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COMMENT



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## FLOOD MANAGEMENT TO PROTECT LIVES AND PROPERTY

IT IS natural for we humans to hate droughts, because these natural disasters bring with them hardships, including poverty, diseases and the destruction of fauna and flora.

During droughts the economy is negatively affected as agricultural production is brought to its knees and industries grind to a halt.

Food security for people and animals is threatened, while natural vegetation dies.

Crops and animals die in large numbers during droughts while unfamiliar diseases crop up and thrive.

A study published last week revealed that the Covid-19 pandemic could have its genesis in climate change.

I must hasten to point out that this study has not yet been peer reviewed.

However, in the same vein, the human species also loathes floods because too much surface water causes destruction of properties and deaths of humans and animals.

It's for this reason that the Department of Human Settlement, Water and Sanitation has a component specifically responsible for flood management governance to assess the likelihood of flooding incidents every year ahead of the high-flow season in order to develop and implement measures to mitigate the adverse effects.

The incidence of above-average rainfall for our country is forecast to continue until autumn.

Needless to say, nature's discrimination cannot be overemphasised.

While other provinces were complaining of too much rain, several areas of the central Eastern Cape province are still in the grip of a devastating drought.

Last week Gift of the Givers, a non-government organisation, had to come to the aide of the Adelaide area, which is suffering from water shortages, to drill six boreholes so communities could have water!

Measures for preventing flood damage can be structural and non-structural. Structural methods aim to control flooding by reducing or channelling its destructive power away from human developments by terracing hillsides to slow flow downhill; constructing flood-ways to divert floodwater; and building levees, lakes, dams, reservoirs, wetlands and ponds to retain extra water during times of flooding.

Non-structural techniques are based on the knowledge that flooding is a natural phenomenon that cannot be completely controlled.

The Department of Human Settlement, Water and Sanitation adopted a hybrid approach to flood management, consisting of a combination of structural and non-structural methods to manage floods.

Some existing water infrastructure, such as Vaal Dam, have gated spillways and built-in flood retention capacity.

This combination makes it possible to attenuate or to capture peak flood volumes or to pre-emptively release reservoirs rapidly.

Effective flood control using these structures is achievable only through early flood peak detection, prediction and warning.

The main objectives of flood management are to ensure safety of human lives, to minimise the damage to properties, and to ensure that dams are 100% full.

The National Water Act mandates Minister Lindiwe Sisulu to ensure that water is protected, conserved, well managed, and controlled in a sustainable and equitable manner.

This includes managing of floods and droughts, including the potential risk these disasters pose to the public.

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