



CLIMATE CHANGE CHANGES EVERYTHING FOR EVERYONE WORKING TOGETHER, WE CAN CHART A NEW COURSE

THIS ISSUE:

- Drought defence in Nicaragua
- Solutions to the Climate Crisis
- Renewable Energy in Alberta

CLIMATE CHANGE CHANGES EVERYTHING

In the wake of the People's Climate March held in New York City on a September weekend that saw almost three-thousand events held in 162 countries, people are talking about climate change. That was, of course, the point. To send a message that people around the globe are standing together, united, for climate justice. To get people talking. And though the conversation briefly came to a halt during two minutes of silence for those most affected by climate change, the conversation must continue; it must be loud; **and it must be followed by action**.

The debate is over about whether or not climate change is real. The impacts of climate change are global and the evidence is irrefutable: Extreme weather, rising sea levels, massive crop failures, record temperatures, retreating glaciers, extinction of species.

Climate change is not an 'if' or a 'when', but is instead a 'what now?'.

And while industrialized countries are the biggest sources of greenhouse gases, the world's poorest populations – those with the greatest dependence on natural resources, who are the most vulnerable to extremes, and with the least capacity to satisfy basic needs of food, water, healthcare, and shelter – are the first to suffer from climate change and unpredictable food and water supplies.

Droughts and floods mean crop failure. Unpredictable weather means traditional farming knowledge is less relevant. Impacted food systems mean an increase in the number of people going hungry in the world. Climate Change is the biggest risk to international development today.

Change for Children has championed human dignity, healthy communities, and global justice with the passionate support of Canadians for over 35 years.





Change for Children supports projects with local partners that build resilience, help communities to adapt to their changing environment and encourage collective action to strengthen societies in the face of change. Because standing still and standing alone is not an option.

The example is being set for the global community.

It is not too late to have a significant impact on the future of climate change. It will take everyone doing their part; it may take the small actions of many to manifest big change; it may take the big actions of a few to manifest small change; **but**, it will take all of us working together.

The climate change conversation must continue; it must be loud; and it must be followed by action. I urge you to join the conversation. Because climate change changes everything. For everyone.

Sincerely, Walke

Lorraine Swift *Executive Director, Change for Children.*

Change for Children's Mission is to build civil society capacity in the global south and in Canada to promote health, human rights and create solutions to poverty through sustainable development.

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Registered Charitable Organization No. 11884 9496 RR0001

In developing countries, cultural traditions often make women responsible for securing a family's water, food, and fuel for cooking, making women even more vulnerable to the effects of climate change. But, their role in households and communities and their role as stewards of natural resources, also means that women are well-positioned to be agents of change and leaders in adapting to environmental realities.

AGENTS OF CHANGE



In the mountains of Totogalpa, Nicaragua, the sun beats down mercilessly. We visit the three-acre renewable energy centre operated, maintained, and proudly owned by Las Mujeres Solares de Totogalpa (The Solar Women of Totogalpa).

The group of women officially became a cooperative in 2010, and with knowledge they gained through a University of Managua initiative to reintegrate land mine survivors into society by building photo-voltaic modules and as a way to get energy in an off-the-grid region, the women have created a sustainable enterprise.

Solar panels are mounted above the well shack, methane gas is collected through a system of pipes at the outhouse, 'charcoal' briquettes made from agricultural waste are stacked at the ready, and the smell of roasting coffee permeates from a solar cooker. We enjoy a meal prepared solely using renewable energy at the roadside restaurant, La Casita Solar (The little solar house), before taking a tour of the grounds. The small photo-voltaic workshop where solar panels, battery chargers, cookers, and dehydrators are fabricated is occupied today by University students from North America learning about solar technology.

The cooperative is proud to share their knowledge and their successes. They have made energy accessible in their own community, and members travel the country teaching others how to do the same. Change for Children is proud to support this climate-sensitive economic development project by buying solar stoves from the cooperative for distribution as part of the Nicaragua Water Project. The Solar Women of Totogalpa are truly agents of change.

"Global warming is one of the leading causes and greatest contributors to world hunger, malnutrition, exposure to disease, and declining access to water." – UN WomenWatch



DROUGHT DEFENCE

As artisan wells dry up and water becomes scarce during Nicaragua's worst drought in decades, the local water committee made up of empowered women in La Esperanza – a community who received a solar well in 2012 through Change for Children's Nicaragua Water Project – is determined to make it count for many. Their water supply, a well drilled deep into a healthy aquifer, is still going strong.

Deep wells drilled during the dry season have kept water accessible to communities in northwest Nicaragua. The 78 water systems installed by Change for Children are part of drought-defense in areas where climate change has made seasons unpredictable and unyielding.



CLIMATE CHANGE MITIGATION: Reducing greenhouse gas emissions from human activities

CLIMATE CHANGE ADAPTATION: Reducing vulnerability and building resilience



"Solutions to the current crisis have to emerge from organized social actors that are developing modes of production, trade, and consumption based on justice, solidarity, and healthy communities." The use of eco-stoves by the Miskito and Mayagna indigenous people in Nicaragua's Bosawas biosphere reserve burn more efficiently and release less smoke into the atmosphere than traditional open fires, thereby reducing greenhouse gas emissions and deforestation.

As part of the Eco Stoves project, Maria has learned to prepare new recipes on her new stove that promote a diversified diet. Over 250 families in the Bosowas will be cooking on eco-stoves by this time next year.



The Family Garden Project in Comitancillo, Guatemala relies on committed local project promoters that travel from their communities to a central demonstration farm to learn new agriculture techniques in response to changing weather conditions and to learn the benefits of organic farming.

Thanks to the dedicated promoter in Chamaque, Idalia and her family are better equipped to earn an income by working their own land. "If there is a the world at all, i climate-change confer with tall buildings. It ground, with its arms arou battle every day to pro mountains and their riv that the forests, the the rivers pro

- Arund

Local women's federations are working together in support of local food in Alto Beni, Bolivia by supplying locally produced organic breakfasts to 3,500 students. Growing, processing, and promoting local food for local consumption reduces emissions from food transport, a major source of greenhouse gas emissions worldwide, and takes agriculture back from being an energy consumer to an energy producer.

Through their involvement in the *Better Nutrition*, *Better Learning* project, women are achieving improved income security and helping to tackle the high rate of malnutrition and hunger in their communities.





iny hope for t does not live in ence rooms or in cities lives low down on the und the people who go to tect their forests, their vers because they know he mountains and otect them." The Nicaragua Water Project takes advantage of Nicaragua's abundant sunshine by harnessing solar energy to pump water from drilled wells in communities that do not have electricity. The use of renewable energy sources is a key climate change mitigation strategy.

The community of La Consulta was the first to receive a solar-powered pump in 2009. For Inez and the community of Parque Central, a new solar pump brought clean water and a healthier community within reach just this year.

Instead of using fertilizers and pesticides, small farmers in the Guatemala highlands use indigenous plants and drought-resistant native seeds to help protect natural resources like fertile soil and water, while improving the nutrients in crops.

Seed banks, part of the Guatemala Food Security project, help to protect the supply of native seeds, ensuring they are available to small farmers like Angel when seed supplies are depleted during increasingly frequent food shortages caused by drought.



Temperatures in the Kigezi region of southwestern Uganda are higher than they were thirty years ago, resulting in soil erosion, loss of vegetation, food shortages, and increased incidence of malaria. With the opening of a maternal and child health hospital this year comes increased disease prevention education. A new agriculture initiative, introducing agroforestry and establishing kitchen gardens in communities, will create more sustainable land use systems.



"Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has."

- Margaret Meade



Monthly giving is an affordable way to make a meaningful contribution. Sign up for automated monthly donation at www.changeforchildren. org or by calling 780-448-1505.

RENEWABLE ENERGY IN ALBERTA

A Windy Alternative

Alberta's current electricity system is based primarily on burning coal, and the province is considered to have the dirtiest electricity grid in the country. However, the energy landscape in Alberta is changing. Alberta now has the highest percentage of installed wind generation capacity of any province in Canada. With more than 40 wind projects proposed or under development in Alberta, the province has the ability to become a renewable energy leader.



The foothills of southern Alberta are home to one of Canada's most productive wind energy regions.

AN IMBALANCE OF EMISSIONS

Those who contribute the least greenhouse gases will be the most impacted by climate change.

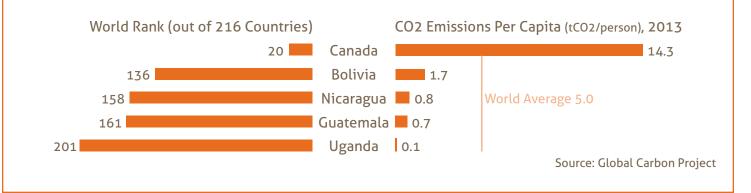


Countries are sized to show their annual CO₂ emissions from fossil fuel use and cement production (2013). *Source: theguardian.com*

Globally, 1.4 billion people live on less than \$1.25 per day. These people have limited resources to cope with extreme weather conditions, relocating due to rising sea levels, andpurchasing food at higher costs due to flooding and drought caused by climate change.



A WORLD OF DIFFERENCE





Solar systems in schools in Nicaragua store solar energy in batteries that power lights, thereby extending productive classroom hours.

LOOKING UP

Alberta has one of the highest solar energy potentials in North America. By turning our gaze toward the sun, we can reduce our dependence on fossil fuels. Kyle Kasawski, Solar Specialist in Edmonton, Alberta shares how residents can harness the energy of the sun.

Why solar?

Solar is a beautiful technology and makes a lot of sense to be used in all applications. All our energy has come from the sun in one way or another - coal, natural gas, oil, biofuel – all come from photosynthesis. Hydro and wind also are possible because of the sun. Solar power goes right to the source. No emissions. Clean. It makes good common sense. I love the technology.

Where can solar panels be installed?

Every roof surface is an opportunity. Solar panels are a non-discriminatory, passive technology. They just want to face the sun!

How does a roof solar panel installation work?

Solar power systems are designed to be an alternative to the grid – to complement the grid. The power system is wired right into the electrical panel of your house. It uses the power you need and feeds anything extra into the grid, making you not just a power consumer, but a power producer. The aim is to be power positive.

What is a net-zero home?

Net-zero homes produce all their energy on site. Rather than burning fossil fuels at a distant power plant and transmitting energy over long lines, power is produced where it is being used.

In Alberta, 1,000 homes currently have solar power, and, according to Kyle, the movement is gaining momentum as Albertans embrace clean, alternative energy. It only stands to reason given that Alberta receives over 2,300 hours of sunshine per year – the most in Canada! "If Alberta were a country, its per capita greenhouse gas emissions would be higher than any other country in the world."

– Pembina Institute

Home to the third largest crude oil reserve in the world, Alberta currently leads the country in climate pollution. Producing oilsands crude creates significantly more CO2 than conventional oil and gas drilling and uses far more energy and water. Oilsands are the fastest growing source of greenhouse gas emissions in Canada. **Say Yes to alternative** energy.



Acting on climate change is everyone's responsibility. Let's all do our part.

- Green your commute
- Be energy efficient
- Trim your waste
- Get informed and involved
- Use water efficiently
- Compost
- Eat local
- Generate your own renewable
 power
- Reduce, reuse, recyle
- Spread the word Tell five people today how they can reduce their carbon footprint!



September 26, 2015

You are invited to our Open House on Friday, December 5th, 2014. Come celebrate with us! (10808-124 Street, 2nd Floor)

Stay connected with the latest news, events, opportunities and project updates by signing up for CFCA's Enewsletter.

www.changeforchildren.org

Thank you volunteers, donors, partners, fundraisers, advocates, friends and tireless supporters. Your local support means global change. You are the spirit of Change for Children.

CLIMATE CHANGE CHANGES EVERYTHING

Canada and Bolivia are vastly dissimilar in size, population, and CO2 emissions. However, they have each seen increased flood activity in recent years. In February, Canadians traveling with our dental brigade experienced extreme weather on the ground in Rurrenabaque, Bolivia. Heavy rains brought twice the normal amount of rainfall causing floods and landslides, and the indigenous communities we partner with were cut off by floodwaters and washed out roads. **See inside to find out how Climate Change Changes Everything for Everyone.** Locally and Globally.

Interested in a school presentation, program, or activity? Contact us for learning resources for your child, classroom, or school.



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GIFTS THAT CHANGE THE WORLD

Giving one of Change for Children's Gifts that Change the World is a meaningful way to contribute to solutions that alleviate global poverty. This holiday season, consider gifts that provide clean water, tools, seeds and training, or

access to education and healthcare where it is most needed. Personalize the card of your choice with your own message and *change someone's world* this holiday season. Visit www.changeforchildren.org or call 780-448-1505 to order your gift cards.





CFCA gratefully acknowledges the financial support of:

Foreign Affairs, Trade and Development Canada

Government of Alberta Culture and Community Spirit

