

Transforming the Orinoquía — and the Colombian Economy

By Suresh V. Garimella and Pablo Navas

More than four years ago the two of us were honored to be part of a crucial meeting hosted by President Juan Manuel Santos to help put into place a plan to sustainably develop and transform the economy of Colombia's Orinoquía region and materially advance the nation.

There were many seated at a big table with us — representatives of the Colombian government; a Purdue University team led by president Mitch Daniels; members from the Departamento Nacional de Planeación; the Colombian ministers of agriculture, education, and treasury; as well as CEOs and university and district leaders.

Colombians have long believed that the Orinoquía has the natural resources and beauty to become a prosperous region through sustainable productive agriculture and ecotourism, thus raising the fortunes for all of Colombia.

Purdue University shares that vision and has been involved in collaborative Colombian sustainable economic development initiatives for many years. Purdue's involvement in Colombia began formally with a 2010 agreement with the Colombian government that has since expanded to include all of the country's important constituencies — government ministries, higher education, private-sector companies, farmers and agricultural organizations as well as non-government organizations.

Universidad de los Andes, through its Centro de Estudios de la Orinoquía, has been deeply engaged in related projects since that first meeting.

With the above as prologue, we are returning to that big table in June with much to discuss about the data we have gathered with our partners, the analytical modeling tools developed by Purdue researchers, and proposals for practical applications, including five pilot projects in agriculture and tourism in the Orinoquía. (A summary of the Purdue's Orinoquía Initiative report is available at the website (www.purdue.edu/colombia/partnerships/orinoquia).

Purdue University researchers in agricultural economics have gathered information on tourism and farming opportunities such as markets, labor, production costs, yields, alternative crops and cropping systems, and capital. Colombian partners have studied the physical and biological characteristics of the Orinoquía.

We have developed complementary crop and livestock models appropriate to the flooded savannahs, the Altillanura and the Piedemonte within each of the Orinoquía's departments of Arauca, Casanare, Meta, Vichada, and neighboring regions.

Further, we investigated Colombian farm management and did research on financing operations and bringing goods to market. Finally, we developed individualized models for small, medium and large farms.

For example, in the Piedemonte we considered a representative small farm with two hectares of irrigated and 15 hectares of non-irrigated land. Our case study resulted in a portfolio of complementary enterprises including pineapple on the

irrigated land, and citrus, farmed fish, mangostino, coffee and fattening of cattle on the non-irrigated land.

Development of tourism in the Orinoquía will supplement agricultural incomes, reduce rural poverty and support economic development, especially among indigenous communities. Building on Colombia's embrace of sustainable tourism for more than 10 years, we explored ecotourism, including bird watching and sports fishing, and agricultural tourism.

The Sustainable Tourism Development Model we used looks at tourism as a number of integrated parts — destinations, tourists, markets and companies in the context of local socioeconomics and politics. For the best outcomes, the parts must be part of a complementary and supportive system.

Purdue's hospitality and tourism management researchers assessed the potentials, promising destinations and development of the small- and medium-sized businesses needed for successful tourism development in Orinoquía.

In the process of our agricultural and tourism data acquisition and development of models and tools, many Colombians received training. With so much intellectual and human capital at hand, we are poised to put our proposed pilot projects into motion and together build sustainable economic development in the region.

These pilot projects are representative of the higher-level themes our engagement is targeting: agricultural production and management; post-harvest handling and processing; logistics and market structures; ecosystem and environmental management; entrepreneurship; sustainable tourism; and community leadership and development.

One of the strengths Purdue University brings to the table is its "land-grant" university heritage. The land-grant university act was originally a movement to invent a new kind of university, one that aimed at educating the working class as agriculture was mechanizing and the Industrial Revolution was revving up in the United States. The American land-grant university system established outreach and engagement services that deliver practical agricultural, technical, marketing and business information throughout the 50 states.

Today, Purdue University has grown to become a multi-disciplinary research institution with 40,000 students and learning and engagement activities that span the globe. What we believe in and do best is listening to the needs of the people and then harnessing knowledge, science and research in ways that can be meaningfully applied to improve lives.

One of the ways Purdue engagement serves Indiana's citizens is through the Cooperative Extension Service, a concept that can power the next phase of the Orinoquía Initiative.

Greater engagement between farmers and the research community is needed because, for example, the Vichada cashew farmer must not only successfully cultivate but also transport and sell his product. At the same time, that cashew farmer must have access to new technologies and be well-informed about alternative crops he could produce in order to receive a sustainable income from farming.

The Llanos bed-and-breakfast operator must not only develop her property

but also market her destination nationally and internationally. Purdue's hospitality and tourism researchers are poised to add practical value as we work together to develop sustainable tourism in the Orinoquía.

Purdue views the Orinoquía Initiative as a great gift to its researchers, as opportunities of a lifetime for its students, as a welcome to Colombian students who want to study in the United States, and a basis for mutual intercultural growth.

We have built a great foundation with wonderful collaboration by all concerned. It's time to build higher and apply our data and analysis to specific Orinoquía situations — to assess, to demonstrate, report, improve and employ our models with the objective of transforming the Orinoquia region.

Our collective vision: an Orinoquía with a prosperous, environmentally sustainable, market-oriented agriculture with ample areas for distinctive ecological and cultural tourism activities.

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