BRIGHT HOPE®

Haiti Ecosystem Sustainability Workshop Evaluation Report

Pignon, Haiti

Introduction

A two-day sustainability workshop was held April 23-24, 2012 for the surrounding communities of Pignon, located in central Haiti. Technical experts in the fields of permaculture, water, sanitation, biochar, efficient stoves and fuel making were brought to provide classroom seminars and field demonstrations to participants. Haiti is the poorest country in the western hemisphere with over 50% of the people living on less than a $1 day.

Participant Demographics

Location

Over 210 participants attended the workshops from over 80 different towns and seven different regions in Haiti. The greatest percentage of participants came from Nord, Centre and Artibonite regions, with some traveling from Nord-ouest, nord-est,

oust, and sud to attend the workshops (seeFigure 1). The most commonly reported home and farm locations were Pignon and LaCoste (Nord), Terre Blanche (Artibonite) and Ca Jean Boule (Sud).

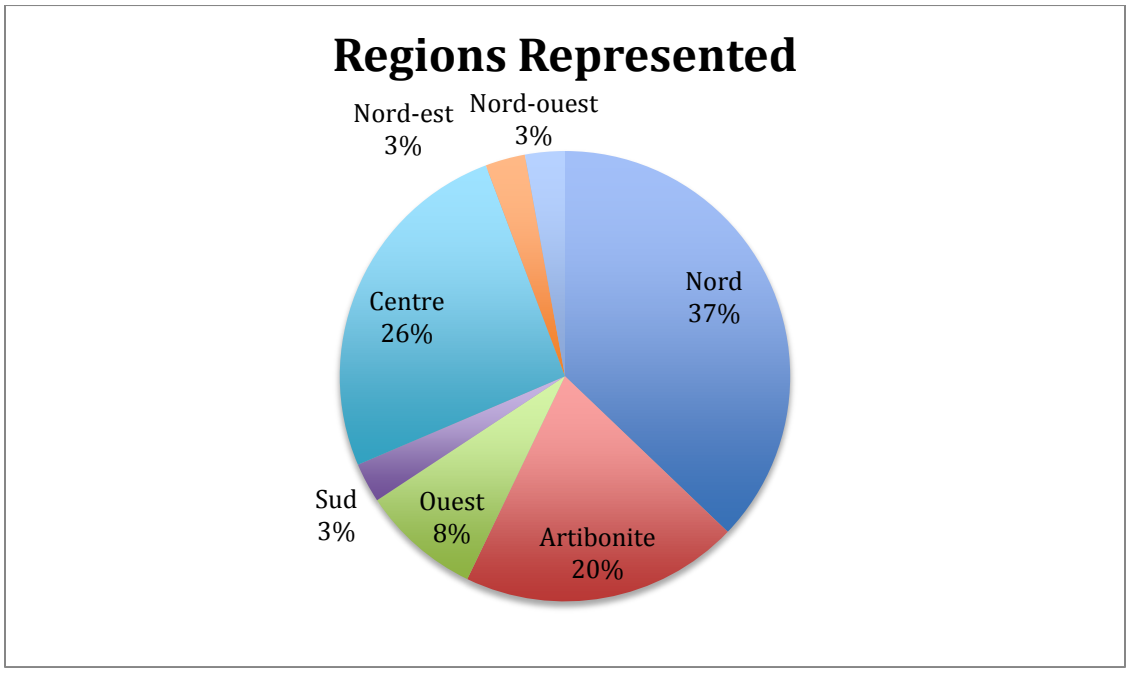


Figure 1.Location of participants home or farm by region

Communication/contact information

80% of respondents (141) provided a phone number, while 35 indicated that they did not have one or chose not to provide this information. Only 3% of respondents reported that they knew how to use email, while 78% specified that they did not know how to use this form of communication. Only three respondents (<2%) of respondents provided an email address for contact information. See Appendix X for participant contact information.

Registration of participants at workshop

Age

Eighty-five percent (85%) of respondents indicated their age on their survey form. Reported age of participants ranged from 16 to 79 years, with average age being 40 years old. Figure 2 shows the age distribution of respondents.

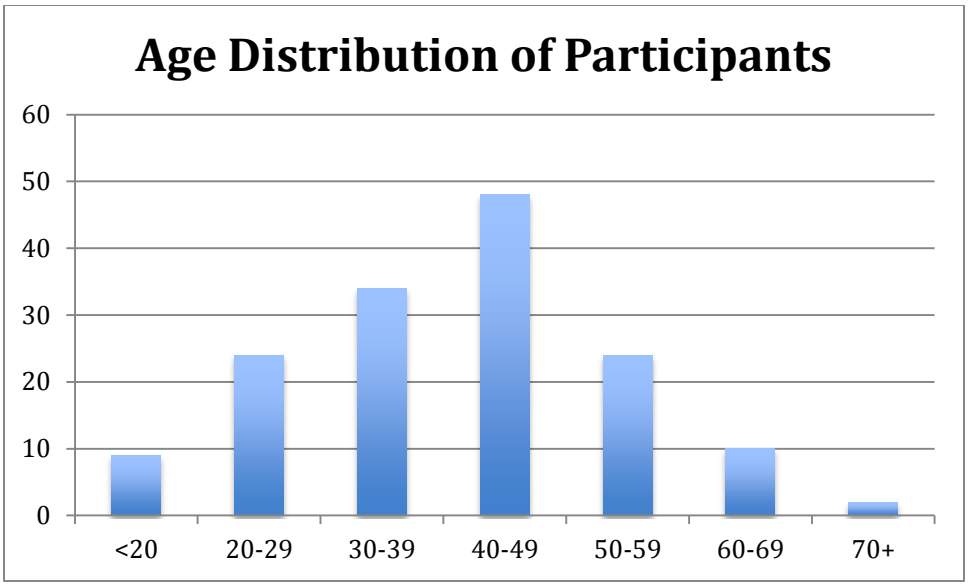


Figure 2.Age distribution of participants by decade.

Profession

About 60% of respondents indicated their profession on their survey form (see Figure 3). The most common profession of participants was farming/cultivation, reported by 43% of respondents (76). About 6% of respondents (10) reported working in business or commerce, while 8% of respondents (14) identified themselves as students. Other professions represented by <2% of respondents include teaching, building/construction, tailoring,cooking, nursing, and medical technology.

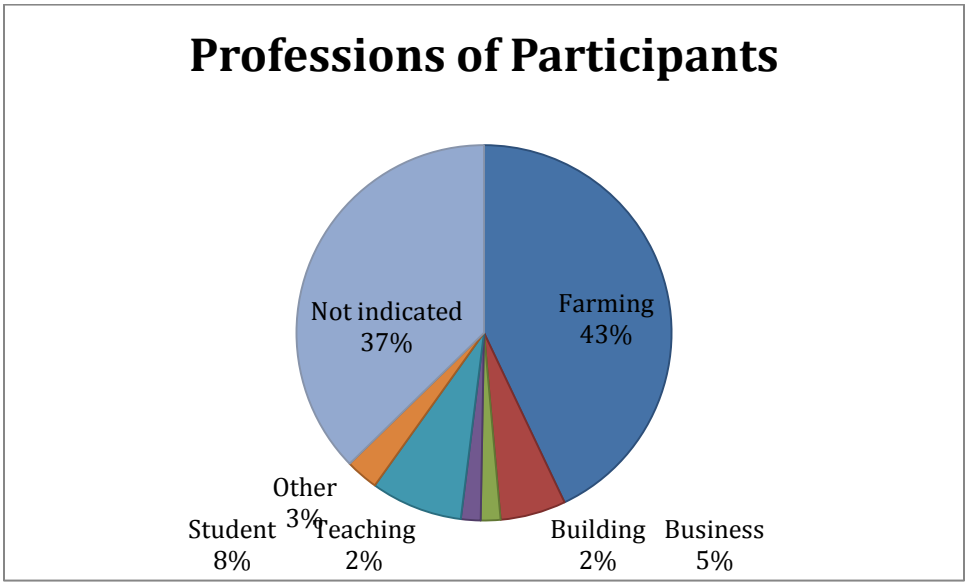


Figure 3. Professions represented by participants.

Crops

Sheet mulching demonstration by Ryan Hottle

About 65% of respondents indicated that they grew crops and specified the type(s) of crops grown in their farms or gardens. Corn is the most popular crop planted, listed by 35% of respondents (61). Beans and sugar cane are also common crops, both specified by almost 20% of respondents. Peas, peanuts, cassava, potatoes, tomatoes, rice, bananas, plantain, couscous, onion, chilis, cabbage, squash, sweet potato and millet are also included in participants' crop varieties (see Figure 4). 45% of respondents who listed crops indicated that they plant more than one type of crop in their farm or garden.

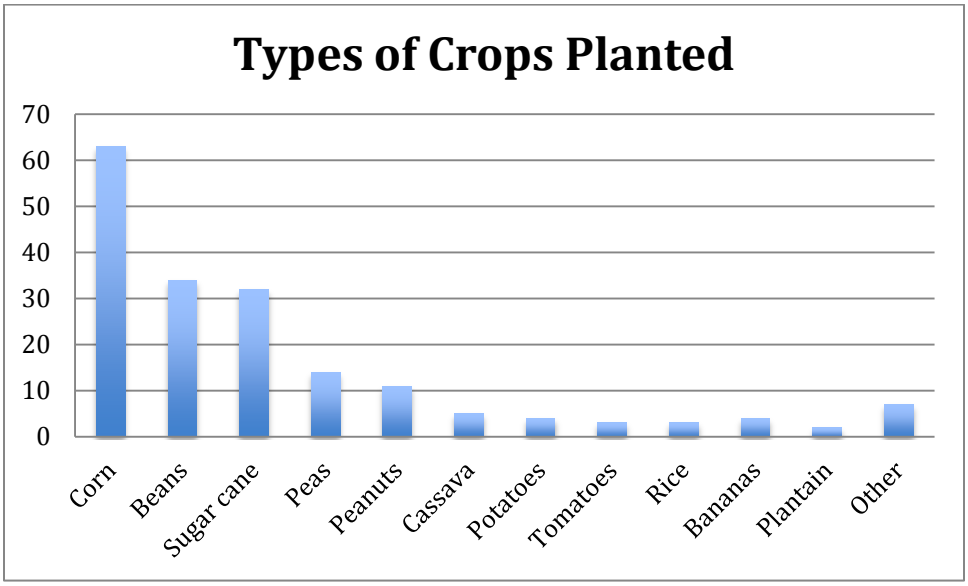


Figure 4. Types of crops planted by respondents

Only 10% of survey respondents indicated that they produced enough food to feed their family, while over 78% reported that their crop production was not sufficient to meet their families' needs (11% did not respond to this question). 25% of respondents indicated that they sell their crops.

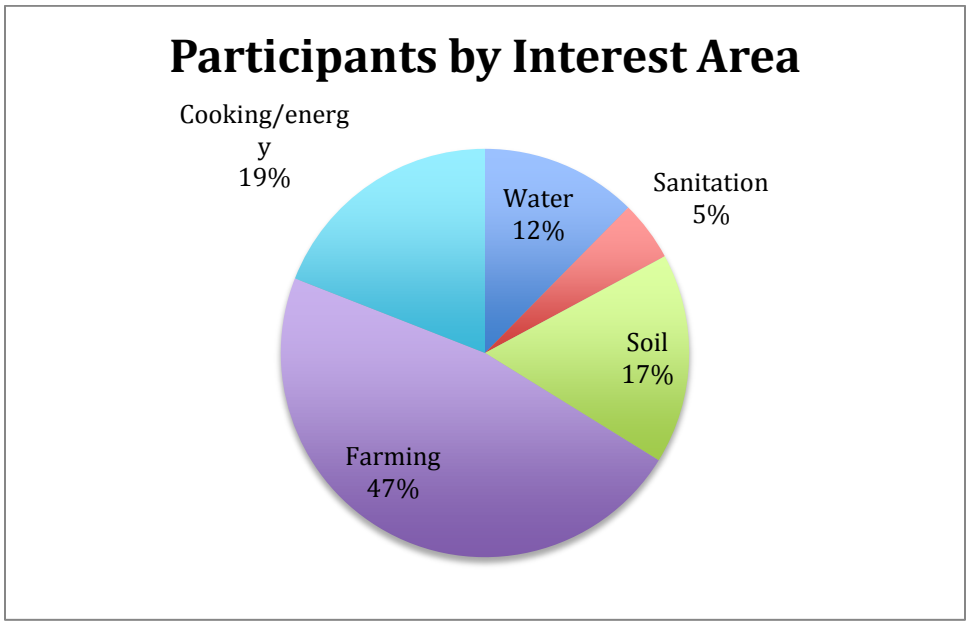
Less than 2% of respondents (3) reported that they have an irrigation system.

Priority Interests

Participants expressed challenges and solutions during discussion group breakout sessions

The 210 participants who registered for workshops on Day 1 indicated priority interests among five topics to be presented during the workshop: water, sanitation, soil, farming, cooking/energy. Farming was the most popular category (47%), while sanitation was the selected priority interest by only 5% of registrants.

Participants were broken up into groups for discussion on the priority issue that they selected. Facilitators/Interpreters led each discussion group and wrote down comments and suggestions. Afterwards, the findings of each group were shared with all participants together.



The following comments that came out of the group discussions will be written up in paragraph form in the report.

Discussion Group Topics

WATER

Challenges:

- capturing water for the community

- plants (gardens) and people need water to live: no water = no life
- food is now expensive because there is no water to water plants
- bad water causes a lot of illness
- drinking water is too far; Pignon does not have purified drinking water (??)

Vision/ needed changes:

- Drinking water is the most important thing for the community; need to drink clean water
- need a tank to conserve the water
- need a water pump and filter
- With irrigation and healthy drinking water, we will have a healthy new generation in the future
- system of irrigation would be good in the garden

Steve Risley teaching participant the use of rain catchment in large water barrel

Water drip irrigation system for a small vegetable garden

Opportunity

- could make a lot of money from crops but there's no water

SANITATION

Challenges

- big toilets for family and farming
- city water problem – water is not clean
- no clinical center or hospital
- we cannot tell government or city to do things, such as posting a sign not to have animals around water pump locations. There is fear to ask for something this simple to encourage/motivate people to be clean.

Approaches

- need to drink clean water
- wash hands before eating
- need to eat clean and healthy food

Successful approaches

- we can get family to wash hands before meals (success) -- but with travel, this does not always happen; not easy
- hand sanitizer when available
- prepare (cook/clean) vegetables
- mothers demonstrating washing food with clean water
- boil water

Monika Roy of SOIL demonstrating composting toilets

Failures

- When wind came, the toilets did not work – needed concrete ones
- When rain comes, we get cholera (need to drink clean water, use hand sanitizer (Clorox) and boil water all the time
- Some families do not pay attention to the threats, especially in the country

Vision for the future

- better for the future generations
- create more toilets

Needed/possible changes

- create more hospital or clinical center
- create more business to get more money to take care of families and to increase financial aid
- prohibit trash next to water source (pump)
- protect environment
- write on board (create signs) to tell people
- we cannot tell government or city to do things (challenge of powerlessness), but perhaps we can tell neighbors or warn families
- don't let pigs go into the river
- ask neighbors not to let human waste go anywhere they want

SOIL

Challenges:

- No means to work soil the way we want
- People cut trees too much
- Need more fertilizer; can not find fertilizer
- Used to produce more corn
- No progress

- Even animals cannot find food
- Lack of land
- Use everything in the same piece of land

Approaches
- plant trees
- need more education

Successful approaches
- applying animal waste to the soil (natural fertilizer)
- Leucena needs to planted again – it used to help

Failures
- burning grass has not worked
- using everything on one piece of land

Threats
- in 5 years, Haiti will become a desert if we do not do something

Needed changes
- need to regroup?
- Need help to improve the soil so the soil can help us
- Stop burning
- More materials and tools needed

Vision
- In St. Domingue (Dominican Republic), farmers have trucks and don't look poor
- industrialize agriculture with bulldozers and big tractors
- one agricultural agent in each area

FARMING

Challenges:
- lack of technical experts
- lack of financial support (no money to work or buy products_
- lack of equipment
- lack of water (need cistern)
- lack of knowledge
- irrigation

Techniques and benefits of swale construction shown to participants

- fertilizer
- insects eating plants
- rain (lack of it?)
- need tools (e.g. hoe)
- burning trash in the field
- planting around weeds
- need good seeds

Approaches

- community work party (*tonbit*)
- use picks in garden
- using waste to fertilize
- compost
- plowing the field and preparing the ground

Successful approaches:

- using tractors and plows - keeps land fresh
- plowing with cow is better, but more difficult
- better harvest when soil is rolled over
- instead of working a big field, working a small area with more grains
- protecting the land
- preparing and correcting the soil
- Nivo A

Robert Fairchild making biochar from bagasse (sugar cane) for use with soil or stoves

Failures:

- slash and burn agriculture – depletes nutrients from soil
- Waiting for seasonal rain
- Eliminating vegetation (sugar cane only)

Threats:

- hunger
- will need to buy food from abroad

Vision:

- improvements in 5 years with changes in funding
- Looking forward to learning new approaches during workshop
- If we don't change or invest, we will be set further back (situation worse for next generation)
- Need to work together for better results
- Build association
- More fertilizer
- Better equipment

Recommendation:

- Certificate for training

ENERGY/COOKING

Challenges:

- Charcoal is too expensive; some buy, some make it
- Wood: too much smoke, makes you sick, hurt eyes, causes headache, soot on pot; some collect won wood while some buy it
- Cooking outside is a problem when it rains
- Wood is also expensive and often too wet to burn well
- Run out of fuel when cooking sometimes
- Not enough energy resources for fuel (wood, charcoal, gas – no $ for it)
- Expensive cost of fuel: spend about 20 – 30 cents per person per day on charcoal (wood is more expensive because bakeries and sugar mills use it, causing more competition

Biomass gasifier stove

Current approaches:

- Use wood and charcoal (wood easier to get than charcoal)
- 3-stone open fire
- Sheet metal for charcoal stove
- 1 person used white gas stove
- Know nothing about reducing energy use for cooking
- What we use now is not good for next generation, no successful approaches

Vision for future / needed changes:

- Want combined oven-stoves and solar stoves
- Want jobs so we can afford to buy fuel
- Charcoal with something else (e.g. propane) would be better so we don't cut trees, but propane is expensive
- Need to plant more trees for more fuel
- Ideally use solar energy and electric stoves in the future

Conclusions

The overwhelming positive response from participants during the workshop demonstrated the desire to gain sustainability knowledge and put it into practice what they learned. Feedback from the participant survey indicated they found the workshop valuable and an opportunity to network with other community members. Many expressed they wanted ongoing training, information and support.

Substantial and important information was acquired from the participants indicating their needs, problems and potential solutions to their situation. There are many challenges including lack of water, soil degradation, low quality equipment/supplies, no clear & common vision, and minimal financial support. Although the needs are substantial and deep, the workshop provided confirmation that this is an area that Bright Hope should continue to invest in.

As a next step, Bright Hope would encourage investment in the proposal titled "Improving Haitian Family Incomes through Eco-friendly Businesses and Energy Efficient Technology" which builds upon the enthusiasm from these workshops with a 3-year comprehensive program.