

**ORGANIC FARMING, CLIMATE CHANGE AND ICTS**  
**FOCUS GROUP / TRAINING WORKSHOP FOR**  
**KNOWING AND GROWING FARMERS**  
June 27<sup>th</sup> to July 1<sup>st</sup> 2009  
Workshop Summary Report

Compiled by:  
Networked *Intelligence* for Development  
Jamaica Organic Agriculture Movement



**ORGANIC FARMING, CLIMATE CHANGE AND ICTS  
FOCUS GROUP/TRAINING WORKSHOP FOR *KNOWING AND GROWING* FARMERS**

June 27<sup>th</sup> to July 1<sup>st</sup> 2009, Kingston, Jamaica

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**Implementing Organizations**

Jamaica Organic Agriculture Movement, Jamaica  
Networked Intelligence for Development, Canada

**Participants from**

Canada, Jamaica, St. Kitts & Nevis, Trinidad & Tobago

**Collaborating Private & Public Institutions**

Environmental Management Institute, UWI, Jamaica

**Local Resource Presentations**

Mr. Ricardo Clarke, Meteorologist, Meteorological Services, Jamaica  
Mr. Owen Evelyn, Senior Director, Forestry Dept. Jamaica  
Mr. Norman Foster, Vice-President, CGM Gallagher Group, Jamaica  
Dr. Elizabeth Thomas - Hope, Environmental Management Unit, UWI, Jamaica  
Ms. Donna Noble, Woodford Market Garden, Jamaica

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**Workshop Sponsors**



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### **1: Farm site visit - Woodford Market Garden**



**2: Workshop facilitators - Markus, Nidhi,  
Dorienne**

## **I. Introduction and context**

**Networked Intelligence for Development (NID)** in Canada and the **Jamaica Organic Agriculture Movement (JOAM)** have been working together since 2003 to build the capacity of women farmers to farm organically through the *Knowing and Growing Network*.

Following a successful joint venture in 2004 where 50 women farmers from 13 Caribbean countries participated in the first *Knowing & Growing* training workshop, the two partner organizations committed to continue working to deliver applied and technical expertise in organic farming, small business development and information and communication technologies (ICTs) to women farm-entrepreneurs in the region. A second regional workshop took place in Grenada in 2006 followed by the third workshop in Guyana in 2007 and a training of trainers' workshop in 2008.

Organic agriculture is the fastest growing of all sectors in agriculture, worldwide. Shifting to organic farming is an attractive alternative for small farmers in the Caribbean, as the demand for organic produce and products continues to grow and as the banana and sugar industries on several of the islands face a downturn. Organic farmers are able to apply local resources and knowledge as well as non-chemical inputs to their farming systems, conserve their soil and land quality, and revive Indigenous Agricultural Practices. This in turn can have a positive long-term impact on local food security and promote a return to cultures and systems of holistic environmental management.

Organic farming is, furthermore, a highly knowledge-intensive and intimate method of farming relative to other methods. ICTs lend themselves to more efficient and effective management of these farming practices. Everything from farm management, pest control, the use of indigenous herbicides, crop monitoring, and soil culture promotion to organic standards, certification and marketing requires constant monitoring, data collection and record keeping. At the same time, many small-scale organic farmers farm in isolation and might not benefit from the larger community-based networks that support non-organic farmers. As more farmers adopt organic methods successfully, storing, processing and marketing facilities will need to be developed to ensure that products reach their markets meeting the quality standard requirements. ICTs are important for farmers to use to build and nurture relationships with the entire chain of organic agents including importers, traders and wholesalers. Many of the certification processes are increasingly web-based, making it imperative for farmers to familiarize themselves with the ease of access to information and application procedures that on-line applications lend themselves to.

At the same time, as in many other regions in the world, women play a vital if under-recognized and unsupported role in food production. They have less access to land, extension training, affordable credit and loans than do men. By implication, women have less opportunity to articulate, negotiate or act upon their concerns in the food production sector at the policy level. These farmers also find it more difficult to establish market contacts for their products, and may find the costs of converting cropland to organic a challenge. At the same time, research indicates that not only do women make up to 65% of day-to-day on-farm and 80% of marketing decisions, but that there is also a growing level of expressed interest and commitment to

organic farming methods among women, not least because they have already experienced first hand the damaging effects of synthetic fertilisers and pesticides, and because they are very concerned about their immediate family's health.

NID and JOAM anticipate continuing this work with women farmers over the next few years because the impacts of the training are positive and immediate, and more and more women are demanding this kind of hands on practical training. As the network of Knowing and Growing participants grows, we are able to visit farms of past participants, and past participants often recommend others to attend new workshops. In this way, women entrepreneurs who have participated in these workshops grow and support each other in this sector of agricultural development.



**1: Virtual farm visit presentation – David Dolly**

This workshop was funded primarily by the UNDP's CARUTA (Caribbean Regional Unit for Technical Assistance) program. In the preparatory work of CARUTA through TAPARD, UNDP established a relationship with NID collaborating on a number of capacity building activities particularly targeting women farmers and organic farming since 2003. CARUTA is currently supporting the CARICOM secretariat in establishing an effective information and knowledge sharing system. The use of ICT is increasingly becoming essential. CARUTA can facilitate this sharing of information through an established website and at the same time provide support to CARICOM in establishing the required data collection system. The scope of the website will be to breach gaps, making information effective and stimulating all stakeholders to "think regional" as without a really free and effective movement of agricultural produce within the region there is little that can be achieved in terms of food security and agricultural development.

The pilot workshop participants comprised of women small-holder farmers from Jamaica and St Kitts/Nevis, organic based growers from Jamaica and Trinidad & Tobago, RADA Extension officers and College Interns from Jamaica, diverse representation from JOAM, expert contributions from relevant agencies which serve Organic Farming, Climate Change and ICTs,

and representation from the environmental institute , Mona Campus. The workshop design, delivery, facilitation and general coordination was conducted by NID, Canada.

## **2. Climate change issues of concern to organic farmers**

Many of our global scale environmental issues are directly related to Earth's natural resource base. Today's major global scale challenges include climate disruption, losing forests, losing land, losing freshwater, losing marine fisheries, losing biodiversity, and over-fertilization with nitrogen (leading to large areas of dead land and ocean). All of these challenges and losses are inter-linked and inter-dependent, resulting from modern methods of land use and the relentless exploitation of resources for profit and consumption.



The long-standardized and established principles of land use methods need to be 'unlearned' and reversed, the vested interests of an entrenched agro-industrial system<sup>i</sup> dismantled, and by the same token, those people who are the natural stewards of land and natural resources need to be recognized, valued and empowered to take new strides in the context of climate change.

### **2: Workshop discussions**

This pilot workshop drew the links between agriculture and climate change, and showcased the ways in which organic farming addresses the negative impacts of climate change. The four day workshop explored the various ways in which climate change information can be made relevant to smallholder farmers. The workshop culminated in a public forum which attracted key stakeholders including the FAO representative for Jamaica, Belize and the Bahamas, the chief of the Meteorological office, senior staff from the Ministry of Agriculture and CARDI, and representatives of local and regional NGOs including PANOS. There is clearly a great deal of interest in the overlapping issues of small scale farming, the damage to the environment to date, and the opportunities for engaging farmers in making the region a net carbon sink.

Some of the key thematic issues that were discussed included the following:

#### **2.1 Climate Change, Food Security and Organic Farming**

The mono-crop, slash and burn, high synthetic (chemical) input agriculture that is practiced in the region runs counter to conserving and nurturing the land, to the biological foundations of farming and to optimizing natural resources and natural defence mechanisms. The combination

and convergence of a number of factors have left agriculture in the Caribbean region in serious crisis and food security compromised.

By drawing the links between erosion, depletion of soil content, and the damage of hurricanes, participants are able to consider the long-term advantages of managing their farms through a holistic organic system.

Participants considered the value of nurturing healthy soil, to grow healthy food, to feed a local population, and distinguish between organic farming and local (traditional) farming methods and what this means for sustainable local livelihoods. In so doing, the cause and effect of mono-cropping, stretching the crop to its maximum (as opposed to its optimum), and cycles of famine and low harvests, are drawn. The workshop facilitators also debunk a series of common myths; that to convert to organic requires leaving the farm fallow for three years or that conventional crops have a higher yield than organically grown.



**3: Forestry discussion - Owen Evelyn**

Workshop participants explored a range of examples of climate stress and associated consequences, such as more frequent heat waves, heavier precipitation events or more intense tropical cyclones and the impacts on livelihoods, food and water security, health, biodiversity, coastal area damage and loss of settlements. Participants also noted especially damaging human activities such as sand mining which has led to a terrible level of degradation as sand is removed from soils, the tourism industry also has a lot to answer for as large hotel complexes are built on fragile coastlands. The participants were able to brainstorm responses to disasters related to climate change such as hurricanes. They began to reflect on the resilience of organic farming following such adversity.

## **2.2 Turning crisis into opportunity: why Organic Agriculture is such a compelling option during climate change**

The Force 5 Hurricane Ivan in 2004 heralded an ominous change in weather patterns with more frequent and more severe storms devastating the region coupled with increased rainfall causing severe flooding interspersed with periods of drought. Farmers right across the Caribbean are facing the direct and indirect effects of climate change.

Small holder farmers are the most vulnerable of the agricultural community and have had little help to secure their farms, natural resources and assets in the face of increasingly unpredictable weather and rising sea levels. The same farmers, however, have a critical and yet unrecognised role to play in addressing climate change by changing their farming practices to use less energy, to care for nurture biodiversity and by reducing Greenhouse Gas Emissions. The farming method identified by the UNEP and FAO as a fundamentally sound way to address climate change is organic production.

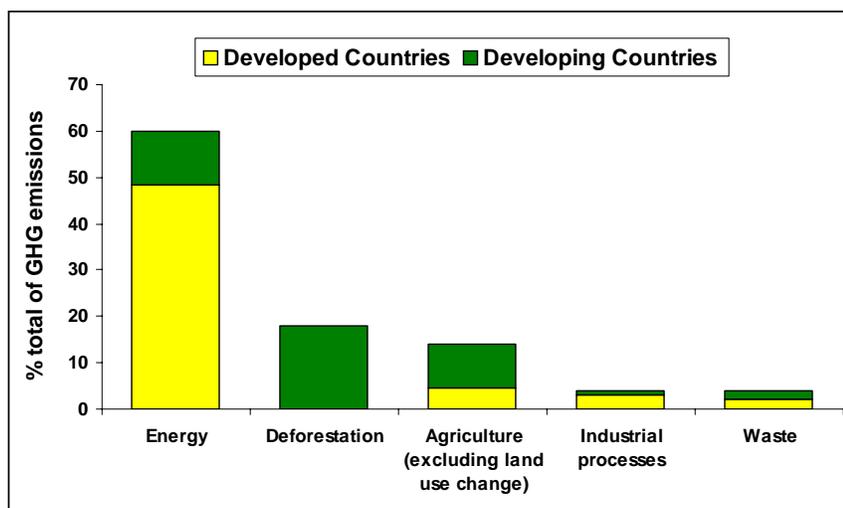


Figure 1: Sources of GHG Emissions

Agriculture and deforestation (which often times go hand in hand) are a significant contributor to GHG emissions (see Fig. 1). According to the IPCC Climate Change 2007 Synthesis Report: Latin America/ Caribbean region: "By 2050, desertification and salinization will affect 50 percent of agricultural lands in Latin American and the Caribbean zone. If deforestation continues at today's rate, approximately 40 percent of the existing 540 million hectares of Amazonian rainforest will have disappeared by 2050".

The Intergovernmental Panel on Climate Change, Fourth Assessment Report (WG3, 2007) identifies a number of opportunities for mitigating greenhouse gases in agriculture. These options for mitigation fall into three broad categories: reducing emissions; enhancing removals; and avoiding (or displacing) emissions (pp 505-508).

- **Reducing emissions:** effective agricultural management can help reduce the emissions of carbon and nitrogen flows in agricultural ecosystems. The approaches that best reduce emissions depend on local conditions, and therefore, vary from region to region;
- **Enhancing removals:** improved agricultural management such as practices that increase the photosynthetic input of carbon and/or slow the return of stored carbons can result in enhanced greenhouse gas removal;
- **Avoiding emissions:** crops and residues from agricultural lands can be used as a source of fuel. Emissions, notably CO<sub>2</sub>, can also be avoided by agricultural management practices that forestall the cultivation of new lands now under forest, grassland or other non-agricultural vegetation.



4: Composting demonstration on farm

Irrigated agriculture accounts for almost 70% of world water withdrawals and close to 90% of the total consumptive water use (the portion that is lost to the immediate environment for use)<sup>ii</sup>. Water management for agriculture will become an increasingly important concern as a way to coping with climate-related water-stress, particularly in rain-fed agriculture. Crop productivity will depend upon sufficient precipitation to meet both evaporative demand and soil moisture needs. Furthermore, the two sectors in the world that use the most water are chemical intensive agriculture and fossil fuel-based energy production.

Organic farming<sup>iii</sup> presents a viable and important opportunity to the region, not only because of the non-chemical nature of the overall productive system, but also because data gained from modeling both long-term field trials and pilot farms<sup>iv</sup> show:

- it's considerable potential for reducing emissions of greenhouse gases (because it uses less energy than conventional farming);
- it's significant contribution to sequestration of CO<sub>2</sub> in the soil<sup>v</sup>

The FAO reports that "Organic agriculture performs better than conventional agriculture on a per hectare scale, both with respect to direct energy consumption (fuel and oil) and indirect consumption (synthetic fertilizers and pesticides)". Its 2002 report states that organic agriculture enables ecosystems to better adjust to the effects of climate change and had major potential for reducing GHGs.<sup>vi</sup>

Other positive factors include:

- Organic soils have better water-retaining capacity which explains why organic production is usually more resistant to climatic extremes such as floods or droughts
- Carbon sequestration in soils is promoted by organic methods due to the addition of compost, mulches, manures and cover crops
- Organic farming systems require regular and methodical recording of farming data such as compost production and harvest records for organic farm inspectors to monitor. This systematized data collection method lends itself to systematic recording of weather-related data for use by local and national meteorological stations
- As organic farming comprises highly diverse farming systems, the diversity of income sources also increases potentially buffering farmers to adverse effects of climate change and variability such as changed rainfall patterns. Coffee planted under forest trees alongside asparagus for instance, protects the coffee bush from the ravages of a hurricane wind and diversifies the income of the farmer
- Future carbon sequestration programmes that seek to offer farmers environmental fees for stewardship of soil, land and biodiversity may have an easier time of measuring economic value, cost and payments



**5: Virtual farm visit - Rowan's Royale organic coffee**

- Biodiversity of flora and fauna (including birds)
- Organic farming offers a low-risk farming strategy with reduced input costs and lower dependence on external inputs such as fertilizers. By extension, this often means reduced financial risk, reduced indebtedness alongside increased diversity
- Other related benefits - healthy eating, local foods, lower overall food carbon footprint.

Participants discussed these issues from their personal perspectives and experiences. In the evening, they were able to view a series of compelling video materials from the Rodale Institute that draw positive links between good health, organic farming and a solution for climate change.

### **2.3 The Organic Export Sector, international trade implications for women farmers**

Organic agriculture is one of the fastest growing of all sectors in agriculture, worldwide. According to a 2005 World Study on Organic Agriculture, currently more than 26 million hectares of farmland are under organic management worldwide. This is more than two million hectares more than in the previous year - an increase of almost ten percent. The organic sector is, on average, under half a percent of the total agricultural sector in most countries, the exceptions being Germany and Austria which have between two and three percent of their agricultural area under organic production. The major organic products sold in global markets include in order of importance dried fruits and nuts, processed fruits and vegetables, cocoa, spices, herbs, oil crops and derived products, sweeteners, dried leguminous products, meat, dairy products, alcoholic beverages, processed food and fruit preparations. Non-food items include cotton, horticulture and livestock.

“With climate change, mono-cultures are going to fail, so systems will naturally mutate towards polyculture and permaculture”.  
Erle Rahaman-Noronha, Trinidad

Opportunities exist to tap into export, regional and local tourism markets, but women farmers tend to be isolated from systematic and easily accessible market information, are not producing to organic export standards, do not recognize themselves as entrepreneurs or farming as a business and are thus less likely to translate their interest and farming practice into economic revenue. A number of women farmers would like to make this leap but need support to do so. The market for organic products from the Caribbean is potentially a large one. There are regional opportunities, which could be explored by targeting hotels and the growing ecotourism market. In the Caribbean, women own and control less land than do men. The majority of female farmers are small farmers. Despite policies intended to assure equitable development of women, they still receive less extension training and access comparatively fewer loans for farm development, product development and marketing. Although there is little available data on hectares in organic agriculture in the Caribbean it is indicated that in every territory a high percentage of women farmers show an interest in farming in traditional and holistic fashions but do not have access to the standards and production processes required for certification. These farmers need instead to grow for local food security and to target the domestic markets, both

locally and regionally where there is a growing demand and need for healthy foods.

I will be going into the prep. Schools to teach children about organic farming and caring for our environment. If we begin to teach our young children about caring for the environment and respecting what we have - it may become second nature.

Donna Noble, Jamaica.

One of the participants from St. Kitts mentioned her difficulty in acquiring more land for farming, and also noted that some land is being sold to biofuel interests. This led to a brief discussion on the mono-crop features of biofuel plantations, and an introduction to the carbon emissions cap and trade initiatives. This aspect of the training program will be explored further in future workshops as it is important for farmers to understand the implications and potential benefits of the clean development mechanism as a farm incentive.

### **3. Highlights of workshop discussions**

#### **Specific to farming systems:**

- There is a need for more readily available information on applied organic farming, such as how to treat farm insects so that those attempting to farm organically do not revert back to easily accessible chemical pesticides when insects become a problem;
- Public education on the benefits of eating organically produced and naturally farmed produce needs to be heightened particularly among younger populations, although there is a growing awareness and demand for natural foods e.g. in St.Kitts;
- Simple print and audio-visual adult training materials specific to the Caribbean context but drawing also on good practices in the South, need to be developed with farmer input to counter prevailing misconceptions on the viability of organic farming and to add momentum to making organic the default agricultural system in the region;



**6: Woodford Market Garden - hillside organic farming**

- There is no local capacity to monitor soil carbon sequestration in conventional versus organic farming, this would be useful in demonstrating the benefits of one system against the other;
- The chemical inputs that are so readily available as a result of the agro-industrial system means that initiatives to provide support to farmers, e.g. through risk insurance, will often provide non-organic seeds and fertilizer as a recovery package, but these inputs are of no use to the organic farmer and can set back those who are attempting to shift away from chemical agriculture. Insurance packages need to be developed to cater for the specific needs of organic farming;
- The notion that the farm itself might contain all the natural inputs that the farmer needs to promote soil health and fertility, needs to be demonstrated in localized contexts;
- There is general agreement that those initiatives that work with and through women farmers are usually the ones that have long term sustainability and therefore it is key to continue working deliberately and strategically with women farmers.

**Specific to climate change:**

- Public awareness campaigns on the benefits of growing trees, and on the disadvantages of slash and burn, or the depletion of mangrove for coal (for instance), need to be widespread and broadcast in the context of climate change;
- Meteorological recording of climate change: data collection in the region, potential role of farmers, small and large scale alike to make weather recording an integral part of farm activities. Need for more coordination between agricultural institutions, weather recording at the university centres and farmers themselves;
- The importance of forestry to farming and vice versa. As far as figures go, Jamaica is emitting eight times more than it conserves, and although the country's contribution to climate change is considered minimal, Jamaica should try to be a net CO2 sink. There is more room for solar and wind energy and less enthusiasm here for the biofuel alternative despite external pressures;
- A pre-feasibility study on an program of compensation to farmers in Jamaica as a result of exposure to weather risks has just been completed, this would be an ideal time to ensure that a number of local organic farms are included in the next phase of the pilot initiative roll out;
- The potential for growing both food and fuel on farms, to make up for the loss of local vegetation (such as sea grape which is harvested for coal);
- The importance of putting trees into farming systems immediately so that they mature in the next ten years to protect the islands from climate damage.

**Specific to ICTs:**

There is an array of websites that would be useful to farmers, depending upon their level of ease with accessing and working with the web. All the participants left the workshop with an email address set up and having subscribed to the IFOAM organic newsletter by email. A few participants were interested to learn about skype. Most were interested to see the variety of websites that they could access for regularised information.

If you tell farmers that there is a film show - they will come! That is the best way to teach new methods.  
Bryan Anderson, Jamaica

- There are on-line tools to measure household and farmstead carbon footprint, but these need to be customized and recalibrated to take into account a Caribbean rural setting and the carbon footprint involved in packaging, waste management and processing on and off farm;
- Participants were able to see Google Earth mapping and to understand the implications and benefits to farmers of having this kind of information.

If organic farmers in the Caribbean are to be active players in the global trend towards organic farming, then it is essential that they have access to the Internet, and that they begin to use ICT based applications for their information management and communication needs. ICTs afford relatively inexpensive access to a wealth of information and networks, market information;

comparative data on farm gate prices; consumer analyses as well as organic methods. The latter include not only producing organic products but also ensuring that the products are stored, processed, handled, labelled and marketed accordingly. In addition, information management software affords easier record keeping and by extension, more efficient means of forecasting supply and demand for products and produce.

To help women take advantage of computerization and digitization in the context of existing and emerging organic and natural products markets, there is an urgent need to build on current initiatives. Existing nodes of activity need to be developed into a strong interactive marketing network. This requires training in basic ICT skills, e-marketing skills, website management, vision building, and exposure to ICT service providers, marketing organizations and regulations and standards bodies. One of the main concerns of new entrants into the organic market is the small consumer base and the lack of market premium. An effective way of creating and maintaining these markets would be to put buyers in direct contact with growers, and this is where information technology and connectivity are a key medium exchange.

#### **4. Immediate workshop outcomes, proposed follow-up activities and recommendations**

##### **4.1 Specific immediate follow up:**

- Development of a policy brief on organic farming and climate change for policy makers in preparation for Copenhagen Conference on Climate Change in December 2009;
- Follow up correspondence with Permanent Secretary, Ministry of Agriculture, Jamaica to include at least one organic farm per parish in the pilot initiative to test out parametric index insurance in the country;
- Send organic farming and climate change research findings and references to head of Climate Change Committee of Jamaica (CCC), Jamaica;
- Local development of customized software package for on-line carbon footprint on-line measurement tool for use by smallholder farmers in the Caribbean;
- Draw up plans for further regional training workshops for women farmers.

##### **4.2 General outcomes:**

- Further refinement of the NID methodological training model for semi-technical women farmers to include climate change;
- Connecting the new participants to others in their countries who are current members of the Knowing and Growing network;
- Critical awareness of the local institutional support that needs further development to ensure that they are not functioning at cross- purposes but also that they involve and engage farmers. This includes those responsible for solid waste management, national security forces, national water commission, forestry, meteorological office, climate risk insurance bodies, tourism, aqua and fisheries development, etc;
- Acknowledgement that JOAM is an important player for the region as a whole and that more needs to be done to build in-house capacity, human resources and funding base;
- Building the theoretical and technical knowledge base of women farmers in organic farming philosophy and techniques and in organic standards in the region;

- Stimulating the cross-fertilisation of organic know-how and management processes between farming entrepreneurs in the region, using traditional means of communications and evolving information technologies;
- Harnessing those aspects of the Internet, which will provide women farm entrepreneurs in the region with relevant communication, marketing, management and information tools;
- Continue to widen and deepen the regional information and marketing network of organic farmers initiated in April 2004, to help local farmers market themselves on other virtual networks and to network with each other.

NID will continue to work with women to enable them to find their voices and alliances and network for action beyond the farm.

## **5. NID Training Methodology**

The workshop facilitators ensured that the workshop provided participants with opportunities to:

- draw the links between their individual actions, their collective activities and the political, trade and agricultural contexts that they work in;
- recognize the potential impact of their local decisions on national, regional and international developments, including adapting to and mitigating the effects of climate change, its impacts on food policy and security;
- realize that they are members of a worldwide movement that flourishes beyond their immediate communities who share the same goals and visions;
- engage in discussions with a range of local and regional institutional bodies that are responsible for the environment, conservation and managing climate change.

Women are often faced with real and immediate choices and decisions – such as whether or not to use GMO seeds – without all the information at hand. It is striking how many myths, misconceptions, or misinterpretations abound in both organic farming and in ICTs. There are also broader and emerging concerns regarding climate change and its negative consequences for many farmers that the organizers addressed through the technical training.

**Knowing and Growing** provides a confluence of interest between women farmers who need capacity building both in their farming methods and management and in their information and computer skills. ICT training has more immediate outcomes when the training is offered within a context that lends itself to the benefits offered by ICTs – particularly in networking and communications between and amongst interest/user groups. There is additional value in bringing dispersed groups together for technical training because participants often find common solutions to common problems, explore technical skills together and learn from each other, and the learning process and communication channels offered by ICTs bring them closer together long after the training workshop ends. NID capitalizes on the dynamics of bringing women together and offering them the space to explore technical know-how and related experiences and always within a socio-economic and political context.

NID and JOAM deliver a tried and tested training methodology, the keystones of which include:

- Ensuring that every participant is brought into the dialogue and discussion right from the beginning of the program as equal and valued contributors of knowledge and experience;
- Bringing in a wide range of local content and local stakeholders to contribute local context and analysis to the overall program, while providing the participants with the opportunity to interact directly with specialists;
- Providing some structure to the overall program while allowing for fluidity and changes as determined by the participants and other local stakeholders.

In this way, a comprehensive training program is designed and developed in collaboration with participants, resource persons and local 'mediator' or 'service' agencies wherever possible. This ensures full and active participation on an ongoing basis between participants and local resource persons, and maximises the learning process.

The focus of the training is people centred rather than goal oriented and is guided ultimately by the process of self-discovery. This method of training encourages confidence building, skills in problem solving and self-empowerment. It is a particularly effective mode of training for those who value the creation of networks and peer groups to build alliances and to share ideas.

Our workshops provide space for five different components for training interaction:

- On-line training sessions
- Issue-specific facilitated discussions
- Context specific discussions
- Field trip
- Video screenings and discussions

**KNOWING AND GROWING WORKSHOP REPORT  
JAMAICA JUNE 2009**

**Appendices**

Appendix I: Workshop schedule

Appendix II: Participant details

Appendix III: NID & JOAM Profiles

**KNOWING AND GROWING WORKSHOP REPORT  
JAMAICA JUNE 2009**

	<b>Day I: Sat 27<sup>th</sup> June</b>	<b>Day II: Sun 28<sup>th</sup> June</b>	<b>Day III: Mon 29<sup>th</sup> June</b>	<b>Day IV: Tues 30<sup>th</sup> June</b>	<b>Day V: Wed 1<sup>st</sup> July</b>
9.00-10.30am		<b>Natural systems</b> What makes up natural systems? weather forecast, seasonal drivers and prediction capacity	<b>Farm Visit</b> Woodford Market Garden Donna Noble, organic farmer	<b>Climate risk insurance</b> Norman Foster, V.P, Regional Business Development, CGM Brokers	<b>Final working session</b> Next steps: how participants could follow up, identifying priority needs, training & resources.
11.00 - 12.30pm	<b>Arrivals &amp; registrations</b> <b>Refreshments for participants</b> (M.Sc. classroom, UWI)	<b>Sea level rise impacts</b> what this will mean for land use, farming & forestry in the Caribbean	<b>Farm visit mapping exercise</b> David Dolly, Erle Noronha-Rahaman and Dorianne Rowan-Campbell	<b>Footprints on the farm</b> Mapping your farm's carbon footprint	<b>10.30 Public forum</b> (Inter Faculty Lecture Room) Presentation, discussion, questions to consider
2.00-3.30pm	<b>Appendix I Workshop schedule</b> <b>Workshop facilitators: Nidhi Tandon and Dorianne Rowan-Campbell</b> Background workshop, workshop objectives, intro to Knowing & Growing network	<b>Land degradation &amp; conservation</b> Conserving crop and wild species seeds - our rich heritage of bio-diversity. Flood and erosion control	<b>Computer room</b> Visit of local organic farms in Jamaica and Trinidad	<b>Computer room</b> Basic training for beginners on-line sources and information for seasoned surfers	<b>Thanks &amp; departures</b>
4.00 - 5.30pm	<b>Presentation &amp; facilitated discussion:</b> Drawing the links between organic farming and climate change: why this is important - the role of the organic farm	<b>Agriculture &amp; farming systems</b> How the organic farm can mitigate against climate change. Preparation for, during & post disaster	<b>Discussion roundtable</b> Farm visit reflections Local knowledge & climate change, how to combine this with organic & permaculture methods, sharing our learnings	Computer room cont. GIS Mapping Carbon footprint measures	
Evening Program	<b>DVD &amp; group discussion</b> Organic farming & climate change	<b>Presentation &amp; discussion</b> Weather stations & data collection: Clifford Mahlung, Jamaica Meteorological Service	<b>Presentation &amp; discussion</b> Forestry & climate change Owen Evelyn, Senior Director, Forestry Department, Jamaica	<b>Social event</b> Dinner at UWI	

**KNOWING AND GROWING WORKSHOP REPORT  
JAMAICA JUNE 2009**

**Appendix II: Participant details**

<b>Last Name</b>	<b>First Name</b>	<b>Country</b>	<b>Address details</b>	<b>Email</b>
1 <b>Anderson</b>	Bryan	Jamaica	Knightsville District, Yallahs P.O, St. Thomas	<a href="mailto:Bryananderson57@yahoo.com">Bryananderson57@yahoo.com</a>
2 <b>Braun</b>	Markus	Jamaica	Lambs River P.O, Westmoreland	<a href="mailto:Mkcaribbra@gmail.com">Mkcaribbra@gmail.com</a>
3 <b>Connor</b>	Raslyn	St. Kitts	Saddlers, Basseterre	<a href="mailto:Rasbogo@hotmail.com">Rasbogo@hotmail.com</a>
4 <b>Dolly</b>	David	Trinidad	University of West Indies, St. Augustine Campus	<a href="mailto:Farmdavid42@gmail.com">Farmdavid42@gmail.com</a>
4 <b>Hamilton</b>	Audrey	Jamaica		<a href="mailto:Audrey5056@gmail.com">Audrey5056@gmail.com</a>
5 <b>Hamilton-Taylor</b>	Ashley	Jamaica	Dept. of Mathematics & Computer Science, UWI, Mona Campus, Kingston 7	<a href="mailto:aghamiltontaylor@gmail.com">aghamiltontaylor@gmail.com</a> , <a href="mailto:Ashley.taylor@uwimona.edu.jm">Ashley.taylor@uwimona.edu.jm</a>
6 <b>McLean</b>	Eistein	Jamaica	Cumberland, Portmore	<a href="mailto:Eistein_u@yahoo.com">Eistein_u@yahoo.com</a>
7 <b>McNish</b>	Oronder	Jamaica	Port Morant, Morant Bay, St. Thomas	<a href="mailto:Orondemcnish@yahoo.com">Orondemcnish@yahoo.com</a>
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9 <b>Porchetta</b>	Mario	Barbados	UN House Marine Garden, Christ Church	<a href="mailto:Mario.prochetta@undp.org">Mario.prochetta@undp.org</a>
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### **Appendix III: NID & JOAM Profiles**

**Networked Intelligence for Development (NID)** ([www.networkedintelligence.com](http://www.networkedintelligence.com)) is a Toronto-based network of independent consultants and trainers specializing in new media, information and communication technologies, rural communications and development. Our consultants have held senior positions in multi-lateral organizations, governmental and intergovernmental organizations, broadcasting and media institutions, research institutes and non-governmental organizations.

We are able to provide advice and know-how on a wide range of economic development concerns offering a first-hand understanding of grassroots, small business and government-level policy planning. Established in 1997 with a commitment to promoting economic and social equity, we work with a wide spectrum of communities at different levels in developing and transition countries.

Our common mission and objective is to harness the benefits of evolving information and communication technologies and new media, to enable people to tell their own stories, to bring out their creativity and to express their informed choices about the decisions that affect their lives and identities in the information era.

**The Jamaica Organic Agriculture Movement Limited (JOAM)** [www.joamltd.org](http://www.joamltd.org) is a non-profit, non-governmental organization created to foster an organic agriculture industry in Jamaica. The mission of JOAM is to facilitate the development of a sustainable and economically viable organic agriculture sector in Jamaica while maintaining organic integrity, promoting health, environmental consciousness, and social responsibility.

JOAM was established in May 2001. In its years of existence, JOAM has made significant strides in the development of the local organic industry and is considered the leading organic agriculture organization in the Caribbean region. The main objectives of JOAM are to:

- Lobby for and assist in the development of an effective local organic agriculture industry
- Assist local producers who are interested in the conversion to and certification in organic agriculture
- Promote and facilitate the production, distribution and consumption of all types of organic agriculture products
- Advance and promote better environmental and human health through the acceptance and practice of organic farming techniques

The focus of JOAM over the last two years has been in strengthening the organization, increasing organic production and certification, and laying a framework to build and strengthen the local industry. JOAM continues to be the source of knowledge on organic agriculture and has been involved in the training of farmers, extension officers and technocrats in the principles and techniques of organic agriculture.

**The success of this workshop was assured due to the participation and enthusiasm of all the participants and resource persons and the extra support of a few people.**

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END NOTES

<sup>i</sup> What makes our food system really unsustainable is the predominance of the globalised commodity trade that has resulted in the integration of the food supply chain and its concentration in the hands of a few transnational corporations. This in turn has greatly increased the carbon footprint and energy intensity of food production and consumption.

<sup>ii</sup> Climate Change 2007: impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge, UK, pp. 173-210

<sup>iii</sup> As codified in the FAO/WHO *Codex Alimentarius*, Organic Agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. An organic production system is designed to a) enhance biological diversity within the whole system; b) increase soil biological activity; c) maintain long-term soil fertility; d) recycle wastes of plant and animal origin in order to return nutrients to the land, thus minimizing the use of non-renewable resources; e) rely on renewable resources in locally organized agricultural systems; f) promote the healthy use of soil, water and air as well as minimize all forms of pollution thereto that many result from agricultural practices; (Codex Alimentarius 1999) The FAO definition of "Organic" is "certified organic products are those which have been produced, stored, processed, handled and marketed in accordance with precise technical specifications (standards) and certified as "organic" by a certification body.

<sup>iv</sup> International Trade Centre UNCTAD/WTO and FiBL - Organic Farming and Climate Change 2007. In two long term comparison experiments in Switzerland, the global warming potential of all crops was reduced by 18% in the organic plots.