they made the small program a national government program that has seen huge benefits for the country.

Many people in the delegation were amazed at the promotion by the government of appropriate technologies. Susan Lagos, who went on the delegation and owns a small farm near Ciudad Dario, has helped install a dozen biodigesters in her community. Biodigesters take manure and turn it into natural gas for 5 hours worth of cooking gas a day needing only the addition of a bucket of half manure and half water added to the biodigester each day. Another project was the Solar Center where solar systems were being made in a participatory process for communities that don't have electricity. Along with solar power, there is the development of solar cookers, which are great for cooking beans. We also saw examples of rocket stoves that burn wood more efficiently with less smoke and less need for gathering wood. One

campesino said that by having alternatives to an inefficient wood stove he saved a month's worth of work time spent gathering wood each year.

The shipping canal will change Nicaragua forever. The overwhelming majority of the public supports the building of the canal and the \$40 billion development deal that surrounds it. There are estimates that the agreement with the Chinese corporation will provide 400,000 new jobs. To put that in perspective, formerly the biggest development project was \$300 million. However, not everyone is happy about the deal and some people have environmental and process concerns while many expect that the project may not ever be fully completed.



We met with the director of the Alexander Von Humbolt Center, an non-governmental organization for the promotion of territorial development and environmental management. Victor Campos expressed concerns about the project. One of the major concerns is around water and the route of the canal possibly through the great Lake Cocibolca (Lake Nicaragua) which has an average depth of 12.5 meters whereas the canal will be need to be 30 meters deep. This would mean that there would need to be built a canal through the lake plus the ecological

harm of ships going through the fresh water lake that is used for drinking and irrigation. The Sandinista government is meeting with concerned environmental groups but it remains to be seen if promises of sustainable development will win out.

While we were in Nicaragua there was a small opposition protest of less than 100 people against the proposed canal. Some of the concerns are that the canal deal was signed and completed before the environmental assessments had been made. While the assessments will go forward, the corporation seems to have a contract that gives it strong decision-making power. The breadth of the contract is also very large and includes an international airport, an Atlantic-side deep-water port, a Pacific-side deep-water port, cross-country rail and electrical power development. Right now the corporation only has raised a small proportion of the billions needed and there is the possibility that other parts of the contract will be built piecemeal as financing is found and the canal may not ever be built.

Paul Baker said that Nicaragua offers a lot of hope for the future and that is what we witnessed. The only solutions to climate change and sustainability is found through socialism. Nicaragua's socialism is tied to the land and its ecological wealth is preserved when the *campesino* retains a dignified good life. Many indicators show that life is improving in Nicaragua but witnessing that improvement first hand and sharing that knowledge of the country's success back at home may be the best way to change the world.