

The Greenhouse Effect

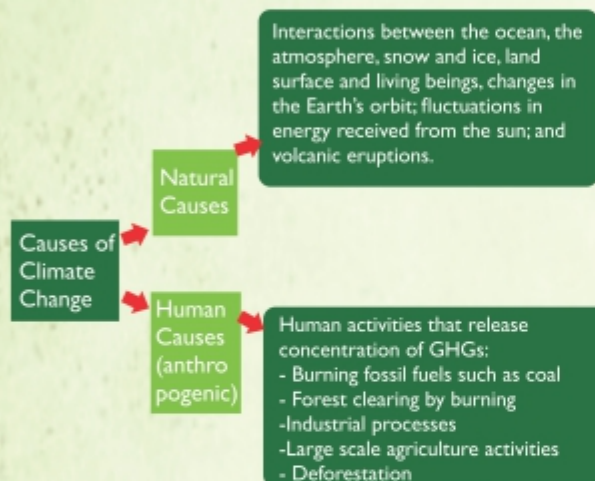
This is the natural process of the atmosphere letting in some of the light we receive from the sun (ultraviolet and visible light) and stopping it being transmitted back out into space (infrared radiation or heat). This makes the Earth warm enough for life.

However, carbon dioxide and other *greenhouse* gases act like a blanket, absorbing infrared radiation and preventing it from escaping into outer space. This net effect is the gradual heating of Earth's atmosphere and surface, a process known as global warming.

Human activities have disturbed the stable levels of greenhouse gases over the years and this has now caused the climate to change.

2. What are the causes of climate change?

Climate change is caused by a combination of human activities and natural causes. However, literature proves that human activities have been the major cause of climate change.



3. Effects of Climate Change

Climate change has an effect on the environment, the people, the economy, production and employment.

3.1 Effects on Environment

- Natural resources depletion;
- Reduction of flora and fauna (biodiversity);
- Reduced ecosystem production;
- Reduced fresh water supplies;
- Increased barren land and reduced pastures for livestock.

3.2 Effects on People



- Food insecurity;
- Deterioration of incomes and livelihoods dependant on natural resources;
- Degradation of water supplies for human consumption, agriculture and other uses;
- Increased water-borne diseases due to floods and extremely hot temperatures;
- Increased conflicts over natural resources;
- Destruction of infrastructure such as roads, bridges, houses, service delivery infrastructure (schools and hospitals) due to floods and cyclones;
- Displacements / eviction of people and their livestock due to extreme weather events;
- Climate change- induced migration.

3.3 Effects on the Economy and Production

Climate change impacts negatively on critical economic sectors such as agriculture and fishery, energy, tourism and wildlife, education and health. These sectors are referred to as "climate-sensitive sectors". For instance, Zimbabwe's economy is heavily reliant on revenues from agricultural exports. Once the agriculture sector is negatively affected, it means:



- Government revenue sources will decline and this will result in a decline in the provision of social services.
- Production and revenue from agriculture-linked sectors such as manufacturing will decline.

In addition, water shortages caused by erratic rainfall can hamper production of hydro-energy critical for industrial productivity.

3.4 Effects on Employment

The effects on employment vary from sector to sector with the most affected being climate or weather-sensitive sectors such as agriculture, energy and tourism. According to the International Labour Organisation (ILO), the impact of climate change on employment is realised in four main ways. Due to climate change:

- Certain jobs will be lost without direct replacements e.g. banned products which have high carbon emissions;
- Additional jobs will be created e.g. through renewable energy deployment (solar, bio-



energy, mini-hydro energy), greener products, services, and infrastructure;



- Some jobs will be substituted e.g. shifting from fossil fuel (coal) to renewable energy, truck-based transportation to rail, from internal combustion engine manufacturing to electric vehicle production, or from landfilling to recycling and refurbishing; and,
- Some jobs will be transformed and redefined e.g. information technology (IT) workers, electricians, plumbers, metal workers, and construction workers practices as, skills sets, job profiles, workplaces and work methods will be greened.

4. Effects of Climate Change on the Decent Work Agenda (DWA)

For many years, trade unions have been fighting for the achievement of decent work and the fulfilment of the DWA. Unfortunately, climate change is now threatening attainment of the four pillars of the DWA namely; employment creation, workers' rights, social protection and social dialogue.

A job can be only considered decent if it meets the conditions of decent work as stipulated by the ILO Conventions such as adequate wages, safe working conditions, job security, reasonable career prospects, protecting worker's rights and social dialogue

Impact on Employment Creation – loss of employment especially in climate-sensitive sectors, lower incomes, climate change-related labour migration and brain drain, increased informal economy activities, rise in child labour, the need to acquire new skills, rise in precarious work, increase in the working poor.

Impact on Workers' Rights – income insecurity, job insecurity and increased occupational safety and health risks especially for workers who work outdoors who can be exposed to extreme temperatures.

Impact on Social Protection – loss of social service infrastructure (houses, roads, bridges, schools e.t.c). These damages will require the government to increase its budget allocation towards climate-change-social protection.

Impact on Social Dialogue - rise in industrial conflicts as workers loose jobs, rise in social unrest, increased worker insecurity due to increased precarious work, violation of trade union rights, decline in unionisation due to company closure, loss of trade union strength affecting sustainability of trade unions.

5. Why climate change is a trade union priority?

5.1 Climate Change and Green Jobs

Climate change presents an opportunity for employment creation in the renewable energy sector (solar, bio-energy, mini-hydro, wind and geothermal energy).

Thus, governments are encouraged to embark on green economy initiatives and creation of green jobs.

Green jobs are jobs that:

- Improve energy and raw materials efficiency.
- Limit GHG emissions.
- Minimise waste and pollution.
- Protect and restore ecosystems.
- Support adaptation to the effects of climate change.

5.2 Climate Change and Just Transition

Just transition is the process of maximising benefits of climate action whilst at the same time minimising hardships for workers and their communities.

Just transition therefore means providing:

- Alternative jobs for workers laid off during the green transition process;
- Decent work conditions in the newly created renewable energy sectors;
- Social plans which include adequate benefits and social security for workers laid off during the green transition process;
- Reskilling - education and training programmes for workers who want to change to green jobs.

The International Trade Union Confederation (ITUC) is calling for a just transition to low carbon economies through investment in new green jobs, skills, income protection and other necessary measures implemented, with adequate funding for the poorest and most vulnerable of nations.

6. Trade Union Action on Climate Change

There are several actions that trade unions can take in order to deal with the negative economic and social impacts of climate change. Trade union actions include:

i. Research and Analysis on:

- Climate change impact (evidence based research).
- Sectoral strategies for promotion of green and decent jobs and green workplaces.

ii. Advocacy and Engagement - Workers to Demand:

- Policy coherence on climate change and green economy. It is now widely recognised that if the right policies are in place, a transition to greener economies has potential to yield positive economic, social and environmental outcomes, acting as a strong driver for job creation, social justice and poverty eradication.
- Transparency and accountability of climate change funds (both local and international funds) for green economy programmes and green and decent jobs.
- That workers' rights and social dialogue be at the heart of government's climate change response.
- Promotion of a just transition towards a low-carbon society by government and the business community.
- Enforcement of environmental legislation by government institutions, among others.

iii. Training, education and skills development on:

- Climate change and renewable energy opportunities.
- Climate change and just transition.
- Greening the workplace.
- Integrating climate change and green jobs issues in collective bargaining and DecentWork Country Programmes.



iv. **Organising and recruitment of workers** in emerging renewable energy sectors (solar, bio-energy, mini-hydro, wind and geothermal.)

v. Campaigns and awareness-raising on:

- Promotion of a green economy.
- Promotion of green workplaces and green and decent jobs. According to the ILO, decent work and just transition must be at the heart of climate action.

vi. **Alliance building** with CSOs and NGOs working on climate change and promotion of a green economy.

vii. **Effective participation in international processes on climate change** such as the Conference of Parties (COPs) that are organised annually under the United Nations Framework Convention on Climate Change (UNFCCC). COPs provides opportunities for trade unions to demand recognition of the rights and interests of workers in all UNFCCC's discussions and documents.

The struggle for climate justice is a struggle for workers' rights and social justice!!

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Further information can be obtained from the Ministry of Environment Water and Climate, Ministry of Energy, Environmental Management Authority (EMA), the Civil Protection Unit and the Meteorological Centre.

CLIMATE CHANGE AND GREEN JOBS

A Trade Union Priority



I. What is Climate Change?

Climate change is the large-scale, long-term shift in the planet's weather patterns. A substantial rise in greenhouse gases (GHGs) such as carbon dioxide, methane, nitrous oxide and other fluorocarbons (industrial gasses) causes a rise in global average temperatures (global warming) through the greenhouse effect. This continued global warming affects the planet's weather patterns thus resulting in climate change.

Globally, climate changes that are occurring include extreme temperatures, cyclones, changing rainfall patterns, sea level rise and ocean acidification. In Zimbabwe, climate change has been evidenced by the re-occurrence of droughts and floods, cyclones, erratic rainfall patterns (causing changes in agricultural seasons) and extreme hot and cold temperatures.