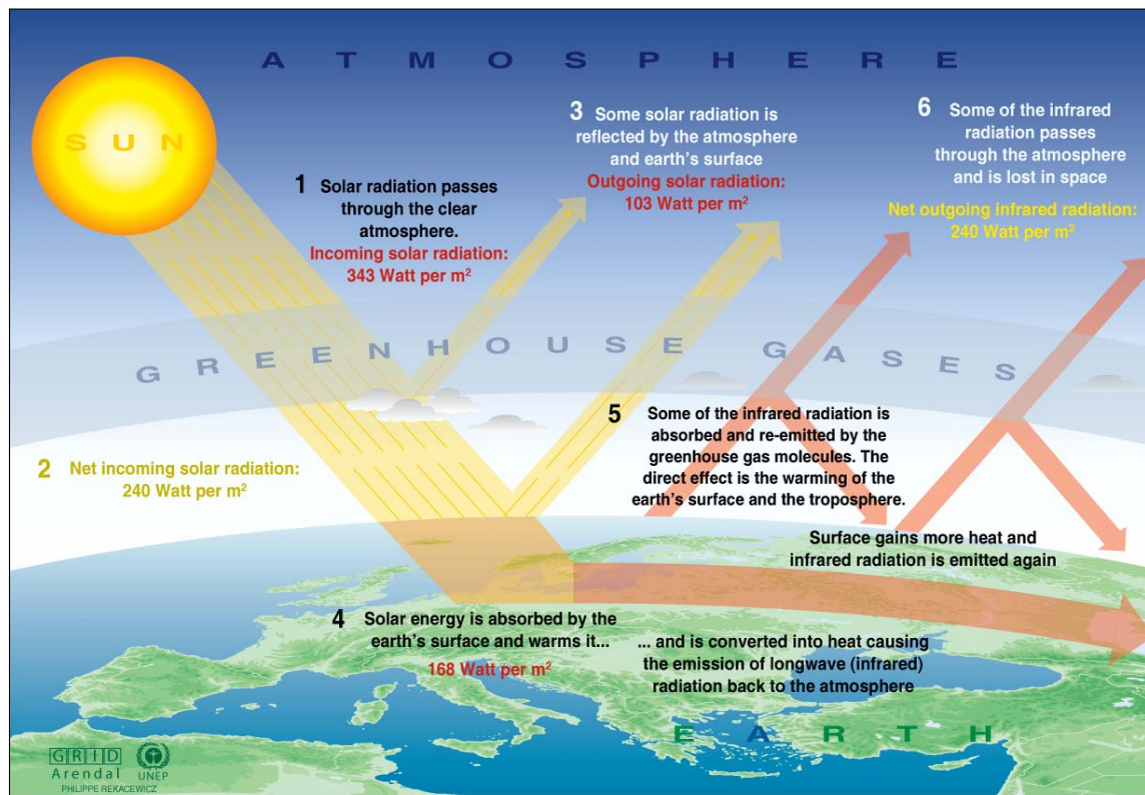


Introduce self, background and briefly discuss Mercy Corps

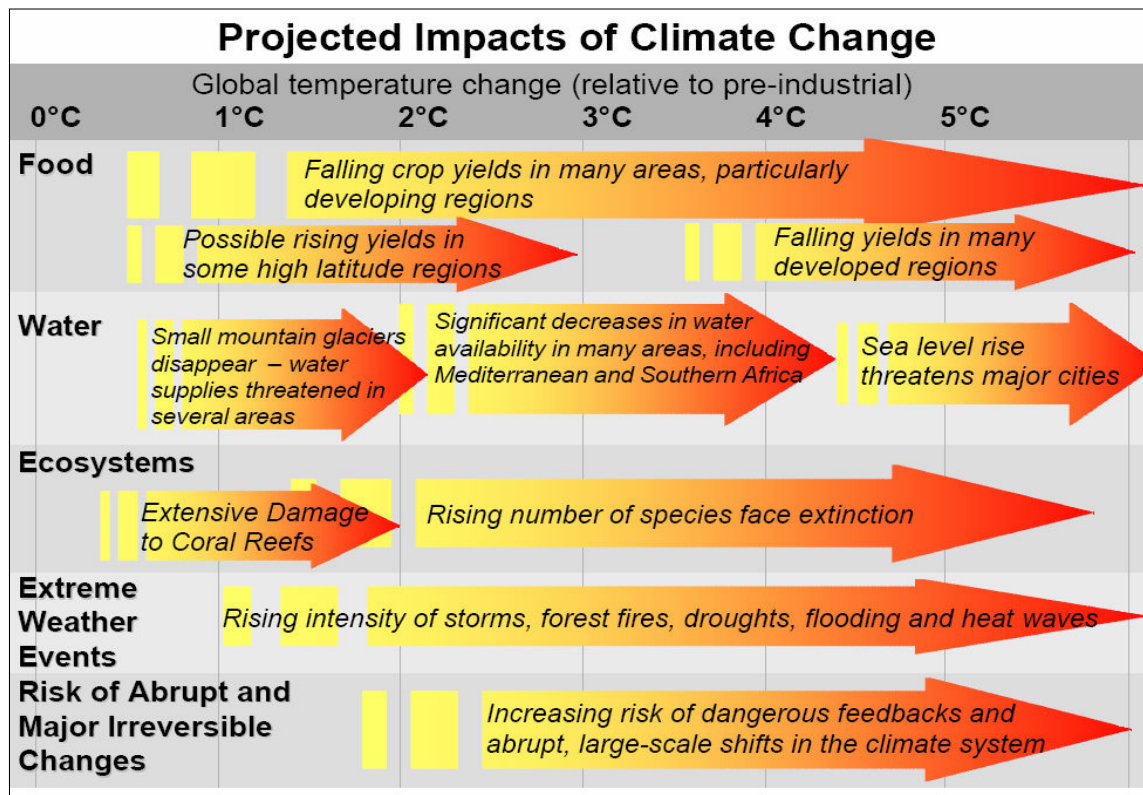
What I hope to convey today is the severity of climate change threat and that our approach to thinking about it needs us to radically alter the way we conceptualize major problems. Problems, like war, famine, financial recessions and depressions tend to be relatively short; less than 10 years and often less than five. That's how we think – 5 year election cycles, 5 year plans. But thinking about climate is different. We need to think about action now to forestall impacts we'll otherwise make in the next 20 years, that in turn can drastically affect our planet in the final half of this century and the next. For many in this room, this isn't about you; it's about your children, grandchildren and their kids in turn.



Let's quickly review what climate change is. Under normal circumstances, sun light hits the Earth – a proportion is by the ground absorbed and keeps us warm, while another portion bounces off both the ground and the atmosphere, back into space. Now add greenhouse gases like CO<sub>2</sub>. These catch some of the reflective radiation, and send it back into the atmosphere and ground. The result is our planet's surface is warmed further – global warming, that affects the climate.

There are different theories from different climate models about how fast the planet is warming, but all agree it is. The discussion is over where climate events will strike and how fast things will get worse. The Earth has warmed by about 0.7C since the industrial revolution. And if we stopped all greenhouse gas emissions now, the earth would still warm by another 2C over the next couple of centuries. It doesn't sound like much, but...

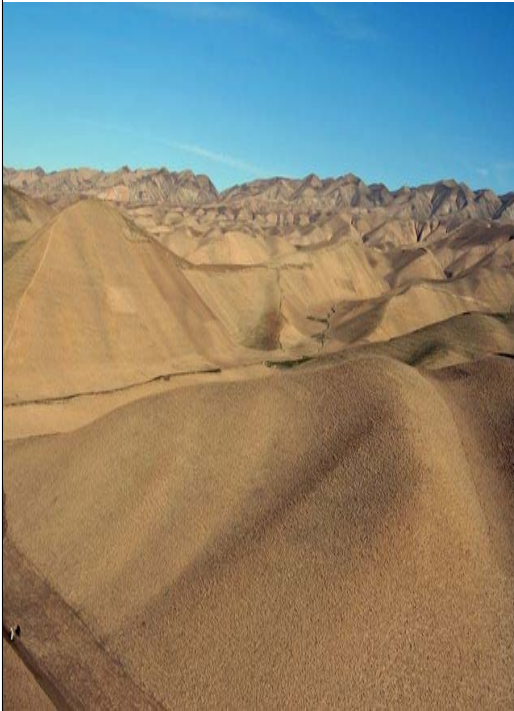
GHGs are needed for life, like red wine. But too much and... **George Plantagenet, Duke of Clarence (21 October 1449 – 18 February 1478)** was the third son of Richard Plantagenet, 3rd Duke of York, and Cecily Neville, and the brother of kings Edward IV and Richard III. He played an important role in the dynastic struggle known as the Wars of the Roses. He is also remembered as the character in William Shakespeare's play *Richard III* who was drowned in a vat of Malmsey wine.



#### TALK ABOUT SLIDE

- We can survive in a 70oC variation in temp (poles to deserts) but the life supporting ecosystems are adapted, can't, and can't move
- Impacts on developing world
- Impacts of global security
- Knock on effects for northern world

## Climate and Mercy Corps



Climate change threatens:

- Past development legacy
- Current programming
- Community stability



Mercy Corps works in countries that are often fragile/unstable and prone to conflict. The impact of climate change will leave them more vulnerable and exacerbate trigger points for violence nationally and internationally. A DRR response is imperative.

Program 2 yrs old etc.



## Climate Change – a force multiplier



### Overlapping challenges:

1. Youth
2. Migration
3. Urbanization
4. Fragile States
5. Resource conflict

The impacts of climate change are, and will increasingly be, related to forces that already threaten many parts of the world. Three major ones are the youth bulge, fragile economies and resource conflict.

The youth bulge: of the 1,1-billion youth aged 15 – 24, 1/3<sup>rd</sup> are unemployed or have a job bringing less than \$2. This already causes volatility in sub-Saharan Africa, South-East Asia and the Middle East and North Africa. Aside from being an appalling waste of human capital, unemployed and restive youth can become the foot soldiers of conflict in civil, national and regional conflicts. Climate change forcing migration and disrupting agriculture and hence food security, will compound this problem.

Migration – link to other themes and 200,00,000 expected

Urbanization – most of humanity is for the first time in urban settings. The are plus sides to this, access to services, for example. But migration to the cities in many parts of the world concentrates people around insufficient or crumbling infrastructure, slums – both legal and illegal. Now consider that most of these cities are close to the coast. Rising sea levels will cause massive displacement from many developing world coastal cities and add further burden to the problems already encountered in many more

Fragile states are those where governments cannot, or will not help their

## Parallel responses



1. Mitigation

2. Adaptation

....economic  
opportunity



### Programs:

MITIGATION means addressing the root causes of climate change – reducing carbon emissions or capturing carbon via tree planting and other ‘sequestration’ methods.

ADAPTATION means helping communities be prepared for effects of climate change that are going to happen no matter what action is taken to prevent global warming.

ADAPTATION and MITIGATION responses can generate jobs and economic opportunity.

### Examples:

1.DISASTER RISK REDUCTION: Includes activities like reducing flood risk during severe storms; adapting to increased likelihood of crop failures; preparing for increasingly erratic water access as well mainstream ones including emergency and evacuation planning and first aid training.

2.ECONOMIC DEVELOPMENT OPPORTUNITIES: Including switching to cleaner and cheaper energies at different scales – clean emissions from factories; generating entrepreneurial opportunities for communities; recycling waste and creating income-opportunities at the same time



## Jakarta

*Adaptation*

Urban DRR

## Timor Leste

*Mitigation*

Energy Poverty



Reflect on how the Jakarta example mixes the climate change, DRR and urban elements. Goma mixes carbon funding for DRR related to conflict impact.

## Jakarta – Urban Poverty Reduction program



### Current hazards:

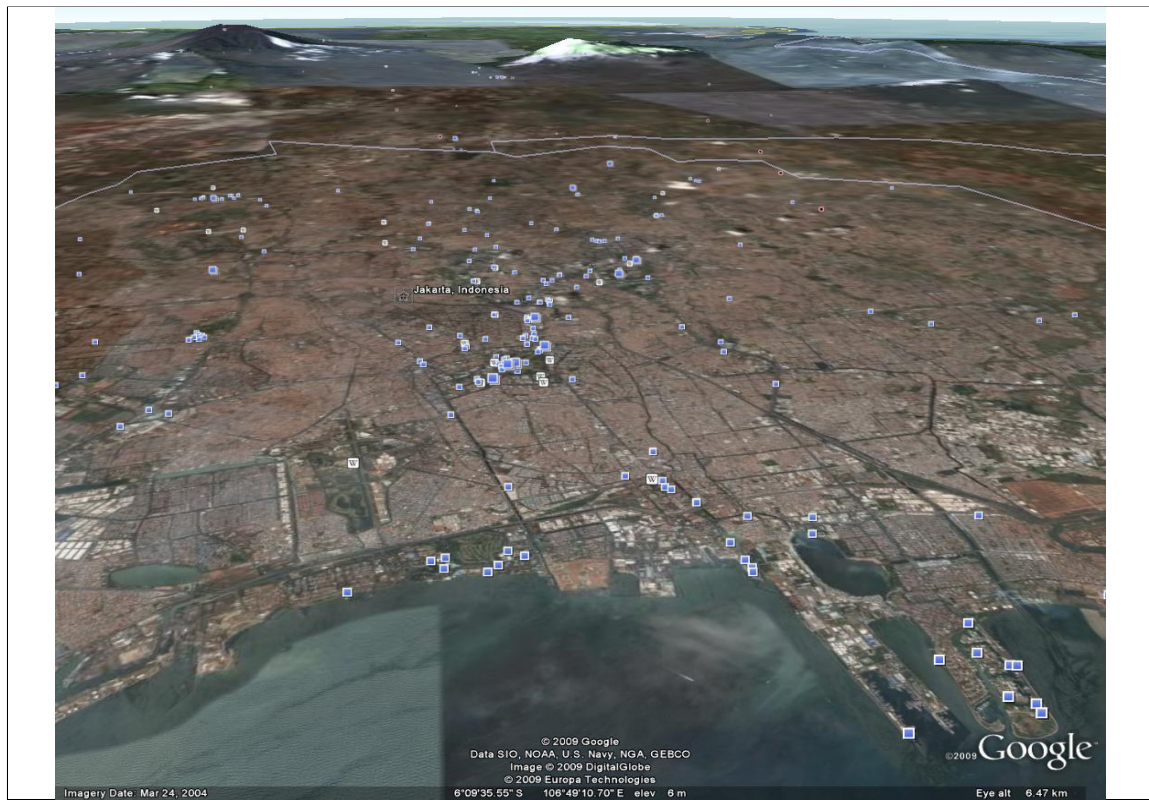
- Severe flooding
- Subsidence
- Poor infrastructure
- Insecurity
- Poverty

Impacts are already severe. In the floods of 2007 much of Jakarta was inundated; > 50 died and > 340,000 residents were displaced and forced into temporary shelters. When the waters receded, the population was confronted by soaked and ruined household goods, properties damaged and mud covered. The risk of diseases including cholera and typhoid increased. Clean water, in short supply at the best of times, was ever more restricted. These direct impacts were compounded by creaking, collapsing infrastructure; power supplies and telecommunications were off in many areas long after the flood waters had cleared. Historically and currently flooding events are blamed on the urban poor including extra-legal residents squatting along riverbanks. Ironically, these include most of the scavengers currently working in informal waste sector who serve to clean the city.

Relative sea level rise of 40 – 60 cm by 2025

Fresh water table inundated by salt water to 15 km inland and standards





## Timor Leste: Energy needs

- Lighting
  - Cooking
- 
- Current practice impact - *Environmental degradation, loss of income and education*



•The two greatest reported energy needs for communities in Timor Leste are for lighting and cooking. Kerosene and candles are currently the principal sources of lighting, but these are not enough. Kerosene supplies are often limited and prices are both volatile and high. A lack of light is widely perceived as a handicap as communities identified a series of income generating activities that are restricted because of a lack of power. These include: sewing and repairing of fishing nets, handicraft production, and cooking snacks for sale. But equally as important are other activities such as school study, community meetings and general household lighting, which are also limited by lack of energy. There is a gender aspect here too: as one informant stated, most household activities are the responsibility of women and children – a lack of lighting impacts them the most.

•Cooking is an essential household activity and in Timor Leste currently depends almost entirely on fuel wood collection with dramatic costs in terms of cash and time.

•ENVIRONMENTAL IMPACTThe average consumption of fuel wood for one household is roughly 60 kg. If purchased, this costs roughly US\$ 3, an option used by only 10% of urban villages as it constitutes three times the daily earning for many villagers. Others have to forage, which is time consuming and has significant impacts for families. Households have to collect 3 - 4 times weekly and must travel distances of over 2 – 3 km. Time spent varies from 8 – 15 hours per week. The burden for fuel collection falls upon the whole family, diverting time from income generation and education. For example, children collect on weekends, in the afternoon after returning from school and on holidays, diverting time from study. This adds to the impact of not being able to study at night when light is not available.

## Timor Leste: Moving forward

Integrated approach combining:

- Business models
- Standards
- Job creation
- Community mobilization
- Capacity development



## Response directions for discussion

1. Capacity development to embed broader geographic and timeline “climate thinking”
2. Long term, integrated, programming
3. Mandate climate-risk assessments
4. Harness market forces
5. Catalyze sustainable mitigation and adaption solutions

