

Climate Change: Are we doing enough to avert a crisis?

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Climate change overview

What the world is experiencing is clearly pointing to undesirable climatic changes with potential catastrophic consequences. This is evident from rising environmental temperatures associated with longer and deeper droughts¹, declining water resources^{2,4} in spite of increased overall rate of groundwater recharge in cold climates⁵, predictable declining crop yields⁶⁻⁷ and complex variable crop responses^{7,9}. These changes are due to a complex phenomenon with diverse and widespread effects; global climate change.

Is the world taking heed to these signs of an impending crisis?

While it is acknowledged by all that these changes are occurring due to human activities, and that there is need to take counter measures as evident from pronouncements made under a United Nations Convention¹⁰, one can question the effectiveness of man's response to the phenomenon. Indeed the Convention initiated a necessary global process, but perhaps a process too slow to deal with the problem effective enough to prevent a crisis. It may be acknowledged that since 1992, there has been considerable global debate on the subject, resulting in achievements on protocol¹¹, a road map¹²⁻¹³, re-commitment to action¹⁴ and vital agreements¹⁵ for implementation of global action. What is worrying is the lack of evidence of concerted action to address the problem. From what we have experienced over the years, the implementation of resolutions has been problematic; nations finding themselves in a dilemma trying to balance national developmental needs with global needs for a sustainable environment. Media reports from the 2011 Durban Conference gave the world some hope though, reporting a sustained process of dialogue, and some positive outcomes among which were the extension of the Kyoto Protocol, the launch of a USD 100 billion Green Climate Fund, launch of a Climate Technology Center and Network effective 2012, and a decision by Parties to adopt a universal legal agreement on climate change no later than 2015, to come into effect in 2020.

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Need to do more

Time cannot wait though, the undesirable effects of climate change continue to impact negatively on human populations, prompting man to react as a way of alleviating immediate pain and suffering. Among the reactions is the adoption of measures considered as "coping strategies"¹⁶. There is potential danger with this kind of response to the phenomenon in that dealing with immediate pain and suffering might lead to the adoption of measures that might not, or not adequately consider long term implications. Indeed, the measures themselves, while giving immediate/temporary relief may contribute to the acceleration of climate change.

Findings of the study on Climate Variability Impact on Livelihood Strategies Among Pastoralists in Southern Zambia underscores the problem. It was found that livelihood adaptable practices for the pastoralists included engaging in non agricultural activities. Harvesting of products from the forest were the most prominent non-agricultural livelihood strategies accounting for the highest value of 50.13%. Given this situation, it was felt that increased climate variability would lead to increased pressure on the forests, consequently leading to de-forestation. It was rightly concluded that farmers should be encouraged to engage in sustainable adaptable livelihood strategies, that the harvesting of forest products should be coupled with planting of trees to avoid depletion of the forest and further environmental degradation.

To deal with the phenomenon effectively however, a comprehensive approach must be taken that takes into account the contributing factors to climate change and underlying causes, the effects of climate change, and human reactions to the effects. Howden et al recognize the integrative nature of climate change and suggest mainstreaming climate change into policies covering a range of scales, responsibilities and issues to facilitate the development of comprehensive, dynamic and long lasting policy solutions¹⁷.

Will poor nations manage to cope with the desired effort?

It will take a significant amount of resources (human, material, financial and technology) to achieve effective solutions. Underdeveloped nations that face resource limitations must take advantage of provisions under international arrangements in addressing issues of climate change. Zambia is a signatory to, and has ratified the United Nations Convention on Climate Change, and Kyoto Protocol. Efforts must therefore be made to take full advantage of provisions under such facilities as the

Clean Development Mechanism (CDM), the Green Climate Fund, and Climate Technology Center and Network.

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