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IBM develops software to manage disaster

Chennai, April 1.: IT major IBM's scientists in India and New York have created specialised math algorithms to help manage natural disasters, including wild fires, floods and diseases. The math scientists of IBM Research Labs had worked with business experts from the company's Global Business Services and clients to develop the 'stochastic optimisation model'.

The model would arm government bodies, relief agencies and companies with tools for strategic planning to effectively allocate resources for natural disaster management and mitigation. The math equations would help speed up and simplify complex tasks in everyday life such as determining the fastest route to deliver packages, detecting fraud in health insurance claims, automating complex risk decisions for international financial institutions and scheduling supply chain, a company statement said on Tuesday.

"The challenge lies in matching high-end mathematical program-

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ming technologies with high-impact business and societal problems, while using open platforms and standards. Our researchers have worked on innovative optimisation solutions designed to create a roadmap for a responsive disaster risk reduction," said Dr Daniel Dias, director, IBM India Research Laboratory, New Delhi.

The government agencies use different systems to estimate their programme needs, including preparedness and resource planning, yet no one system has been able to adapt to the increasing complexity of natural disaster management, the statement said.

These challenges forced IBM to develop a large-scale strategic budgeting framework for managing natural disaster events, with a focus on better preparedness for future uncertain disaster scenarios. A fully developed and customised model can significantly help the country's approach towards disaster risk reduction

and disaster management.

We are creating a set of intellectual properties and software assets that can be employed to gauge and improve levels of preparedness to tackle unforeseen natural disasters," said Dr Gyana Parija, senior researcher and optimization expert at IBM India Research Laboratory.

"Most real-world problems involve uncertainty, and this has been the inspiration for us to tackle challenges in natural disaster management," Dr Gyana Parija said.