

This past summer thirty-five students from eleven countries gathered in San José, Costa Rica to participate in the fourth University of Florida/University of Costa Rica Joint Program in Environmental Law. In addition to classes on comparative environmental law and international environmental law, the program offered various clinic projects.

Three U.S. students (Quilla Trimmer-Smith, Thomas Ruppert, and Holly Berman) and one Costa Rican student (Gladys Martinez) participated in a clinic project related to banana production in Costa Rica.



Students and lawyers listening to representatives of Standard Fruit/Dole Fruit about practices for chemical storage and aerial spraying.

The history of banana production in Costa Rica goes back to 1880s.<sup>1</sup> While development of bananas helped integrate an otherwise forgotten part of Costa Rica,<sup>2</sup> it has also caused extensive ecological damage<sup>3</sup> and offered unstable and poor employment for the workers.<sup>4</sup> Factors which contribute to the instability of banana production

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<sup>1</sup> ROXANA SALAZAR, JORGE CABRERA, OLMAN SEGURA & ANA VARGAS, FUNDACION AMBIO, COMERCIO Y AMBIENTE: PERSPECTIVAS DESDE LA ACTIVIDAD BANANERA 32 (1994). CASA DE EMAUS, ENCUENTRO ECOLOGICO REGIONAL DE LA ZONA ATLANTICA Y SARAPIQUÍ 37 (eds. Rocío López, Carlos Acuña).

<sup>2</sup> *Id.* at 30.

<sup>3</sup> *See, e.g., id.* at 49-60.

<sup>4</sup> *See generally, id.* One particularly poignant example of how bad employment by the banana industry could be for workers in Costa Rica came in the form of the involuntary sterilization of more than one thousand banana workers by the chemical DBCP. CASA DE EMAUS, ENCUENTRO ECOLOGICO REGIONAL DE LA ZONA ATLANTICA Y SARAPIQUÍ 35 (eds. Rocío López, Carlos Acuña). Over 5 million kilograms of DBCP were imported into Costa Rica from the United States between 1966 and 1978. *Id.* Many residents of Rio Frio in Costa Rica brought suit based on these events. The case was settled out of court. In 2000, most pesticide poisonings in Costa Rica were due to work and by far the largest agricultural category responsible for poisonings was the banana sector. MINISTERIO DE SALUD DE COSTA RICA, INFORME DE INTOXICACIONES POR PLAGUICIDAS, COSTA RICA, 1999-2000, 13 (citing information from Vigilancia de la Salud, Ministerio de Salud, 2001). Although many poisonings come from unknown sources, the majority of poisonings coincide with the major banana production area of Sarapiquí. *Id.* at 7.

In addition to work-related health problems, even today workers experience repression of their right to organize and fear violence or blacklisting for asserting their rights. Interview with Carlos Argueda, Representative of SITRAP (Sindicato de Trabajadores de Plantaciones Agrícolas), July 19, 2003, Siquirres,

employment include: production of banana depletes the soil (thus encouraging periodic abandonment of areas),<sup>5</sup> diseases affecting the banana plants,<sup>6</sup> and the instability of world banana markets and protectionism.<sup>7</sup>



An airplane spraying a banana plantation for the fungus Sigatoka. This fungus is a consistent problem due to the humidity/rainfall of the area. Each area of a banana plantation is sprayed approximately once per week. The airplanes are equipped with about \$100,000 of sophisticated computer and global positioning equipment.

In addition the many social effects that unstable employment in banana producing regions have had, the ecological effects are also seldom fully appreciated.<sup>8</sup> Yet if social and ecological costs were internalized into the equation, banana production might not

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Costa Rica. See also FUNDACIÓN ARIAS PARA LA PAZ Y EL PROGRESO HUMANO, CREACIÓN DE UNA INSTANCIA COORDINADORA PARA DETENER EL IMPACTO DE LA EXPANSIÓN BANANERA INCONTROLADA: UN CASO DE INCIDENCIA 10 (1997).

<sup>5</sup> *Id.* at 32, 36-37. An example of this occurred in the 1930s in Costa Rica's southern zone of production where the Standard Fruit Company heavily applied pesticides containing copper sulfate in an attempt to control Yellow Sigatoka (a fungus affecting banana plantations). CASA DE EMAUS, ENCUENTRO ECOLÓGICO REGIONAL DE LA ZONA ATLÁNTICA Y SARAPIQUÍ 36-37 (eds. Rocío López, Carlos Acuña). Copper quickly built up in the soil, resulting in decreased soil fertility. Due to this problem Standard Fruit sold much of its land to small producers without informing them of the copper and fertility problem; Standard Fruit also abandoned much of the land that it could not sell. *Id.*

<sup>6</sup> *Id.* (noting that Panama Disease led to the almost complete abandonment of Costa Rica's Atlantic Zone of banana production within a few years of Panama Disease's arrival there in 1913). Even after abandonment of the Atlantic zone, banana production was reintroduced there in the late 1950s by the Standard Fruit Company. *Id.* This was made possible by the introduction of a banana variety resistant to Panama Disease. *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> ROXANA SALAZAR, JORGE CABRERA, OLMAN SEGURA & ANA VARGAS, FUNDACION AMBIO, COMERCIO Y AMBIENTE: PERSPECTIVAS DESDE LA ACTIVIDAD BANANERA 48-50 (1994).

appear as such a positive activity.<sup>9</sup> For example, banana production is extremely chemical dependent. High chemical usage, bare soils, and extensive drainage systems assure that runoff carries high amounts of chemicals into the water.<sup>10</sup>

We worked for a Costa Rican non-profit organization called “Justicia Para la Naturaleza” on a case which they have pending against Standard Fruit (the name behind Dole Fruit) for a case of agrochemical contamination. On January 12, 2003, a pesticide spill from a tank of Standard Fruit at an aerial fumigation airport in Batán leaked an unknown amount of pesticide into a canal near the airport. Within hours residents of a town downstream of the airport reported that the water in the canal turned white and gave off a vapor that burned their eyes and hurt their lungs. Over the next few days thousands of fish and other animals in the canals died for miles downstream from the point of the accident.



Some of the thousands of fish that are alleged to have died from a spill of Standard Fruit/Dole Fruit chemical.

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<sup>9</sup> *Id.* In fact, it has been argued that if the government of Cost Rica took a more holistic view of the real impacts of banana production, it might have worked so hard in the mid 1980s to rejuvenate production in the Atlantic zone of Costa Rica. *Id.* See also FUNDACIÓN ARIAS PARA LA PAZ Y EL PROGRESO HUMANO, CREACIÓN DE UNA INSTANCIA COORDINADORA PARA DETENER EL IMPACTO DE LA EXPANSIÓN BANANERA INCONTROLADA: UN CASO DE INCIDENCIA 9 (1997).

<sup>10</sup> See, e.g. CASA DE EMAUS, ENCUENTRO ECOLOGICO REGIONAL DE LA ZONA ATLANTICA Y SARAPIQUÍ 31 (eds. Rocío López, Carlos Acuña).

The canal passes through small towns and eventually feeds into the Pacuare River and empties into the Atlantic Ocean. Many rural banana workers depend on the affected canal and the downstream waters for drinking water, water for cooking and cleaning, as well as for fishing. Further downstream the fishing activity merges with tourism to become a major part of the local economy.

As part of its defense to an administrative case brought against it for this episode of environmental contamination, Standard Fruit presented the administrative tribunal and the communities with extensive paperwork relating to Standard Fruit's certification to ISO 14001 International Standards for Environmental Management Systems and the paperwork generated by the environmental management system for the spill in question. However, the administrative tribunal, the communities affected, and the lawyers at *Justicia Para la Naturaleza* had very little idea about what ISO 14001 is, how it works, who was behind it, and what are the legal implications of Standard Fruit's certification to the ISO 14001 standards. Our job was to investigate ISO 14001 and educate both the lawyers at *Justicia Para la Naturaleza* and the administrative tribunal about the nature and scope of ISO 14001.

We did extensive research into the history and development of ISO 14001. Our research included visiting and speaking to many different people. Standard Fruit hosted our group at their facility in Rio Frio, gave us a tour of their chemical storage warehouse, mixing facilities, and an airport from which they conduct aerial fumigations. They then took us into the banana fields where we watched aerial fumigations taking place before they gave us a three-hour presentation demonstrating their computerized environmental management system that has been certified to ISO 14001 standards.

We also visited a professor at the esteemed Instituto Centroamericano de Administración (Central American Institute of Administration) who helped to draft the ISO 14001 standards. I also had the opportunity to visit the Costa Rican Institute for Technical Standards and speak with their chief of certification about the strengths and weaknesses of ISO 14001.

Based on our research and experiences we wrote a brief for the administrative tribunal which can be viewed [here](#) [LINK: Brief for Environmental Tribunal.doc]. The tribunal has not yet decided the case, but we are confident that our work helped to dispel many misconceptions about ISO 14001 that the tribunal may have had.

We also created a simple question-and-answer booklet for local community members and organizations that wish to understand ISO 14001. The question and answer booklet may be viewed [here](#) [LINK: Citizens Guide to ISO.pdf].



Clinic students examining the chemical mixing facility at one of Standard Fruit/Dole Fruit's aerial fumigation airports.