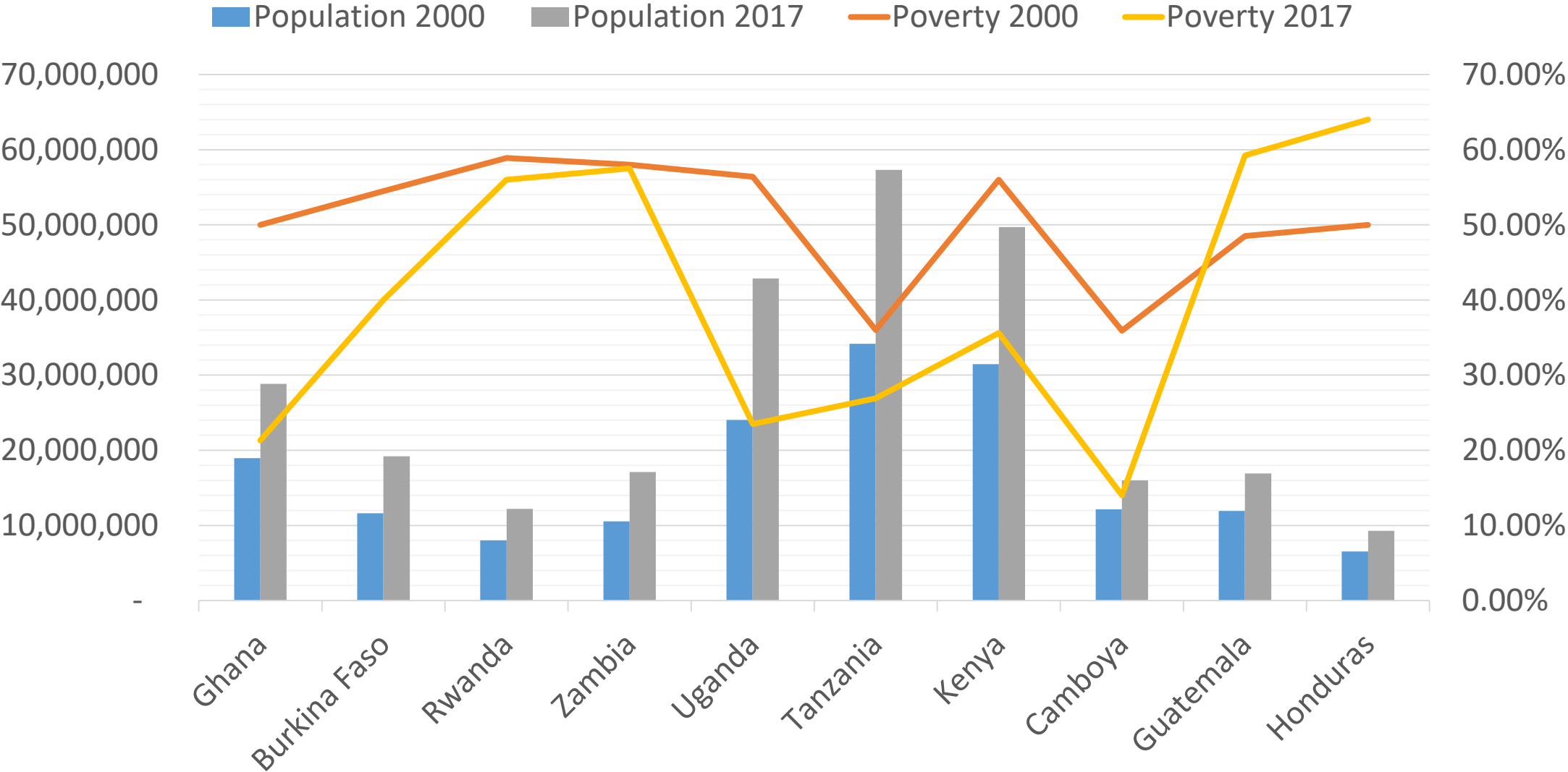


# How Academia Can Better Nourish the Future

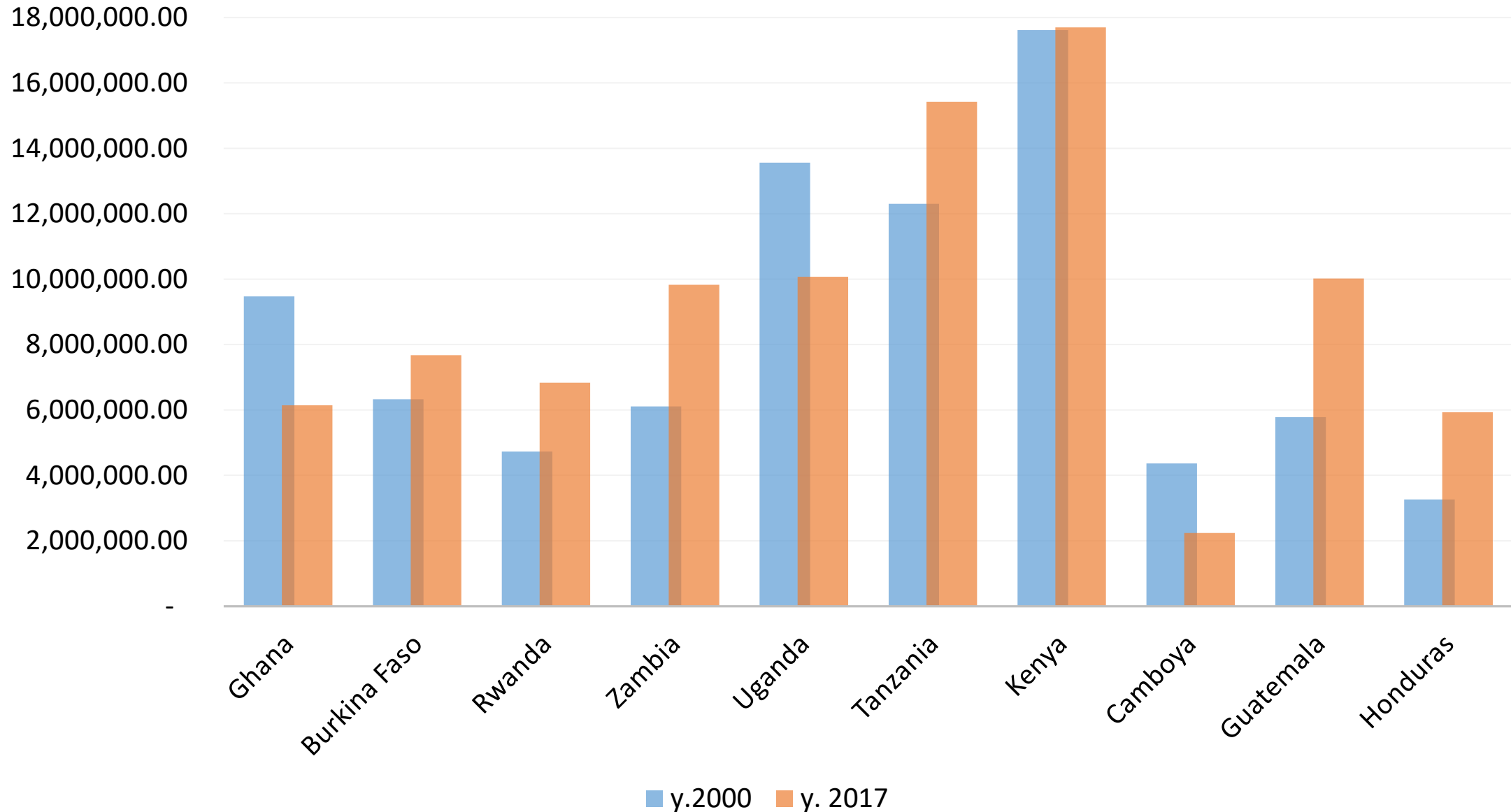
Jeff Lansdale  
March 2019



# Population and poverty in the last 17 years



# Population living in poverty



# How can academia nourish the future?

**Innovation**

**Research**

**Outreach /  
Engagement**

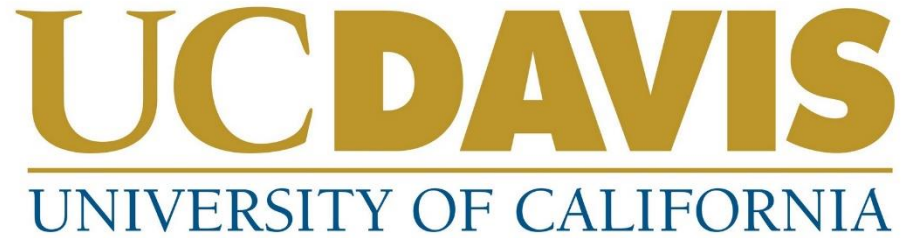
**Education**

# ● Innovation: Horticulture Innovation Lab Regional Center at Zamorano

21 low cost technologies have been established, and 2,400 rural producers have been trained in their use in the past 3 years.



- Innovation: Top agri-food universities collaborate to fight hunger





# Innovation



# SMART FARMING

SIX WAYS MOBILE AGRICULTURE APPS LET FARMERS WORK SMARTER



### WEATHER

Access hyper-local weather forecasts to know when it will start and stop raining in your exact location.



### APPLICATION

Increase efficiency by properly calibrating equipment and mixing chemicals and fertilizers for application.



### PLANTING/ HARVESTING

Track tilling, planting and harvest times to optimize crop growth and yield.



### IRRIGATION

Take the guesswork out of irrigation for specific crops based on variables such as weather and plant growing stage.



### ACCOUNTING

Stay on top of operational finances by managing accounts, handling payroll, and tracking expenses and profits.



### MACHINERY

Keep track of maintenance such as dates for oil and air filter changes, purchase dates and serial numbers.



# iSEEK | Purdue University



INSTITUTE FOR SOCIAL EMPOWERMENT  
THROUGH ENTREPRENEURSHIP AND KNOWLEDGE

The ISEEK small business development program has been developed at Purdue University, and has become the national flagship small business development program in India. In association with Purdue, Zamorano will introduce the Institute for Social Empowerment through Entrepreneurship and Knowledge (ISEEK) in Honduras, through a project called SAKSHAM. The main objective is to facilitate the creation of 37 successful small businesses in Honduras in the next 3 years, directly empowering 370 young people. Using ISEEK's collective entrepreneurship model, each business will comprise of approximately ten "business owners" and create jobs for their respective communities

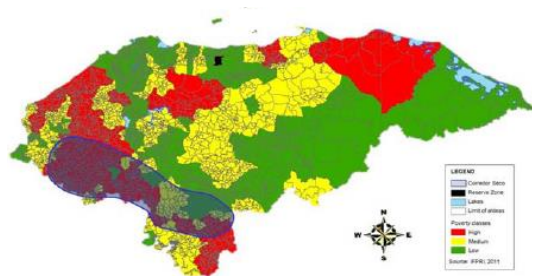
<http://www.krannert.purdue.edu/centers/iseek/>



# Research




## Prevention of childhood malnutrition, stunting and infections, through the scalable processing of tropical fruits in the Dry Corridor of Honduras



Researchers:  
Cardona/Talcott/Talcott/Hernández



# Impact of Juan Carlos Rosas' research in the region

60+ 

bean varieties developed and released



200,000+

small farmers in Central and South America and the Caribbean cultivating these bean crops



\$350,000,000

Economic impact resulting from the cultivation of these bean varieties in the region



Improved nutritional content, (iron and zinc), resilience to disease, drought, and climate change

# ● Outreach / Engagement

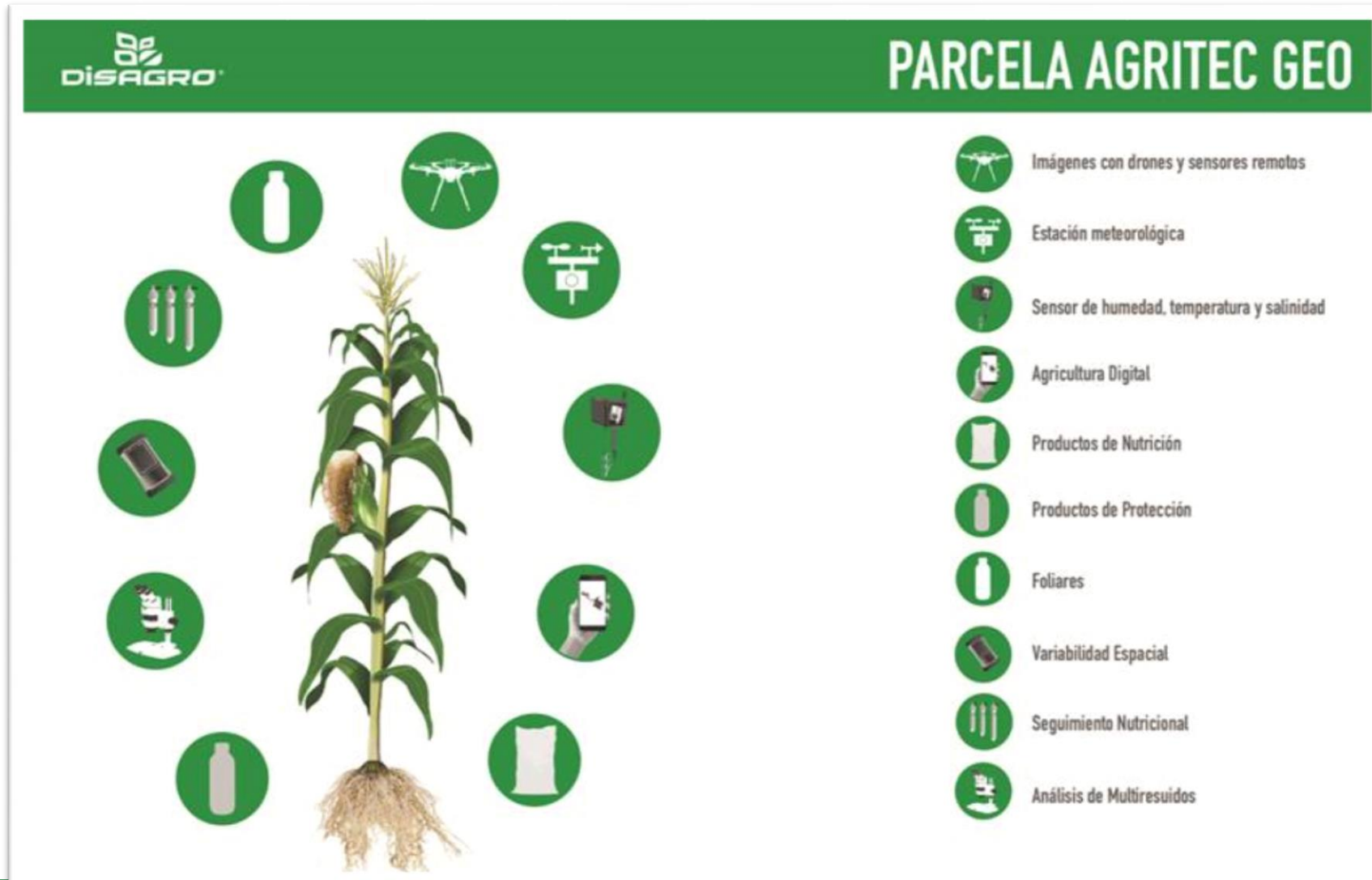


# ● Outreach / Engagement

Course name	
1	Genetics, nutrition and reproduction in dual purpose cattle
2	Hog production techniques
3	Family Egg Production, Climatically Smart Family Farming
4	Extensión program methodologies
5	Grains and seeds production
6	Agribusiness in the value chains
7	Soil and water resource management
8	Technical consulting in efficient production
9	agribusiness in the value chains
10	Soil fertilization and mangement
11	4S training for Zamorano employees
12	Establishing school gardens and family farming
13	Mediterranean diet in Honduras, learning to prevent diseases

14	Update in child nutrition
15	Complementary feeding
16	Science and technology of grain and legume storage
17	Coffee science and technology
18	Dairy product preparation
19	Good manufacturing practices
20	Grain and seed handling
21	Preventive controls in food safety
22	Hive management
23	Concentrate and juice preparation
24	Anthropometry
25	Coffee processing

# ● Outreach / Engagement



# ● Education



## LEARNING BY DOING

Commitment, knowledge and work

# ● Youth leadership

