In 2008, some 600 people in Chichigalpa, a small agricultural town in Nicaragua, wrote to the CAO complaining of an epidemic of chronic kidney disease among current and former workers of Nicaragua Sugar Estates Limited (NSEL), an IFC client and operator of an agro-energy complex. Many of those affected are members of the Chichigalpa Association for Life (ASOCHIVIDA) and believe that this life-threatening disease is caused by exposure to agrichemicals used by NSEL’s Ingenio San Antonio (ISA) sugar refinery, a claim which the company has strongly denied.

Initiation of Dialogue and Research into the Causes of Chronic Kidney Disease

Confronted with a desperate situation for sick and dying workers and their families, the CAO convened a dialogue table in November 2008 composed of representatives from ASOCHIVIDA and NSEL to address the issues. Initially, the parties developed a shared set of goals: first, to understand the cause of the disease in a way that was trusted and credible to both sides; and second, to provide humanitarian support, including medical attention, to former workers with the disease.

The first agreements reached were grounded in a sense of urgency and responded to the priorities identified by ASOCHIVIDA to deliver basic goods and services to those affected by the disease. The company is providing food for almost 2000 community members and a micro-credit facility to support income generation projects. In addition there has been assistance to local health facilities. These projects support members of ASOCHIVIDA who are suffering from kidney failure and unable to work, as well as those with family members who have died from the disease.

Meanwhile, dialogue table participants identified two questions to address the root cause of the disease: Why were community members getting sick, and was there a correlation between the disease and the operations of the San Antonio sugar refinery? Both the company and ASOCHIVIDA wanted a credible, independent scientific team to investigate whose conclusions and recommendations could be trusted. Through a competitive process facilitated by the CAO, the parties together in April 2009 selected Boston University School of Public Health from a pool of nine highly qualified institutions to conduct an epidemiological scoping study (Phase I).

Findings of Boston University’s Independent Scientific Study

Boston University’s study aimed to assess the level of knowledge concerning chronic kidney disease, whether its cause in Nicaragua was known, and what activities could address data gaps and determine whether the company’s practices contributed to the occurrence of the disease. For its part, NSEL opened its medical records and facilities to unprecedented external scrutiny. Boston University completed the epidemiological scoping study in late 2009 and concluded that there was some association...
between some occupations (including agriculture and mining) and the prevalence of the disease in the Pacific zone of Nicaragua. However, it is not known whether this association is causal. Boston University recommended a series of follow-up activities (Phase II), which dialogue table participants agreed to in January 2010.

Phase II focused on deepening research into the possible relationship between the disease cluster and current work practices and/or exposure to agrichemicals used by the San Antonio sugar refinery. The research included an occupational health assessment and environmental sampling for a large number of contaminants at locations around the San Antonio sugar plantations which were of primary concern to community members. Boston University presented its findings to dialogue table participants in September 2010. They found “…that none of the current work practices or the chemicals used by ISA are generally accepted causes of CRI1. This conclusion does not rule out the possibility that one or more of these agents might in fact cause CRI, but new scientific knowledge and insights will be necessary to establish whether any link actually exists. To develop this new knowledge, subsequent phases of our work will focus on gathering additional exposure and health data and investigating their possible connection to CRI both within ISA and in other areas of Western Nicaragua.” The findings confirmed that none of the chemicals analyzed were present in concentrations above US Environment Protection Agency (EPA) criteria for drinking water and were not believed to be harmful to human health at the time of sampling.

**Next Steps through 2011**

Dialogue table participants have now requested Boston University to prepare a research plan through the end of 2011 (phase III). This third phase will continue research into the causes of the disease and help develop the capacity of ASOCHIVIDA members to understand the research while broadening the focus to engage more national institutions.

The CAO dialogue process was initiated to address a specific dispute between NSEL and ASOCHIVIDA. There is growing evidence that this disease is a problem in other regions of Nicaragua as well as in other Central American countries. Addressing an issue of this magnitude will require a more robust institutional framework that will inevitably be linked to policy makers. This aspect is beyond the immediate mandate of the CAO.

For 2011, we hope that the dialogue process can play a catalytic role in helping interested investigators and public health officials create a national framework for research into the causes of chronic kidney disease. During this year, we also hope to continue focusing the dialogue on building a cooperative relationship between NSEL and ASOCHIVIDA that delivers tangible and significant improvements, including opportunities for improving health care, for the affected community in Chichigalpa.

More information about this case is available at: [www.cao-ombudsman.org](http://www.cao-ombudsman.org)

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1 Chronic Renal Insufficiency (CRI) is also commonly referred to as Chronic Kidney Disease. The terms are used interchangeably.