THEARTOFRESEARCH



Warning! Flooding imminent!

Technology can protect lives and infrastructure from flood damage.

Morwapula Mashalane is a remote sensing scientist at the South African National Space Agency. Born and raised in rural Limpopo in the area called Ga-Maleboho, Morwapula is a young scientist who is passionate about science and believes science is the key to development and the eradication of poverty.

Satellite data for early warning can

predict areas most at risk of flooding.



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ach year, during periods of heavy rainfall, various areas across South Africa experience flash floods. Areas such as the Alexandra and Mamelodi townships in Johannesburg, as well as Tshwane, Centurion and parts of Durban, have experienced flash flooding. These flood events have been known to leave hundreds of people homeless and a road infrastructure that is destroyed. Sadly, a number of lives

The South African National Space

may also be lost.

Agency has developed an early warning tool to highlight areas in South Africa that are most at risk of flooding, should water levels rise to five metres above the riverbed. This tool assists in the identification of houses, human settlements, hospitals, schools, roads and other infrastructure which is at risk of being flooded should there be excessively heavy rainfall.

"Government decision makers and municipal authorities could mitigate the socio-economic loss and the loss of life emanating from flood disasters by using this flood risk tool in their localised planning," says Morwapula Mashalane.

The tool enables town planners and developers to identify flood-risk-free zones for property development, and could encourage those already located in flood risk zones to institute flood mitigation and management plans. This tool could save the lives and money of the citizens of the country.





