A Synopsis of the 2021 Flood Event in Guyana

Group 3

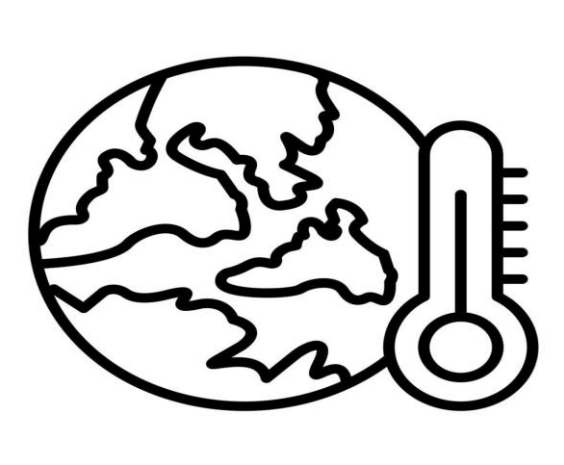
Description of Hazard event and Impacts

In mid-May 2021, Guyana experienced unusually heavy rainfall leading to severe flooding across the country.

Impacts:

- ❑ Destruction of homes and farmlands
- ❑ Contamination of water sources
- ❑ Disruption of transportation and economic activities
- ❑ Population Displacement
- ❑ Increased exposure of human settlements to potentially harmful wildlife

Factors Contributing to Impacts



Natural Factors

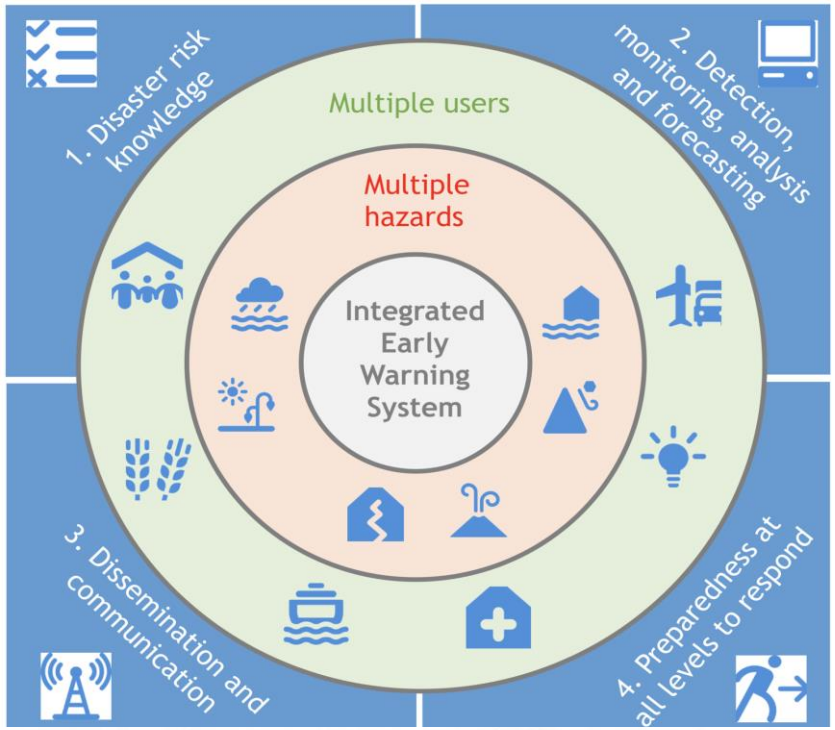
- **Topography** - Guyana's low-lying coastal plain,which is below sea level in some areas,makes it highly susceptible to flooding.The geography of the region allows for rapid accumulation of water during heavy rainfall.

- **Climate Change** - Global climate change has led to more frequent and intense weather events,including heavy rainfall. Rising temperatures and changing weather patterns can contribute to extreme rainfall events.

Anthropogenic Factors

- **Deforestation and Land use Changes -** Human activities such as deforestation and changes in land use, including urbanization and agricultural expansion, reduces the land's natural ability to absorb and manage water. This increases runoff and the likelihood of flooding.

- **Inadequate Infrastructure -** Poorly maintained infrastructure, such as drainage systems and flood defenses, significantly contributes to flooding. Lack of investment in resilient infrastructure and proper maintenance of systems hinder effective water management.



Solutions to Reduce Future Impacts

- Development & Implementation of a Multi-hazard Early Warning System
- Integrated & Sustainable Urban Planning
- Improvement of flood management/prevention mechanisms for e.g. drainage and flood retention systems.