

## **Coffee for Justice: Chemistry and Engineering in Service to the Jesuit Mission with Small-holder Coffee Farmers of Nicaragua**

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### **Abstract**

This chapter describes how four academic scientists and engineers have joined on a journey with over one-hundred coffee farming families in Nicaragua as they strive to escape the economics of the Coffee Crisis and gain access to the organic and Fair Trade specialty coffee market. The project, initiated in 2003 and called Coffee for Justice, has been conducted by these faculty and student chemists and engineers working together with Nicaraguan coffee producer families and their cooperatives. Collaborating institutions and organizations have included: Catholic Relief Services/Nicaragua (CRS/NI), two Jesuit universities: the University of Central America Managua (UCA Managua) and Seattle University, and the University of Washington Bothell. The aim was to apply the group's scientific and engineering expertise using appropriate technology to the questions of the artisan coffee farmers and to put simple methods in their hands for improvement of coffee quality and market access. This contribution to Justice in Jesuit Higher Education describes the project origins, results, and methods that have arisen from addressing the questions and needs of the coffee farming community. It also describes how this research and service project has transformed its participants and continues to evolve and broaden, for example, in the design of an ecological coffee processing mill by a team of student engineers.