



SAARC
SAARC Disaster
Management Centre (IU)

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Contribute

Interested in getting involved and
sharing your stories to SDMC(IU).
Contact SDMC Team at
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Director's Message



Dear Readers,

The COVID-19 pandemic has posed unprecedented challenges throughout the world. SAARC Member States are making commendable efforts to reduce the impact of COVID-19 and severe threats posed by other natural hazards occurring simultaneously.

Taking up the action points discussed during Video Conference of SAARC Leaders for Combating COVID-19, SDMC(IU) has developed a dedicated web-portal for sharing of updates and practices being followed by the Member States.

In addition to this, to facilitate experience sharing on emergent risks like locust attack posed by extreme weather events, compound disaster conditions created by Cyclone Amphan, Uttarakhand floods, multi-sectoral recovery from COVID-19, use of space-based technologies, etc., SDMC(IU) has conducted webinars on the pertinent topics for the region.

Now, the vaccination phase is initiated in most of the countries, and Member States are benefitted through '*Vaccine Maitri*' initiative. This edition aims to showcase some of the interesting initiatives for DRR & combating COVID-19.

Looking forward for the suggestions/ inputs/ feedback on the same.

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SDMC (IU) conducts webinar on Enhancing Preparedness for Responding to COVID19 and Extreme Weather Events

SDMC (IU) has organized a webinar with an aim to highlight lessons learned from the past flood events and challenges faced due to COVID-19 pandemic during major cyclone response. It was deliberated that the main focus needs to be placed on enhancing community preparedness through local level action plans for climate related hazards and risk management to build more resilient systems that are better placed to prevent such crises in the future.

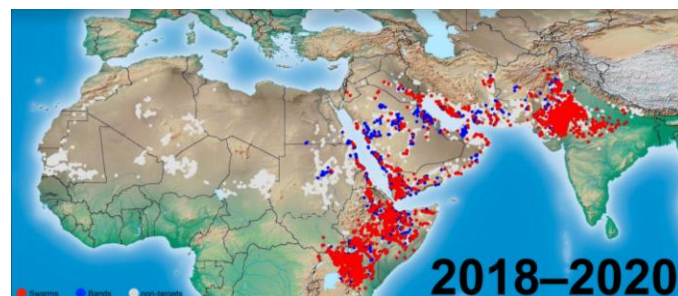
While focusing on the Climate Change and the Extreme Weather Events in the SAARC Region, the expert from IITM, India explained the sea level rise in the South Asian region which is happening at the rate of 3-6 cm per decade. The impacts have been clearly seen on the islands in the Indian Ocean like that of Vaan Island in Gulf of Mannar and on the biodiversity as well like the extinction of Bramble Cay Melomy, the first species to be extinct due to anthropogenic climate change.



Submerging island & extinction of biodiversity due to climate change (Presentation by Dr. Roxy Mathew Koll, IITM)

A relatively new subject that emerged as a potential risk in the very year of pandemic was the Locust Attack in the region. The expert from FAO explained about the characteristics of desert locust and factors to mitigate the locust plague. In SAARC region, they are mainly found in dry areas of India and Pakistan. Rarely they can reach to countries like Nepal and Afghanistan. In general, they are in desert, in low numbers, not posing a threat. But increasing temperatures, unusual rainfall events, and changing wind patterns leads to more rapid maturation,

more frequent outbreaks, and new invasion areas. They have huge impact on food security and livelihood not just on farmers community but on countries and regions.



Imprint of Locust swarms & bands on World Map (Presentation by Dr. Keith Cressman, FAO)

Experts from India and Bangladesh, shared their experience of major cyclone of 2020, Cyclone Amphan, local level response and challenges caused by COVID-19 situation. The expert from Bangladesh highlighted that it was quite impractical to apply COVID19 precautions during the emergency response phase of Amphan and during sessions of flood because saving of lives was precedence over the risk of contracting the disease. The expert from India highlighted that community involvement, coordination- both at macro and micro level, homogeneity between central, state and local agencies, and India's preparedness and EWS contained the loss of lives to just double digits.

In the discussion on strategy for development of Local Level Action Plan, the expert from ADPC interestingly highlighted the transition from global to local level since 2015 through implementation of international frameworks and defined local level anything which is below National level. COVID-19 pandemic is a timely reminder of how hazards within the complex and changing global risk landscape can affect lives, livelihoods and health. An all- hazards approach is must to achieve risk reduction as a basis for sustainable development.

A total of 91 participants attended the webinar from all SAARC Member States.

SDMC (IU) conducts workshop on Multi Sectoral Recovery Approaches to Post-COVID19 and the 'New Normal'

SDMC(IU) has organized a webinar in collaboration with UNDP to highlight the challenges faced by different countries and sectors during COVID-19 and discuss multisectoral and resilient recovery approaches to the post-COVID-19, and beyond.

A panel discussion was held on experience of COVID-19 needs and recovery assessments. COVID19 has added to the existing historical risks in Asia and the Pacific. In 2019, this region witnessed relentless sequence of disasters. The underlying risk drivers have been poverty, gender inequality, marginalization, social-economic & political exclusion, climate change, rapid & unplanned urbanization, unsustainable use of natural resources, etc. COVID 19 with this platform of risk drivers has made nature of risk quite systemic. Expert from UNDP listed ten lessons learnt from the pandemic and highlighted recommendations for COVID19 socio-economic recovery which include international & regional cooperation, governance, social protection, green economy, digital disruption and innovation, and funding to reduce multiple risks. A feasibility study done by UNDP Bangladesh on Universal Basic Income for COVID 19 recovery was presented.

For recovery from health perspective, expert from WHO talked about WHO regional priorities related to health emergency and disaster risk management which includes:

- “Scaling up capacity developments in emergency risk management” – one of the eight regional flagship priorities in South-East Asia Region since 2014
- “Delhi Declaration on Emergency Preparedness”, 2019 with four main focus areas: Identify, Invest, Implement, Interlink
- “Member States’ declaration for collective response to COVID19”, 2020

Effect of COVID19 on environment sector and promoting green recovery was discussed by expert from UNEP. To prevent future pandemics, better management of environmental resources and biodiversity is required.

With huge number of people affected by the virus, health waste management has been of concern. The waste produced is not only from the patients but also the healthcare workers which includes PPEs. It is estimated that waste of 1kg-3kg is produced per patient per day, overwhelming the existing waste management system.

Some other measures of recovery as presented by Member States includes:

Ensure food security
Economic package
 Bubble and Domestic Tourism
Investment in manufacturing sector
 Public infrastructure development
 Risk Mapping ensure liquidity in market
Cash Incentives
 Communication

A total of 42 participants attended the webinar from all SAARC Member States.



Webinar as conducted from SDMC(IU)

SDMC (IU) conducts workshop on Enhancing Preparedness for Climate Related Disasters Using Space-Based Technologies

SDMC (IU) and the United Nations Office for Outer Space Affairs (UNOOSA), through the UN-SPIDER, organized two programs in 2018 and 2019 for the countries in South Asia. These programs focused on using space-based information for monitoring of Sendai framework and it also explored specific topics such as multi-hazard disaster risk assessment.

In continuation to this, a third webinar on using space-based technologies for climate related disasters was organized in collaboration with UN-SPIDER, IWMI, and CSSTEAP. The workshop aimed at supporting efforts of the countries in the region to make effective utilization of space-based information for providing early warning and risk information, which also contributes to achieve targets of the Sendai Framework.

An expert from IMD delivered session on application of space-based system in severe weather monitoring and early warning. There has been advancement in obtaining satellite data- from 1960s when data was obtained from NOAA and now countries have their own satellites with range of receiving data in minutes.

Expert from IWMI presented on earth observation data for risk analysis. Disaster risk continuum is an iterative approach wherein DRM is a continuous process over time and the frameworks can't exist in different compartments of preparedness, response, recovery, etc. With the help of satellite-based observation, hazards can be identified, levels of exposure and vulnerability can be assessed to take timely decisions. With this sustainable climate investment can be promoted and infrastructure can be planned in better way to reduce risk in the future.

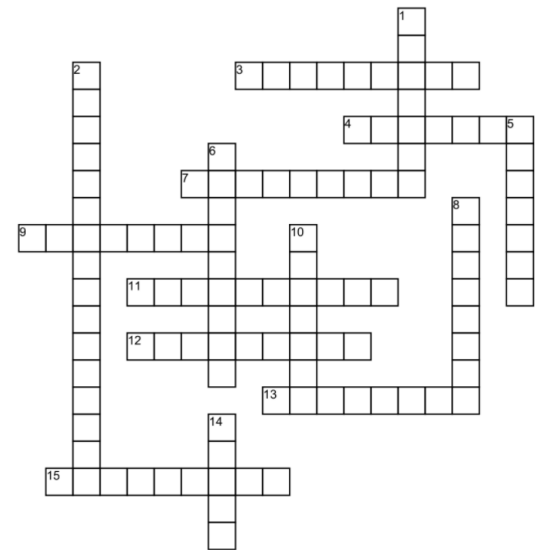
Post declaration of global frameworks, trends in satellite data availability from different sensors is becoming freely available to public, showing potential it has. Expert from IIRS presented on earth observation data for emergency response and scenario building with a case study of the recent Uttarakhand flood – Rishi Ganga Valley flash fool, Chamoli, India.



*Analysis of the origin of Uttarakhand Flood
(Presented by Mr. C.M. Bhatt, IIRS)*

He explained about the 'international charter' which has 61 contributing satellite, continuously providing data in different resolutions, to respond in a faster manner.

Participants were engaged in an interactive session of puzzle solving.



Across

3. When snow falls off a cliff in multiple turns
4. When there has not been any rain for a long time
7. When the land starts to sink into the ground
9. A cold storm normally in the coldest parts in the world
11. A disaster that shakes the Earth
12. A storm in shape of a spiral that is similar to a cyclone
13. A fire that gets out of control and hurts anything it touches
15. A storm similar to a blizzard but more snow is involved

Down

1. A whirling storm caused by the wind
2. When a volcano erupts
5. A storm that takes you and spins you around
6. A storm that normally happens in the desert
8. A fire that happens in nature areas
10. A huge wave caused by an ocean-floor earthquake
14. When there is heavy rainfall and it gets out of control

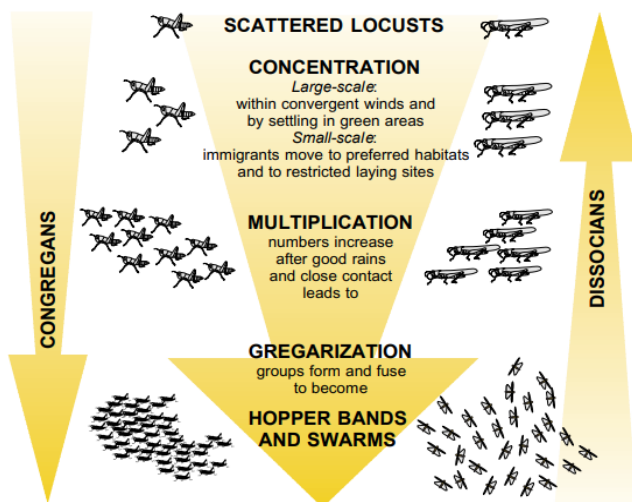
A total of 63 participants attended the webinar from all SAARC Member States.

Emergent Risk of Desert Locust



A desert locust (Schistocerca gregaria)

Desert locust is the most feared of all migratory pests found in regions between West Africa and India- covering nearly two dozen countries extending across northern Africa, the Middle East, and southwestern Asia. Its presence in Egypt has been documented during Pharaonic times some 5,000 years ago, and is mentioned in both the Bible and the Koran. The Locust plague have the capacity to threaten agriculture and food security.



Phase terminology

<i>Solitarious</i>	Phase when individuals live mostly separate from each other.
<i>Gregarious</i>	Phase when large numbers of individuals gather together.
<i>Transiens</i>	Intermediate phase when locusts are grouping and starting to act as a single mass and are either changing from solitarious to gregarious (gregarization) or from gregarious to solitarious (dissociation).
<i>Congregans</i>	Part of the transiens phase during which locusts are congregating and are in transition from the solitarious to the gregarious phase. Often used for nymphs.
<i>Dissocians</i>	Part of the transiens phase during which locusts are in transition from the gregarious to the solitarious phase. Often used for nymphs.
<i>Solitaricolour</i>	Showing types of colour associated with solitarious behaviour.
<i>Gregaricolour</i>	Showing types of colour associated with gregarious behaviour.

Adult locusts can form **swarms** which may contain thousands of millions of individuals and which behave as

a unit. The non-flying nymphal or hopper stage can form **bands**. A band is a cohesive mass of hoppers that persists and moves as a unit. Desert Locust **plagues** occur after a series of events in which locust numbers increase. This starts with the normally calm period of **recession**, followed by localized **outbreaks** and **upsurges** from which a plague may develop and eventually decline, returning to a recession period.

The behaviour of the Desert Locust is directly influenced by meteorological parameters, such as rainfall, temperature and winds arising from convergence, monsoons, position of storms and depressions and the fluctuations in the position of seasonal convergence zones such as the Inter-Tropical Convergence Zone (ITCZ) and Red Sea Convergence Zone. The recent global outbreak happened in 2020. According to FAO, the swarms represented the worst infestation in 25 years in Ethiopia and Somalia, in 26 years in India, and the worst in 70 years in Kenya. The crisis has affected 23 countries from Pakistan to Tanzania.

Climate change is a key driver of the recent outbreak. Swarms of desert locusts have been recorded in the region for centuries, but unusual weather conditions generated strong cyclones and heavy rains in the Arabian Peninsula, triggered higher than normal vegetation growth that created ideal conditions for locusts to feed on and surge, scientists say. Rising sea temperatures are expected to lead to more extreme rainfall - creating enabling conditions for hatching and breeding. Cyclones that disperse the swarms are getting stronger and more frequent.



Swarms of locusts in the walled city of Jaipur, Rajasthan.

(Source: PTI)

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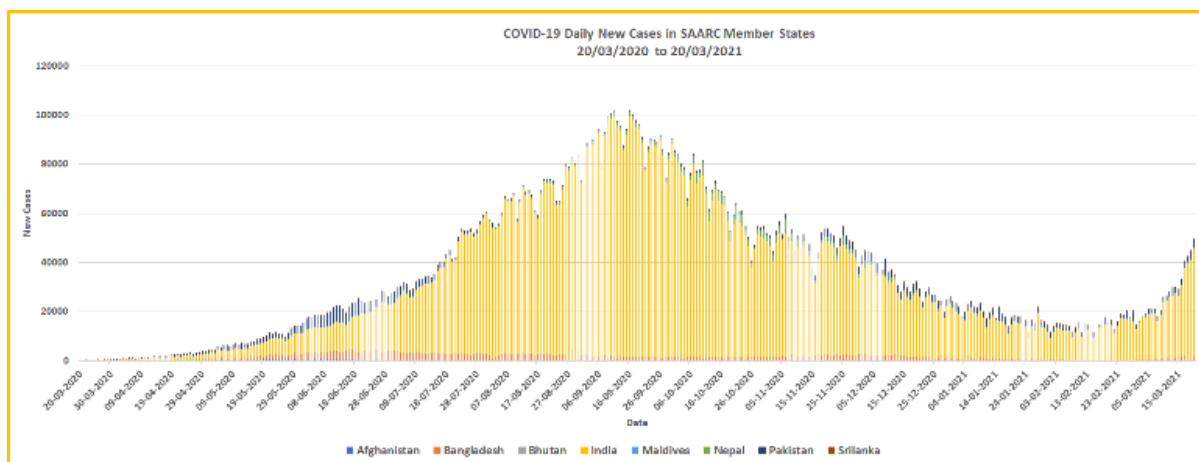
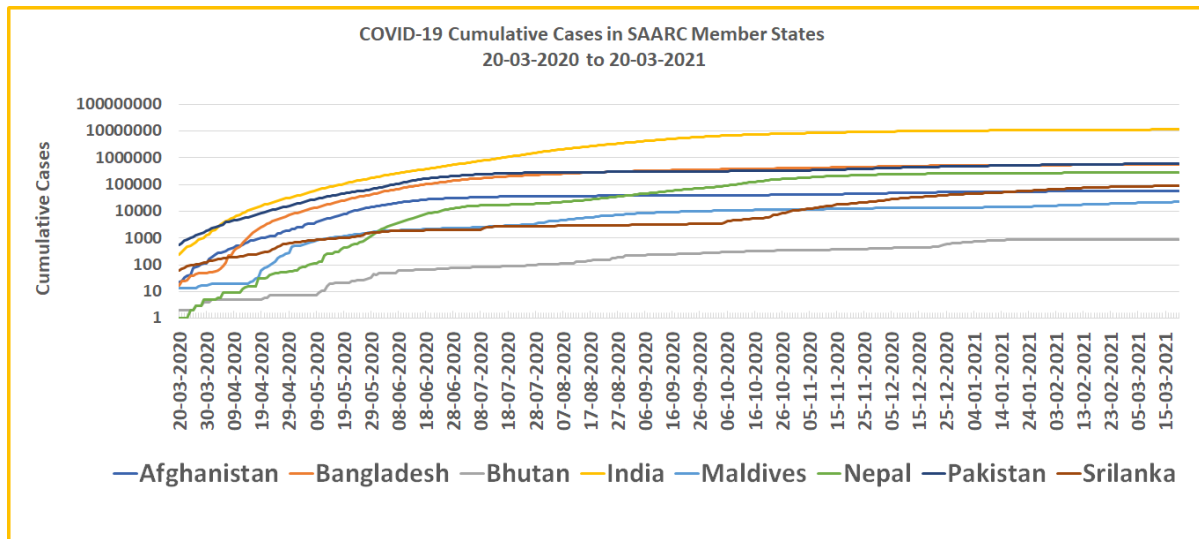
- Desert Locust Guidelines- Biology and behaviour, FAO, Rome, 2001
- The Locust Crisis: The World Bank's Response, FACTSHEET JULY 1, 2020

The Pandemic: Status in SAARC Member States

It's been more than a year since COVID-19 was announced as a pandemic by World Health Organization on 11th March 2020. The graphs below represent the case statistics as cumulative cases and daily new cases in the SAARC region for last one year.

with the active participation of all member countries, to disseminate reliable information and updates on the evolving situation relating to COVID-19 in the region, and guidelines/best practices being followed in member countries.

Various other activities happened in the region with regard to COVID-19:



As on 30th March 2021, Member States have reported 1,38,65,141 cases with recovery number of 1,30,09,900 and a total of 1,91,865 deaths.

A video conference of SAARC leaders on combating COVID-19 was held on 15th March 2020. SAARC Disaster Management Centre (SDMC-IU), Gandhinagar set up a website (<http://www.covid19-sdmc.org/>) on COVID-19 for shared use of SAARC countries. The website aims,

- A video conference of health professionals representing all SAARC countries at the level of Director General of Health Services (DGHS) was held on 26 March 2020. At this conference, chaired by the DGHS of India, a wide range of issues relating to COVID-19 were discussed extensively with active and purposeful participation of all sides.

- A video conference of senior trade officials, inviting all SAARC countries, was held on 8 April 2020 to discuss the impact of travel restrictions and the larger COVID-19 situations on intra-regional trade.
- A video conference of SAARC Health Ministers on COVID-19 hosted by Pakistan on 23 April 2020. This event followed India's earlier initiative of hosting a video conference of senior health professionals on 26 March 2020, which had proved to be a productive and outcome-oriented exercise to promote greater regional cooperation against COVID-19.

Many countries worldwide and in the SAARC region are now in vaccination phase for the management of COVID-19. In SAARC region, India launched a unique initiative of Vaccine Maitri which means Vaccine Friendship. India's vaccine production capacity and its supply are helping in fighting the virus in the region.

Under Vaccine Maitri, Member States have received following number of 'Made in India' vaccines:

Afghanistan – 5,00,000

Bangladesh – 3.2 million

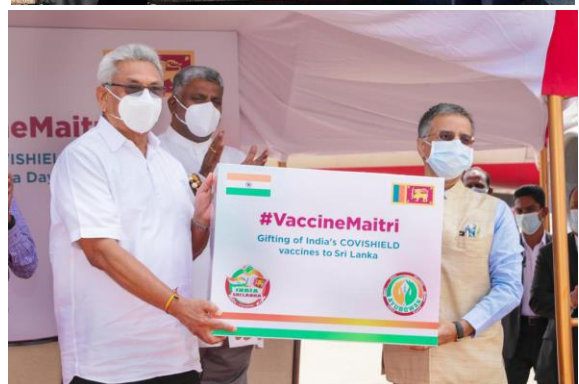
Bhutan – 5,50,000

Maldives – 2,00,000

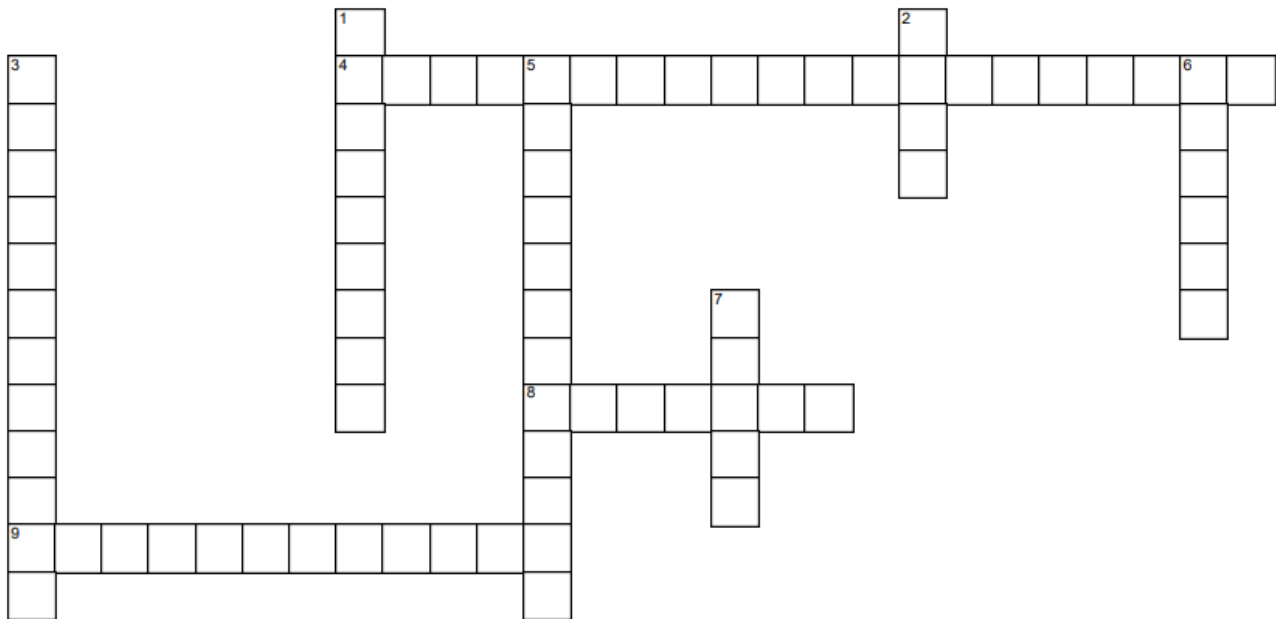
Nepal – 1.1 million

Sri Lanka – 5,00,000 *(Source: www.mea.gov.in/vaccine-supply.htm)*

Glimpses of India gifting vaccine to other Member States.



Puzzle for Readers



ACROSS

- 4 Worldwide collaboration among space agencies, through which satellite-derived information and products are made available to support disaster response efforts.
- 8 A short-range forecast having a lead time/validity of less than 24 hrs
- 9 Category of storm when sustained winds exceed 221km/h for an average of 3 mins.

DOWN

- 1 Temporary arrangements between two countries aimed at restarting commercial passenger services when regular international flights are suspended as a result of the COVID-19 pandemic.
- 2 Sudden release of a significant amount of water retained in a glacial lake, irrespective of the cause.
- 3 Risk that is endogenous to, or embedded in, a system that is not itself considered to be a risk and is therefore not generally tracked or managed, but which have a latent or cumulative risk potential to negatively impact overall system.
- 5 The process of formally or informally shifting the financial consequences of particular risks from one party to another.
- 6 Is characterized by unusually warm ocean temperatures in the Equatorial Pacific.
- 7 Thousands of millions of locusts, which behave as a unit.

WORD BANK: AIRBUBBLE, ELNINO, GLOF, INTERNATIONALCHARTER, NOWCAST, RISKTRANSFER, SUPERCYCLONE, SWARM, SYSTEMICRISK



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