GREENVALE PARK FLOODING 2018

TRINIDAD

Group 12

Description and Impact

- Between the period of Tuesday 16th October 2018 and Sunday 21st October 2018, an Adverse Weather Alert issued by the Trinidad and Tobago Meteorological Office (TTMS) predicted heavy rainfall and thunderstorms resulting from the presence of the Inter-Tropical Convergent Zone (ITCZ).
- This adverse weather alert resulted in a plethora of negative impacts nationwide, particularly flooding events. It was estimated that approximately eighty percent (80%) of the island of Trinidad experienced floods, with one of the most prominent areas to be impacted being the community of Greenvale.
- This flooding event would have been described by many as devastating, as the intermittent rainfall resulted in majority of the houses within the Greenvale community being partially submerged.

Impacts

- Severe damage to homes and local businesses
- Flooded roads and utilities disruption
- Persons were left stranded and displaced
- Closure of schools
- Mental stress and trauma
- Damage to ecosystems and the environment

Contributing Factors to the Hazard

- Political Influence and Strategic Misrepresentation

Political stakeholders frequently limit technical designs, resulting in an over-commitment to project completion despite predictable failures. This results in inefficiencies and cost overruns due to partisan policies and strategic misrepresentation of project feasibility (buildings-11-00198).

- Urban Development

Greenvale's unplanned and rapid urbanisation, combined with inadequate drainage systems, exacerbated flooding.

- Improper Waste Disposal

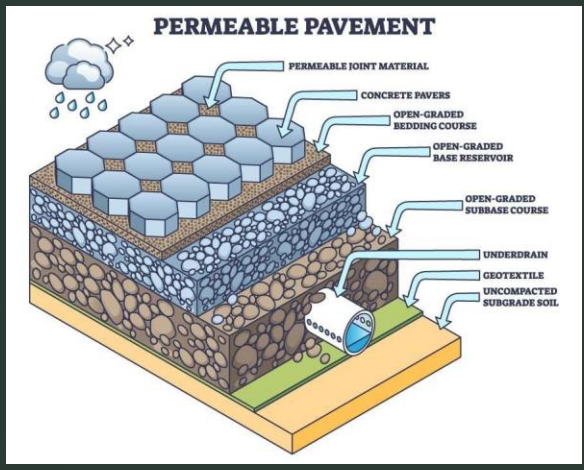
Improper waste disposal, such as dumping or littering, blocks water flow, leading to flooding in Trinidad and Tobago, making it the most preventable cause of flooding

- Poor Land Use Practices.

Over-cultivation, and over-grazing reduces the viability of the soil for vegetative growth. This leads to a result similar to deforestation, where the volume of water the soils can absorb and retain is reduced, and the surface runoff is increased.

Solutions

- Implement watershed management practices to reduce run off, improve water retention and promote sustainable land practices to reduce erosion and increase groundwater recharge (Korah & Cobbinah 2017).
- With urban development comes the change in the structure of the land. Improper post construction drainage contributes to flooding. As such, innovative designs such as the permeable pavements allows water to filter through the soil and into a water storage base which reduces the overall amount of water runoff that causes flooding (Qin, 2020).
- Drains that flow into large water holdings should include waste catching nets. These nets trap debris and garbage that can inhibit the flow of water, thereby preventing flooding.



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Chicago 17th referencing style

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