

Taken By Storm Talk
March 2015 St Alban's Stroud Methodist

Intro

A warming world is not a vague threat in the distant future, it is a present reality.
Beyond 2 degrees > climate chaos Not just a few storms, bit more wind.
those who have done least to contribute to it; and there is a deep injustice in this.
The already vulnerable suffer most, least able to adapt, 'poor' gender, disability, age or ethnicity
Further inaction amounts to a betrayal

Let some of our partners speak to you. Their voices, worries, hopes.

Page 1 Philippines "We Refuse to Accept"

Typhoon Haiyan The city of Tacloban, 200,000, largely destroyed.
US Marine Brigadier: 'I don't believe there is a single structure that is not destroyed or severely damaged in some way – every single building, every single house.'
Buklod Tao, one of our partners through the Centre for Disaster Preparedness, works with people living along the river, alerting them to impending floods and helping them evacuate.
Manuel Abinales, founder and president of Buklod Tao, says:
'The rains are getting worse, it's getting unpredictable.'
Radar, website, stream gauge, mobile phones, communicate when rain in Antipolo mountains, coming their way soon.
Using scientific weather data, communities are better able to forecast when the river will flood.

Page 2 Yeb Sano, Philippines delegate to UN climate summit, Nov 13, when typhoon Haiyan struck, fasted

'We can take drastic action now to ensure that we prevent a future where super typhoons are a way of life. Because we refuse, as a nation, to accept a future where super typhoons like Haiyan become a fact of life. We refuse to accept that running away from storms, evacuating our families, suffering the devastation and misery, having to count our dead, become a way of life. We simply refuse to.'

Page 3 Kenya "Information is Power"

1 degree increase since 1960, probable 2 degree increase by 2060.
V hard to predict, Longer dry season with no rain, , dry river beds, but more rain when it does come on parched land, and floods.

People who live off the land - ways of life threatened:

Small farmers – maize and sorghum wheat harder soil, wilted crops
Pastoralists – goats and cattle not good enough pasture

Not many tvs, not many papers, but many mobile phones,

Most forecasts for cities, not accurate for rural areas.

CA project with Christian Community Services Mount Kenya East (CCSMKE)

UK software company Frontline SMS create the software programs.

Kenyan Meteorological Department to provide accurate tailored weather info. Early warnings.

Page 4 In recent years, as the rainfall in their area of Kenya has reduced, Lilian and Albert Nthiga have found it difficult to grow enough food. Without information to help them assess when to plant to make the best use of the available water, they sometimes waste large quantities of seeds. Our

partner Christian Community Services Mount Kenya East helps farmers get access to and interpret weather forecasts so they can increase their yields even in dry times.

Scheme called Sustainable Agricultural Livelihood Initiative (SALI)

If less rain predicted, delay planting. Daily forecasts, plan the day, if not going to rain, water crops.

Awareness – water-harvesting, what best variety of crops to grow.

Messages to 3000 farmers. Information is Power. Having to practise climate - smart devt.

Truphema Ireri, 'The hope of tomorrow – today may be bad, but there is tomorrow to live, so that helps us to keep on struggling.'

Page 5 Brazil

Collective Land Title to stop Logging

Quilombola community, descendants of slaves brought to Brazil from Africa escaped and hid in the depths of the rainforest, wh practise sustainable subsistence agriculture

And Guarani tribes live sustainably off the land.

Threat of big dam projects, mining and logging.

If local people have land title better chance of fighting them off.

The destruction of forests worldwide is responsible for up to a fifth of the world's greenhouse gas emissions, more than every car, truck, ship and train on the planet combined.

Erratic and extreme weather forest fires

severe drought followed by intense rainfall > flood that engulfed 1000s of homes.

Page 6 Carlo Printes

'In the past people could read nature's signs and then knew when it was going to rain, when it would be sunny, what the water levels would be. People knew what the weather would be so they had some control,' he says. Now things happen with no warning, people can't read the weather anymore, they're lost. It's all very confusing. Now, when people go to hunt or collect fruit they have to go further and further afield.'

where collective land titles are held by indigenous or quilombola communities, deforestation stands at about 1%, as opposed to 20% in the rest of the Amazon.

Even when they do hold land rights, mining and timber corporations, dam-building projects and a general lack of power continue to threaten forest-living communities

CPI helps disenfranchised communities to acquire land rights

'It was because we held the collective title to our lands that we were able to say no and stop the timber company coming here and cutting down our trees. It enables us to protect the forest. We are very happy that we do not have logging today. We know that once we've got the land title the problems continue – the loggers, the miners, the dam construction projects. But the land title enables us to have a stronger defence against these things.'

Page 7 Bolivia

Since the 1970s, the glaciers of the tropical Andes have reduced by 30 to 50%.

millions of people rely on the glaciers as their main source of drinking water.

In La Paz and its suburb El Alto, more than 2 million people get 1/3 of drinking water from glaciers.

World's highest ski resort closed.

Need water for drinking, sanitation and crops. Conflict because there is not enough.

Erratic rainfall, snow melts, higher temperatures, landslips, bridges destroyed, > Bolivia faces the perverse problem of both too little and too much water.

Page 8 Alivio Aruquipa

'Climate change is a reality here. We can see the impacts everywhere. There are new insects on our crops because of higher temperatures here. We can't produce now without spraying the crops. There are new crops we can grow here now – potatoes, peas, cocoa, peach; before we could never grow those. But the insects that come with the higher temperatures eat the crops. If we don't use insecticide we don't get a harvest. It's expensive: sometimes we work hard to grow a crop and we only earn enough to pay for the insecticide.'

New conditions cos hotter higher up mountains.

New crops can be grown cos hotter - potatoes, peas, cocoa, peach; but insects come too.

So need insecticides, expensive.

New illnesses in cows and so new vaccines needed often and these expensive and imported. So need to sell an animal to pay to vaccinate the rest. (Someone wins!)

conflict over water is rife and migration is common.

Carmen Crispe Demarca

'Lots of people have left the community. There's no one left, just us, we just have our houses, our plots of land. But that's why my children have gone, we don't have water here. There's no way even to make a living, so people have left and gone far away. That's why they have gone and I live here by myself. You suffer when you live alone.'

'Often people never come back, people move to the Yungas region if they can, or to the city where they do manual labour, and the young people go to Argentina or Brazil and they never come back.'

Page 9 CA Partner Agua Sustentable, helped to build a reservoir serving up to 40 families - build infrastructure to adapt to cc

Agua Sustentable studies the glacier to gain understanding of rate of ice melt, likely supply of water, new farming techniques that preserve water, and crop types that can flourish

Martin Vilela of Agua Sustentable says:

'short-term adaptation is only a temporary fix and that the long-term solution will only be found when the global community addresses root causes of climate change, and takes decisive steps to reduce emissions.'

Page 10 Bangladesh

1/3 of its land is coastal zone, inhabited by 35.1 million people.

Groundwater salinized up to 100km inland.

Higher sea levels > greater damage from tropical storm surges, eg Cyclone Aila in 2009, making 1 million people displaced

Selina Begum: *'Climate change is causing many changes. Previously I used to cultivate rice, now this is becoming really difficult. People are beginning to cultivate fish because water in this area is becoming so salty. It is too expensive to cultivate rice like we used to. Climate change is affecting this. Sometimes the water is so salty that even the fish are dying. This salty water is harmful to our environment and to the rice fields.'*

Selina received training from CA partner **Shushilan** in human rights, gender equality and leadership, vegetable gardening and veterinary practice. Helped save lives after cyclone.

Selina has become a community organiser and was given veterinary training by Shushilan as well as saline-resistant rice seeds, which she plans to use to raise enough money to establish a veterinary clinic. Migration to Dhaka and cities, cc refugees,

'I will always stay here and will adapt to changes. This is my own land, this is my locality, I don't want to move from my home.'

Page 11 Mofazzal Kagzi and his son Lutfur work together to farm fish in Bangladesh. They have had to adapt to cope with cyclones and salinated water.

Another vicious circle water salinized > Rice less economic > people turn to shrimp farming 1,000 hectares up to 100,000 hectares > with sea level rise increased salinization boundary > caused loss of more mangrove swamps that are a barrier against cyclones and storm surges/ From bad to worse!

According to the World Bank, at current predicted rates of loss of Sundarbans mangrove forest

- In 25 years, 10cm sea level rise > flooding of 15% of forest, lose 2,500km² of land.
- In 60 years 25cm rise will flood 40% of forest, putting 6,300km² under sea level.
- An 88cm rise will inundate the coastal zone completely

Page 12 Christian Commission for Development in Bangladesh – helps set people up with floating gardens, vital for the rainy season. Made of bamboo and hyacinth, can grow chillis, cabbages and okra to eat and sell.

Roban Biswas – *‘Before CCDB’s support I reared local ducks, but they do not lay many eggs. Local ducks are getting diseases because of the salty water, and they die. They are not resilient to this. But now I have received training, and a different breed of duck. It is a Campbell duck, they lay more eggs and they have been vaccinated so they are less affected.’*

Page 13 El Salvador

Central America – responsible for 0.5% of gg emissions but extremely vulnerable.

No rain and then 3 months rainfall in one day.

Hard to plant cos of risk of floods when rain does come.

Mangrove forests are a crucial buffer against rising seas and storm surges, as well as vital breeding grounds for fish. Same as Bangladesh!

Mauricio Cruz is the leader of one of the local ADESCOs, a group of 10 communities who work together in the event of an emergency.

‘Big countries are responsible for climate change, more than countries like El Salvador. I know that it is impossible for us to do anything here if countries that are responsible for emissions don’t do anything. They need to change their way of life, but we’re trying too, because we understand the impact of climate change.’

Extreme weather events

- From 1960s to 1980s only 1
- in 1990s there were 4.
- between 2005 and 2012 there were 8

Our partner **Acudesbal** helps communities to

- develop early warning systems ahead of weather events
- advises on more effective agricultural techniques.
- Built village emergency shelters.
- Construct better drainage systems to withstand floods
- Plant new crops like malanga
- Grow new rice varieties resistant to flood and drought

Page 14 Effect of CC on Dev World Communities

- Smallholder farmers find they can no longer effectively predict rainfall patterns using traditional methods, so their farming methods are rendered useless.
- Small business owners see livelihoods destroyed by hurricanes, storm surges and floods.
- Children have education disrupted when schools have to be used as emergency refuges.

- Stronger storm surges, heavier rain
- water shortages conflict over water
- migration
- food insecurity
- damage to infrastructure
- decrease economic growth
- lose development gains made over the years
- governments lose legitimacy, threaten regional stability

Specific Effects - Asia

54% live in low-lying areas - Dhaka, Bangkok, Ho Chi Minh City, Jakarta, Kolkata, Shanghai, Manila

Coastal areas and small island states suffer from flooding, storm surges

Widespread migration and economic loss. Human lives.

Water shortages, monsoon changes, more intense cyclones,

Marine life threatened by warmer and more acidic oceans, hitting the livelihoods of fishing communities.

Specific Effects - Latin America

Melting glaciers in the Andes will reduce long-term water availability, including Bolivia and Peru.

Across Latin America, food production will suffer and people in many areas will have to face more extreme flooding and stronger weather events such as hurricanes.

Specific Effects - Africa

drought, crop productivity, food insecurity, water-borne diseases like malaria.

Threaten livelihoods of pastoralists and farmers

Page 15 Common Themes

- ❖ Climate generated conflict over resources Iraq – villages over water, Ethiopian pastoralists pushing into Maasai territory to feed cattle, Bolivia – water rights,
- ❖ Weather extremes, suffer both ways, Too little water, then too much, drought and flood
- ❖ Unpredictability of weather, more than 'shall I put the washing out', plant now or flood tomorrow and all washed away? Can land sustain cattle? Storm coming temporary refuge? one member of family migrate? all go to city?
- ❖ Initial effect and then unexpected knock-on effects, but predictable if thought about it. Malaria, migration, disease, social conflict, desperation, govts lose legitimacy, cos seen to be failing, political instability ... opens door to extremism and movements that feed off hopelessness and despair boko haran.
- ❖ Tell me if being over-simplistic, but imho it seems someone is profiting, there are human enemy forces who don't want the problem to end, have vested interest in denying the problem, gain financially from the situation, benefit from it, loggers in Amazon, oil companies in Nigeria, private water companies in Bolivia, companies that sell vaccines to Alivio for his cows, landowners whose land increases in price as land more precious
- ❖ Solutions exist. Good responses. In many places these will be swept away, if cc continues. Developmental progress undermined, swamped by warming planet.

Page 16 Conclusion

Big Scale Solutions - Conclusions for Global Action

1. A long-term solution to climate change must be found by tackling its root cause and getting a global deal to reduce carbon-dioxide emissions.
2. For real progress we need fundamental changes > an end to the use of fossil fuels
3. A transformation in the consumption patterns of wealthier people and countries.
4. switching to more climate-resilient crops and working increasingly with climate scientists to provide farmers with early warning of changes in the weather
5. a transformation in how we do business and in our economic aims
6. the technologies we use, ensuring that they are all prepared for the future

Not just first aid – need to cut out root cause.

those on the front line facing the impacts of climate change are unanimous with the climate science experts: the world must act decisively and urgently to reduce emissions, manage resources and protect the vulnerable. In this way, and only this way, will we have the chance for a future that is sustainable and fair for the poorest people in the world.