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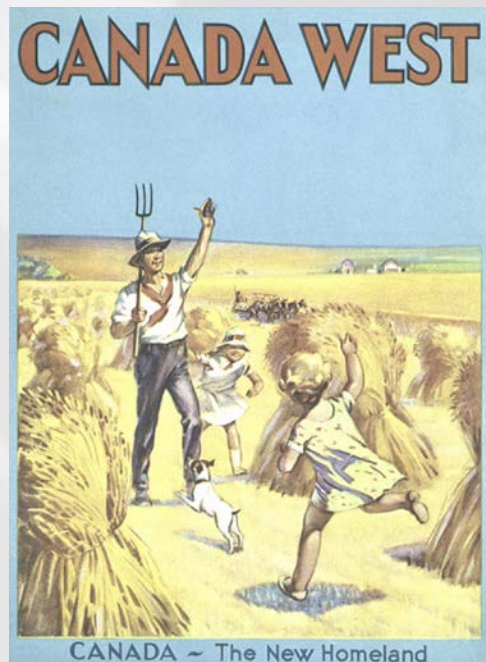
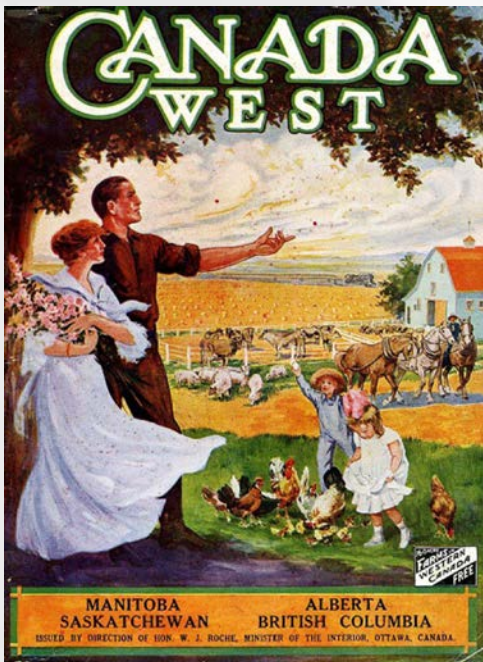
Photo from Burkina Faso by Andrew Esiebo, The Gaia Foundation



HALF THE SKY, HALF THE LAND

The Role of Women Farmers in
Transforming Global Agriculture

by Hugh Locke



HALF THE SKY, HALF THE LAND

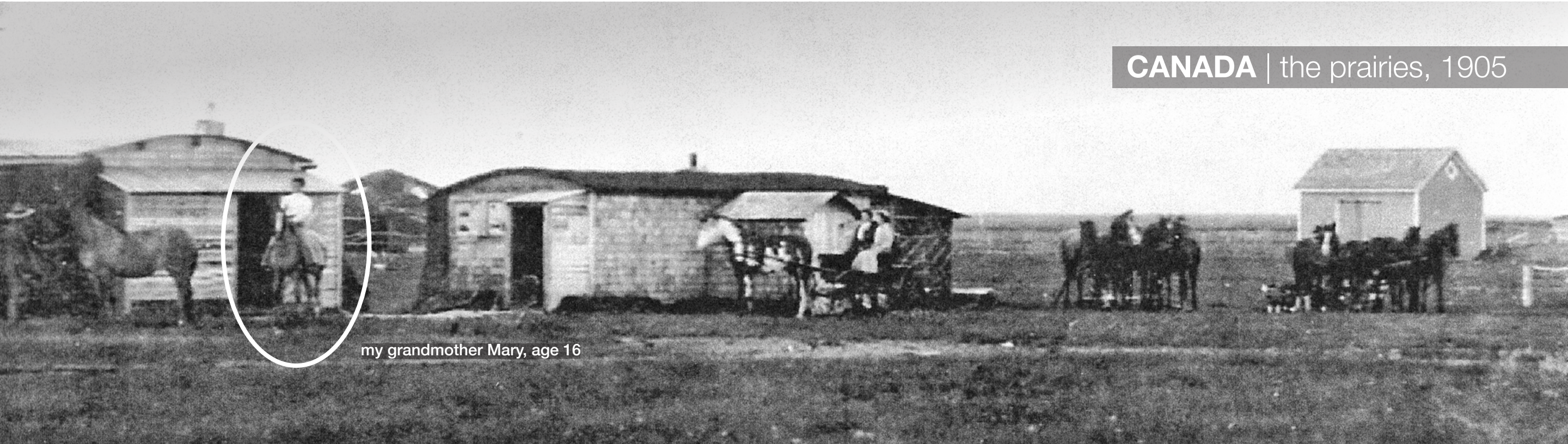
The Role of Women Farmers in Transforming Global Agriculture

Following is the text and accompanying images from a presentation made by Hugh Locke on November 3rd, 2018 at the Parliament of the World's Religions in Toronto.

Between 1870 and 1930, several hundred thousand men claimed homestead farmland on the Canadian prairies. All you needed was \$10 and a Y chromosome, and you could own 160 acres. The Y chromosome because women could come as wives and daughters, but were legally barred from claiming a homestead in their own name. The sole exception was for women who were widowed and had minor dependent children.

My widowed great grandmother, Alice was one of the very few who qualified in this cate-

gory. She arrived on the prairies in 1905 with three daughters aged 10 to 16 and claimed a homestead in her own name near a newly minted farming community in Saskatchewan that didn't even have its own name yet, but was soon called Zealandia. I'd like to begin by dedicating my presentation to these four courageous women farm pioneers: my great grandmother Alice, my much-loved-by-me grandmother Mary and her sisters Effie and Isabella. I'm also shamelessly claiming some female ancestral creds as I stand here before you... a man talking about women farmers.



CANADA | the prairies, 1905

my grandmother Mary, age 16



HAITI | photo by Andres Cortez,
Smallholder Farmers Alliance



It was Chairman Mao who said “women hold up half the sky.” I’ve borrowed part of that phrase and added “half the land” in order to frame a topic as big in scope and as vital to the world as the role of women farmers in transforming global agriculture.

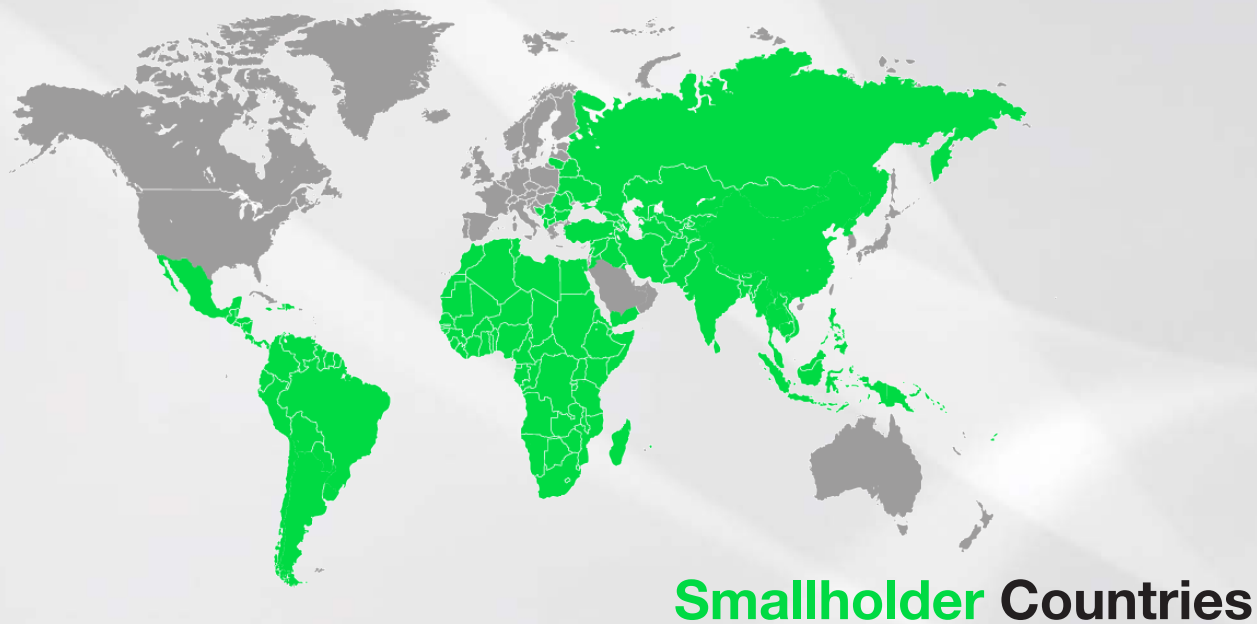
Women like Jacqueline (previous page), who farms in Haiti. She qualifies as a smallholder farmer because she has less than 2 hectares... or 5 acres.

And it’s specifically smallholder women farmers that I’m focusing on at the Parliament today. But because the whole category of smallholders is so misunderstood, I’m going to begin with smallholders in general, both female and male, throughout the developing world.

“Developing” is a completely outdated term that needs replacing because it’s absurd to lump China and Russia with economies like Chad and Sudan. However, a change of color and a slight title adjustment, and this map suddenly becomes incredibly accurate because these are precisely the countries with smallholder farmers.

Meet the husband and wife team of Rosemary and Gustave (below). They were among the first smallholders I met in Haiti, where I’ve been working for the past 13 years. They farm together on a small plot and grow onions, corn, eggplant and beans, depending on the season, and sell their produce in local markets.

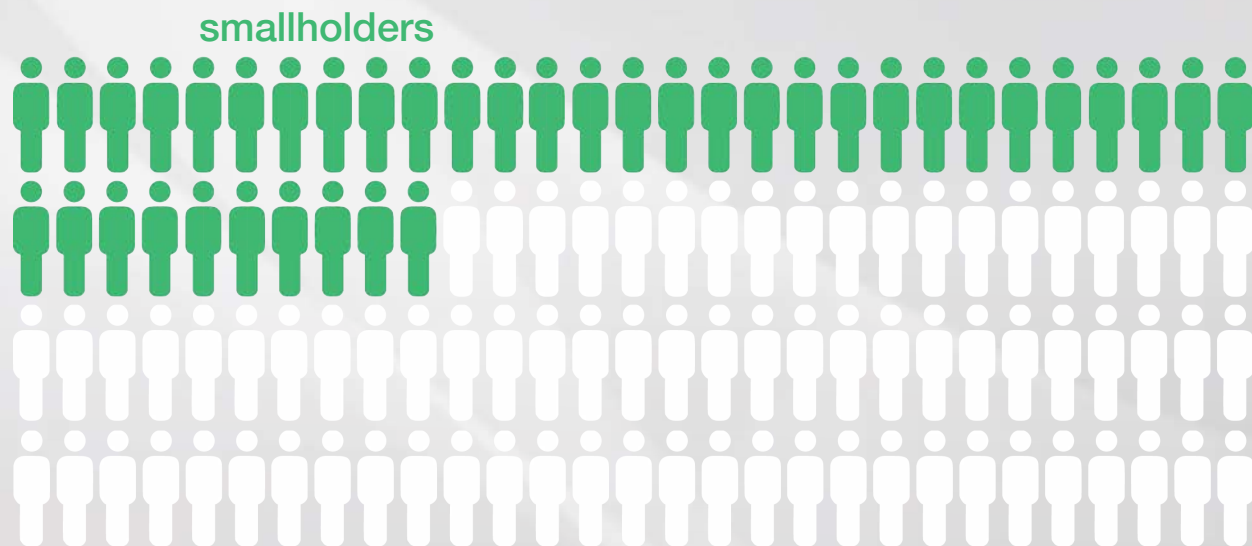
It’s the Rosemarys and Gustaves of the world who, although largely unseen and mostly



HAITI | photo by Sebastian Petion, Smallholder Farmers Alliance

Smallholder Stats

- 1 500 million smallholder farms
- 2 family provides labor
- 3 average of 5 per family
- 4 500 million x 5 per household = 2.5 billion



forgotten, have the collective potential to help solve three of the biggest challenges facing humanity as it relates to food, climate and gender equality:

- How to grow more food to feed an expanding global population;
- How to stop and reverse the relentless juggernaut of climate change; and
- How to achieve equality between women and men, because if half the world is permanently held back then nothing is going to work at full capacity.

So, a privileged white male sounding off about smallholder farmers saving the world... I know, just a hint of a credibility gap. But it all started when I began working with Rosemary, Gustave and others. I wanted to learn more about the situation of smallholders both in Haiti and elsewhere. And this led to research which eventually led to uncovering four key statistics which now anchor my work.

First. There are currently around 500 million smallholder farms throughout the developing world. And again, these are farms under 2 hectares, or 5 acres. Some sources say 450 million and others say 550 million. But let's take 500 million as a workable number.

Second. Smallholder farms are by definition family farms. That means that family members—wife, husband, kids and often grandparents—provide most if not all of the labor to run the farm.

Third. An average of five people live and work on each farm.

Stay with me here... because statistic number four pulls it all together with some

basic math: 500 million smallholder farms with an average of 5 people per farm comes to a total of 2.5 billion.

The global population is now 7.6 billion, which means that one third of humanity live and work on smallholder farms.

That's 200 million more than the combined populations of the 53 countries, including Canada, that make up the Commonwealth. I don't know about you, but I find this to be truly amazing!


And some 43% of all smallholder farmers are women such as this group from Benin (next page). This is a photo by Fabrice Monteiro that was part of an exhibition last month in London called, "We Feed the World." The Gaia Foundation sent world-renowned photographers out to capture images of smallholders to celebrate small-scale farming and agro-ecology.

These women from a village in southeastern Benin formed a farm co-operative to ensure that their traditional knowledge can be passed down from one generation to the next. And their ancestral seed varieties, which are turning out to be resilient to climate change, will be handed on to their daughters.

Women farmers like this grow more than half of all food in developing countries. And yet taken together, women farmers have less than one quarter of the access to seeds, agricultural training, farm credit and other forms of support as do their male counterparts. What's becoming clear now is that when women do have the same access to resources and training as men, farm yields go up 20 to 30% on average. And these increases are directly related to gender equality.



BENIN | photo by Fabrice Monteiro, The Gaia Foundation



Having realized that a third of humanity depends on and are engaged in smallholder farming, a question took shape in my mind: if we are one human family cohabiting one planet, how can a third of that family be seemingly invisible? Because I don't know about you, but having been involved for most of my professional career in humanitarian and environmental issues, smallholders were never more than a footnote in my worldview until a few years ago.

I think the reason can be traced back to the late 1950s and early 60s. There was a widespread belief around that time that global food production was not expanding fast enough to keep pace with population growth, and that by the 1990s we would be facing worldwide famine. People forget now what a huge issue this was during that period.

The response, then, was to promote the industrialization of agriculture. Massive resources were applied to the research and development of new technologies for growing monoculture hybrid crops on large tracts of land that required mechanization along with chemical fertilizers, herbicides and pesticides to produce higher and higher yields.

This took place in the developed countries of the north, while in developing nations the same process was called the Green Revolution.

By the late 1960s there was indeed a huge increase in agricultural production worldwide. And there is no question that what could have been a major global disaster was averted.

However, the environmental cost was enormous and industrial-scale agriculture continues to be a major contributing factor

driving climate change and reducing biodiversity, among other things.

The industrialization of agriculture was reinforced by the rise, at around the same time, of the post-Marshall Plan version of development assistance. The rich countries of the north helping the poorer countries of the south to improve their economies.

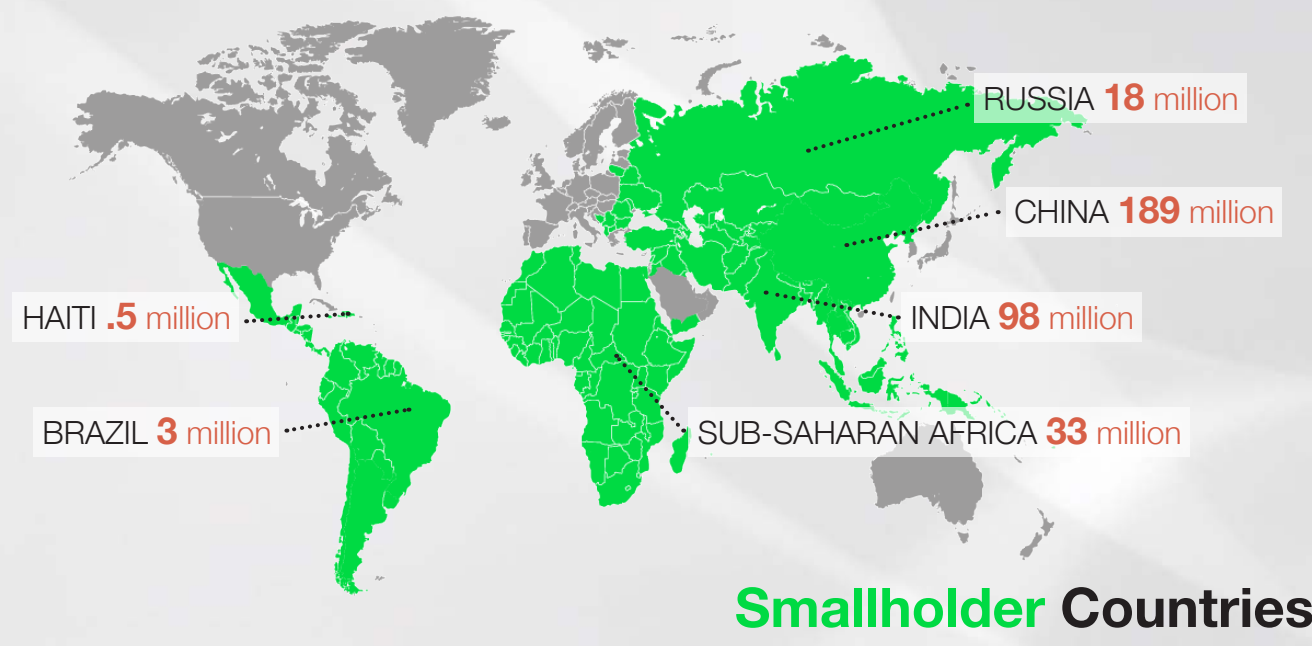
Countries like Canada, the United States, the United Kingdom and others began to provide substantial funds to build bridges, schools and roads in poor countries throughout Africa, Asia and South America.

I'm not suggesting this assistance was pure unadulterated philanthropy, because it was not, but one key condition of this support was that the recipient developing countries had to stop supporting domestic agriculture. The exception was industrialized farms geared to export.

Developing countries were encouraged to become net importers of food. Encouraged, in particular, to import the cereal grains now being grown on industrial-scale farms beyond their borders.

Take a country like Haiti. Up to the mid-80s they were almost entirely self-sufficient in growing their own food. Now Haiti imports more than half of all its food.

Each country has a slightly different scenario, but the net result of 60 years of enforced policies of not supporting smallholder domestic agriculture has resulted in many developing nations being dependent on food imports. Not to mention that industrialized agriculture has led to 75% of what the world now eats being based on just 12 plants and 5 animal species.



Smallholder Countries



CHINA | photo courtesy of Oxfam

Smallholders have long been seen as outright obstacles to progress. They have been cut off from agricultural training. Entirely cut off from research into improving small-scale farming. Given very limited access to credit services. Cut off from most forms of support that the state, financial institutions and research centers provide to industrial agriculture. Excluded from trade agreements. Never at the table for discussions on tariffs or embargoes. The list goes on.

This is how the cloak of invisibility was pulled over one third of the world's population.

And yet they did not go away. There are 189 million smallholder farms currently in China; 98 million in India; 18 million in Russia; 33 million in Sub-Saharan Africa; and, 3 million in Brazil. There are half a million in Haiti, which only has a total population of 11 million people.

With so much pressure to go away, why are these smallholders still here?

I put it to you that it's because small-scale family farming is central to the human condition. This direct connection with the earth and growing food is inseparable from who we are as a species.

So, what if there was a way to right this historic wrong and pull back the invisibility cloak on the world's smallholder farmers?

And what if, in doing so, they could be enlisted as a global force to help in addressing, as I suggested earlier, some of the greatest challenges we face as a human family: achieving food security, combatting climate change and reaching gender equality?

Most of what happened to keep smallholders down for so long was external and beyond

their control. But there is one thing that is part of the culture of every country in the world, to varying degrees, and that is the failure to accept and implement gender equality. It took no outside influence for smallholder farmers to reflect the larger cultures around them and systematically withhold from women farmers virtually every kind of support that male farmers take for granted as part of the divinely ordained status quo.

It is for this reason that I am framing today's talk in the context of women farmers. We have a unique opportunity to rebuild the worldwide smallholder farming community to be a global force for good.

But here is the key to the whole concept: no initiative, no community, no civilization, no global undertaking will ever reach its full potential unless and until women achieve full, unfettered and unquestioned equality with men. Why would anyone even think about a plan to improve the human condition and handicap it from the start by not building in the emancipation of women at its core?

Women like these farmers from Burkina Faso (next page). Seven years ago their village was suffering from a severe lack of food and income. The women banded together and took over agriculture in the area. They became the main income earners for their families and used ecologically sound techniques to build soil fertility, preserve water and navigate the droughts brought on by climate change. They used agriculture to change their community's destiny.

I'm happy to be able to impart some good news today, and that is the smallholder revolution has begun. It's still below the radar,



BURKINA FASO | photo by Andrew Esiebo, The Gaia Foundation



BOLIVIA | photo by Nick Ballon,
The Gaia Foundation

Smallholder Revolution

1 create a new **worldview category**



but it has started to take shape over the last several years. One project at a time, one region at a time.

Many successes and many failures to be learned from.

The revolution doesn't have a name yet. No logo. It does have some heroes to be sure, like Vandana Shiva and Wanjira Mathai and others who are here at the Parliament. But the thousands of projects and experiments and ideologies supporting smallholder farmers throughout the developing world have yet to meet and form any kind of a coherent movement. It is coming. It's building. But it's not quite here yet.

And this is probably a good thing, because there's some serious work to be done in order to make sure this revolution comes with a clear plan of action.

This is where you come in. People from so many different faith communities and areas of the world. People here today whose involvement in development activities is shaped by your faith, as mine is by the Bahá'í teachings.

And just to clarify, I am not speaking on behalf of the Bahá'í Faith or its institutions. This is just me trying to serve like I mean it when I quote, "the earth is but one country and mankind its citizens."

It is to everyone in this room that I would like to propose four specific actions through which you can help shape and be part of the coming smallholder revolution.

The first involves creating a new worldview category. A philosophical tweak if you will.

Beginning in the late 1980s I was privileged to be part of the Bahá'í community's participation in an interfaith project conceived of and led by Prince Philip, who was then President of WWF-International. The goal was for each participating faith community—Christians, Jews, Muslims, Sikhs, Buddhists, Hindus, Bahá'ís and others—to explore how their respective members could support conservation goals. While there was already a great deal in the Bahá'í writings about respect for nature and the environment, our involvement in this process led to a sustained effort to highlight these teachings and encourage Bahá'ís to find ways to act on them. For me, the net result was to make a permanent adjustment to my perspective.

Conservation had always been on my radar, but now it was further shaped and given importance by the faith community that I was part of.

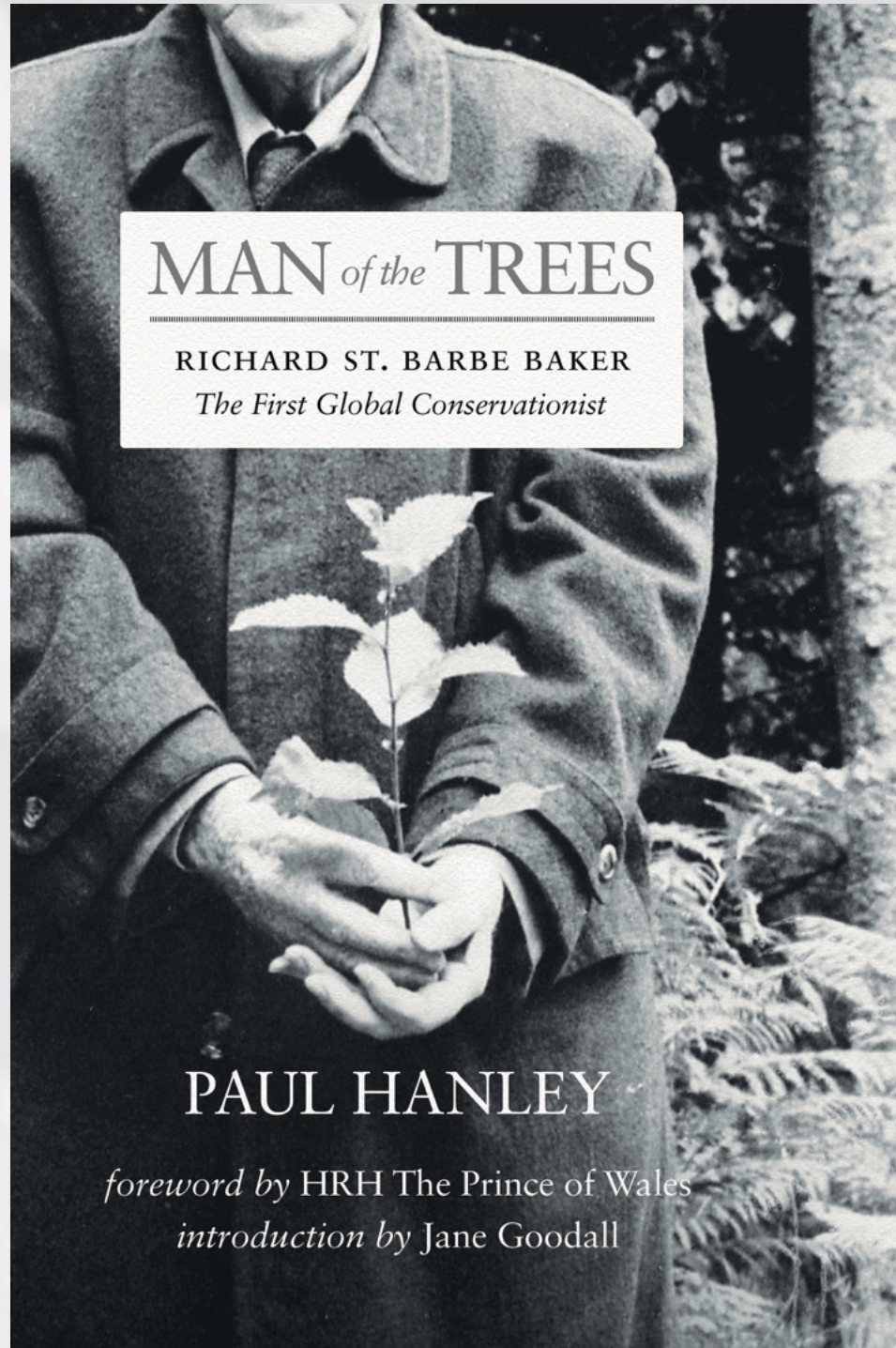
What began as a WWF initiative now lives on as the independent Alliance of Religions and Conservation, shown here meeting in 2015.

I would like to suggest that a similar interfaith process be initiated around smallholder farming, with an emphasis on women smallholders. I should note this comes from the peanut gallery, as it were, because it's not an initiative I can take on. But I see the need for it because it is hard to be supportive of smallholders if they aren't already part of your worldview.

I would also like to mention a new biography of my first mentor and fellow Bahá'í, the late Richard St. Barbe Baker, also known as the Man of the Trees. I mention this book, which was published last month by the University of Regina Press, because St. Barbe, as his friends called him, was a genius at under-



HAITI | photo by Sebastian Petion,
Smallholder Farmers Alliance



MAN *of the* TREES

RICHARD ST. BARBE BAKER

The First Global Conservationist

PAUL HANLEY

foreword by HRH The Prince of Wales

introduction by Jane Goodall

standing the impact of worldviews. He was able to seamlessly integrate tree planting and conservation into the cultural DNA of millions of people from all walks of life and all corners of the globe. The author is my good friend, Paul Hanley.

Next, I would like to make a case for developing and supporting what I would call disruptive solutions.

I feel the time has come to create and support truly innovative solutions that can be scaled and replicated. Business as usual has failed smallholder farmers. And frankly, development assistance in its current form has largely failed smallholder farmers. I would like to briefly share my own experience of one disruptive solution that may hold some useful lessons in this regard. The story begins in Haiti.

Haiti is seriously deforested. At the same time its half a million smallholder farms are underperforming, due in large part to the lack of trees that leads to flooding and soil erosion.

The resulting low yields puts pressure on farmers to supplement their income by cutting trees to produce charcoal. The result is a self-reinforcing downward spiral.

Some years ago I teamed up with Haitian agronomist Timote Georges, and we set out to plant trees. And I should note that Timote draws as much on his strong Christian faith as I do on the Bahá'í faith.

We began by approaching smallholder farmers to do the actual planting of the trees, but they weren't interested, even when we offered the trees for free. We then switched

Smallholder Revolution

- 1 create a new **worldview category**
- 2 develop and support **disruptive solutions**



direction and asked what the farmers needed, thinking this might give a clue as to how we could get them interested in planting trees. The answers distilled down to three things. They needed better quality crop seeds, but these were too expensive. They needed good hand tools, but these were also expensive. And they desperately needed training to improve their agricultural techniques, but none was available.

Out of this came the idea of tree currency. Farmers growing, transplanting and looking after trees in order to earn credits that they can exchange for non-hybrid, open pollinated crop seeds, hand tools like hoes, shovels and machetes, and training in organic agriculture.

What we found when these services became available was that crop yields went up a

minimum of 40% and household income between 50 to 100%. And everything, tree nurseries and agriculture, is run entirely on organic principles.

For some 6,000 Haitian farmers who are now part of the Smallholder Farmers Alliance (SFA), trees are now worth more in the ground than cut for charcoal. We have 30 nurseries around the country and to date the farmers have planted over 7 million trees. In one area north of the city of Gonaives, farmers have reforested several sites like this one (photo on page 15) and they will eventually be connected to form the first green belt of its kind in Haiti.

Tree currency is now used for more than just seeds, tools and training. Farmers use their credits for participation in seed banks, to obtain livestock, for adult literacy classes



Timote Georges and Hugh Locke





HAITI | photo by Andres Cortez,
Smallholder Farmers Alliance



HAITI | photo by Andres Cortez,
Smallholder Farmers Alliance

Smallholder Potential

1 achieving **food security**



2 reversing **climate change**



3 reaching **gender equality**



and water source upgrades. Tree currency also allows farmers to take part in and benefit from *kombits*, which is a Haitian creole word for neighbors volunteering to help each other for planting and harvest. It's a long tradition in the country but the pressure of extreme poverty has eroded it over time.

Women and men, when they farm together, are equal but separate members of the SFA, which meant definitely going against the norm when we started. Women members, through tree planting, get targeted support in the form of micro-loans exclusively for them, along with specialized business and leadership training.

The agricultural services all the farmers earn by tree planting are implemented by the farmers themselves, with a minimum of oversight and management. We gradually turn everything over to the farmers to run. And a cardinal rule is that the farmers involved in implementing each service have to include a balance of women and men, so that gender equality is becoming an accepted norm. Part of their cultural DNA.

This summer, 100 of our smallholder members planted the first commercial cotton crop in Haiti in 30 years. We are reintroducing cotton as a high-value organic export to complement, but not replace, local food production. The Timberland company has committed to purchasing up to one third of their annual global cotton purchase from our farmers, subject to price and quality. Patagonia and Vans have also expressed their interest and we're currently in discussion with several other companies.

Over the next 5 years we plan to scale up to 14,000 farms growing around 10 million

pounds of organic cotton a year. And because the farmers will continue to participate through tree currency, we project an additional 25 million trees will be planted during that time.

In terms of the big three issues I mentioned previously, namely food, climate and gender equality: the SFA farmers are close to doubling their food output using our model. Imagine if that was extrapolated to the worldwide community of smallholders. Our farmers grow that additional food organically and plant trees to finance their operation, both of which help combat climate change. What if one third of the world was similarly engaged? And the SFA farmers are setting a new bar for gender equality in their communities. There's still a ways to go before reaching full equality, but think of this process being applied to a third of the world and the ripple effect that could have.

The Smallholder Farmers Alliance will eventually cease to exist. What my colleague, Timote and I hope for is that the SFA, as an organization, will be the catalyst for a movement that we ultimately can not and should not control. A movement that we hope will lead to a revolution. And may that revolution get exported to other parts of the world.

The third action in support of the revolution can be summarized as "be able to measure."

In all of this, it's not enough to set out to do good things in support of smallholder farmers and hope for the best without data backup.

While there are other models out there, the SFA is working with Columbia University and several expert groups to develop a new data management system to precisely track and



HAITI | photo by Thomas Norielle,
Smallholder Farmers Alliance

Smallholder Revolution

- 1 create a new **worldview category**
- 2 develop and support **disruptive solutions**
- 3 be able to **measure impact**

measure the impact of a given crop on smallholder income, food security, climate change and gender equality.

Using next generation technology, our goal is to provide a field-level data service to smallholder farmers while at the same time measuring the social and environmental impact of their crops. We are making this service blockchain-ready so that we will be able to verify the data as it moves through the supply chain to the export stage and on to buyers and end consumers. We've begun field testing a beta model with farmers, and the results so far have been very encouraging.

One outcome of this will soon enable you to make informed purchases of smallholder-grown products. For example, two cotton t-shirts in a store of similar quality and price. Our goal

is for one or both to have a barcode that you can scan to learn which smallholder farmers grew the cotton and in which country. You will learn what organic protocols they used to grow the cotton. How did the crop impact the families growing it? How did it affect the environment? What was the impact on food security? And how did it improve the situation of women farmers?

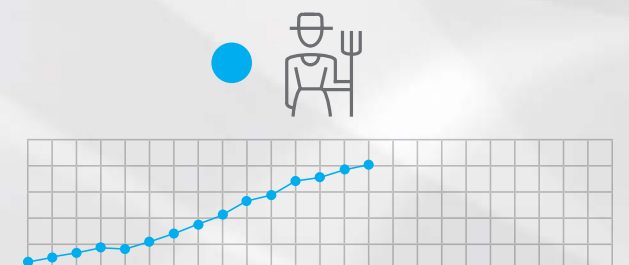
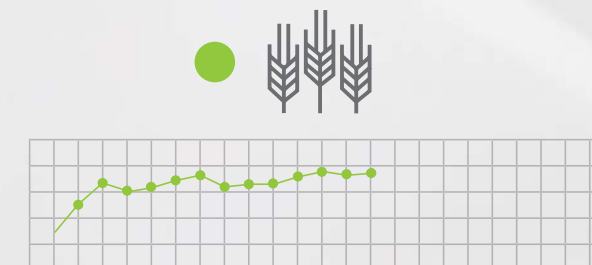
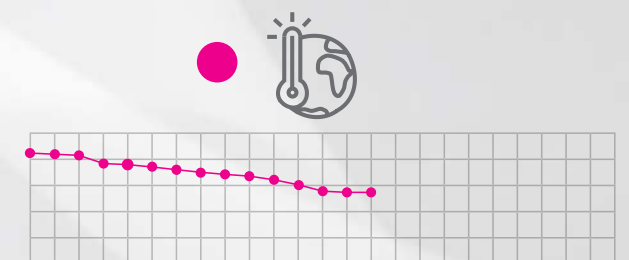
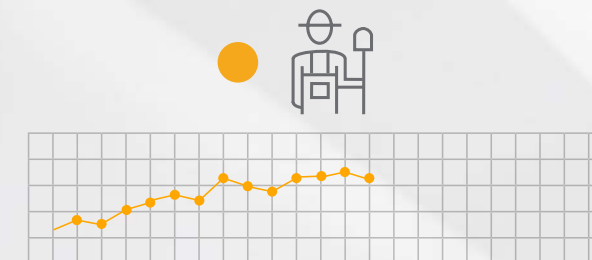
Data to track and measure impact is only one tool, however, and I don't want to suggest that technology alone is ever going to be a stand alone panacea.

The final action that I am suggesting is to have an exit strategy before you start.

When contemplating a project of any scale to support smallholder farmers, if you haven't



HAITI | beta testing data management system



Smallholder Revolution

- 1 create a new **worldview category**
- 2 develop and support **disruptive solutions**
- 3 be able to **measure impact**
- 4 have an **exit strategy**

designed your exit strategy from day one, then you are part of the problem.

Even with the best of intentions, it's very easy to create a dependency rather than build capacity. Plan from the outset for any project to function entirely without grants and without oversight within a designated period of time. The developing world is already littered with the carcasses of abandoned agricultural projects that stopped the day the funding stopped. We certainly don't need any more examples in this category.

Some examples of how this can be accomplished are drawn from the Smallholder Farmers Alliance experience in Haiti. Find companies that want to buy organic produce and turn that into actual purchase orders if you

want to get into exporting. The “if you build it they will come” approach, when applied as a business model, is a recipe for disaster.

Next. Make sure women farmers participate equally with men and have equal access to leadership roles and resources.

Then, never give cash handouts to farmers: in our case they earn every agricultural service through planting trees. And every one of these services—including farmer training, micro-credit loans, seed banks and so on—are all operated by farmers themselves from the outset, under our guidance and training, so they can eventually take over everything.

And very importantly, all 30 of our tree nurseries, which are at the heart of our operation,



HAITI | smallholder farmers

are on land donated by the community in order to minimize ongoing operating costs and ensure full community buy-in.

I would like to conclude with an announcement. As of today, smallholder farmers everywhere will soon have their very own superhero and her name is Tanama. She is the creation of a young Haitian artist and illustrator, Thony Loui. Tanama's first comic book will be out within the next year and you'll be able to follow her adventures as she helps smallholder farmers stand up to the formidable forces and evil characters bent on destroying the environment and family farming. Tanama will also be used in classroom curriculum on the environment, gender equality and the importance of smallholder farming.

We want kids to know that smallholder farming can be as cool as Bytedance, and if that term doesn't ring any bells, just ask the nearest teenager.

I invite you to join in supporting Tanama's mission, which is to unleash the power of smallholder farmers—and women farmers in particular—to change their own destiny as well as the world's.

Illustration adapted by Thony Loui from a photo by Fabrice Monteiro, The Gaia Foundation.

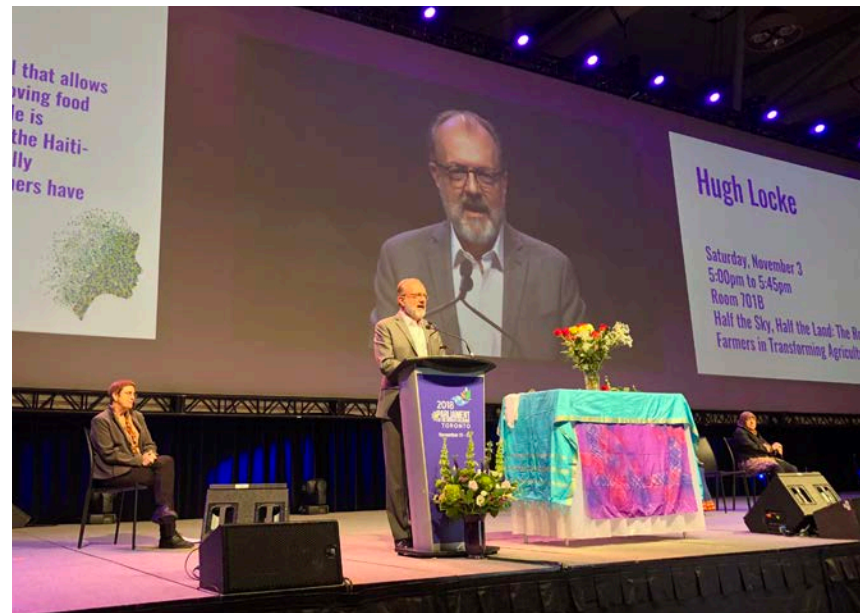




HAITI | photo by Andres Cortez,
Smallholder Farmers Alliance

With thanks to the

PARLIAMENT OF THE WORLD'S RELIGIONS



Hugh Locke is Co-founder and President of the Smallholder Farmers Alliance in Haiti, and President of the US-based Impact Farming Foundation.