



जवाहरलाल नेहरू विश्वविद्यालय
JAWAHARLAL NEHRU UNIVERSITY

Key remarks on Environmental Resilience and Transformation in Times of COVID-19

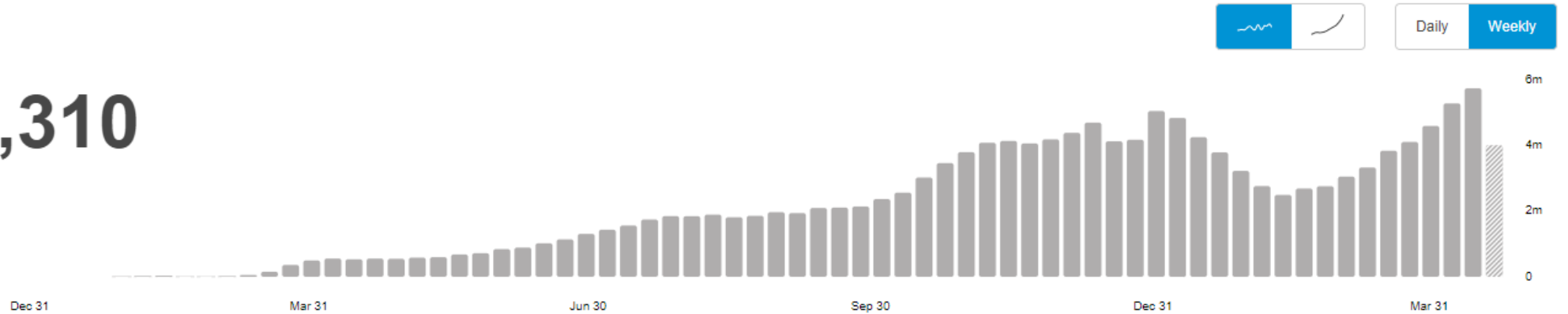
Professor AL Ramathan
Jawaharlal Nehru University
New Delhi, India
17th May 2021

COVID19- a brief snapshot

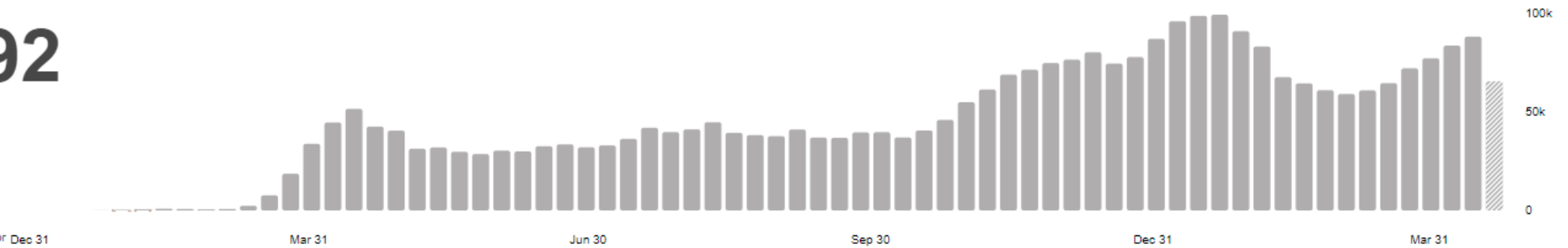
Globally, as of 2:41pm CEST, 30 April 2021, there have been 150,110,310 confirmed cases of COVID-19, including 3,158,792 deaths, reported to WHO. As of 28 April 2021, a total of 1,011,457,859 vaccine doses have been administered.

Global Situation

150,110,310
confirmed cases



3,158,792
deaths

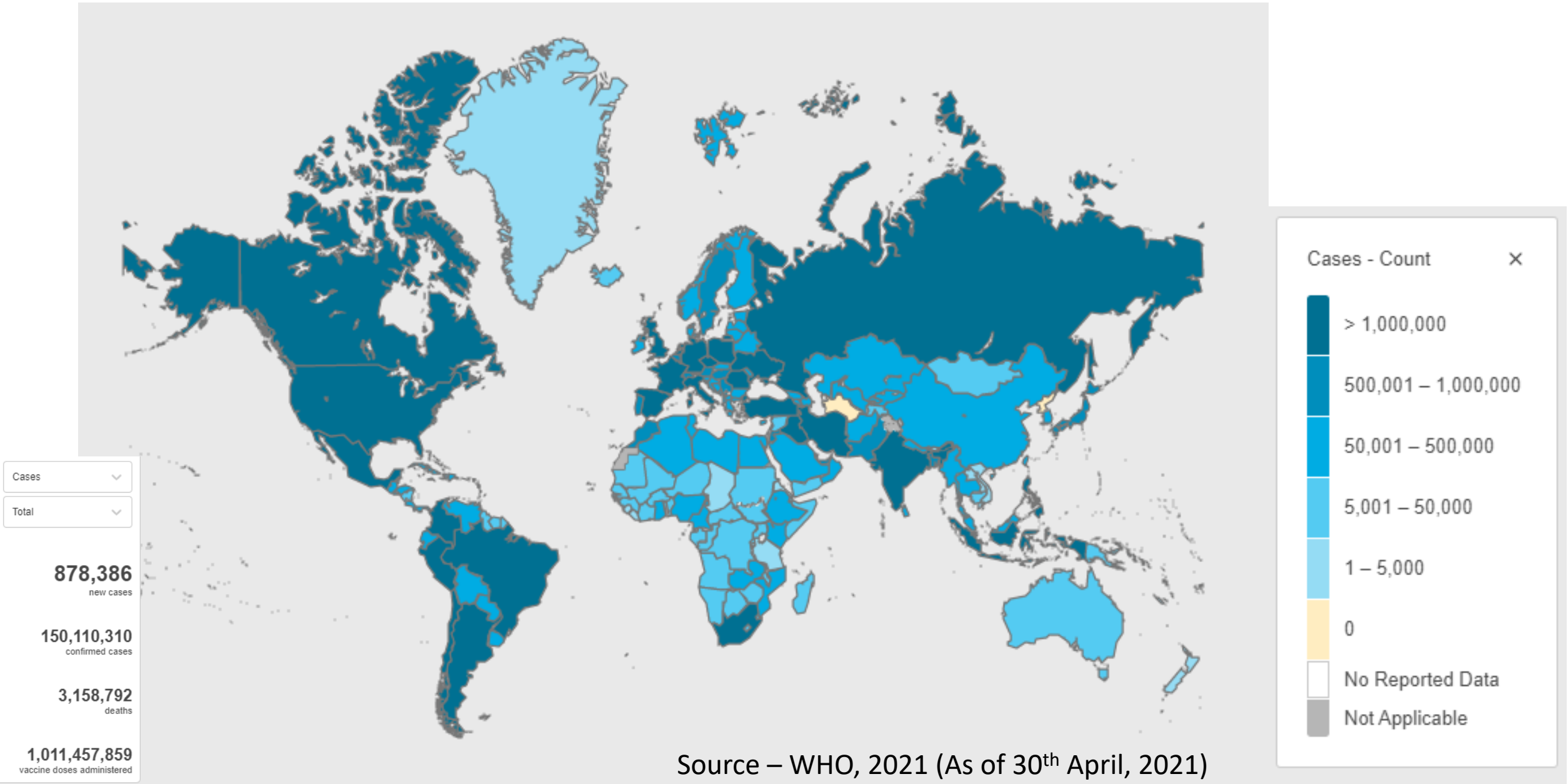


Source: World Health Organization

Data may be incomplete for the current day or Dec 31 week.

Source – WHO, 2021

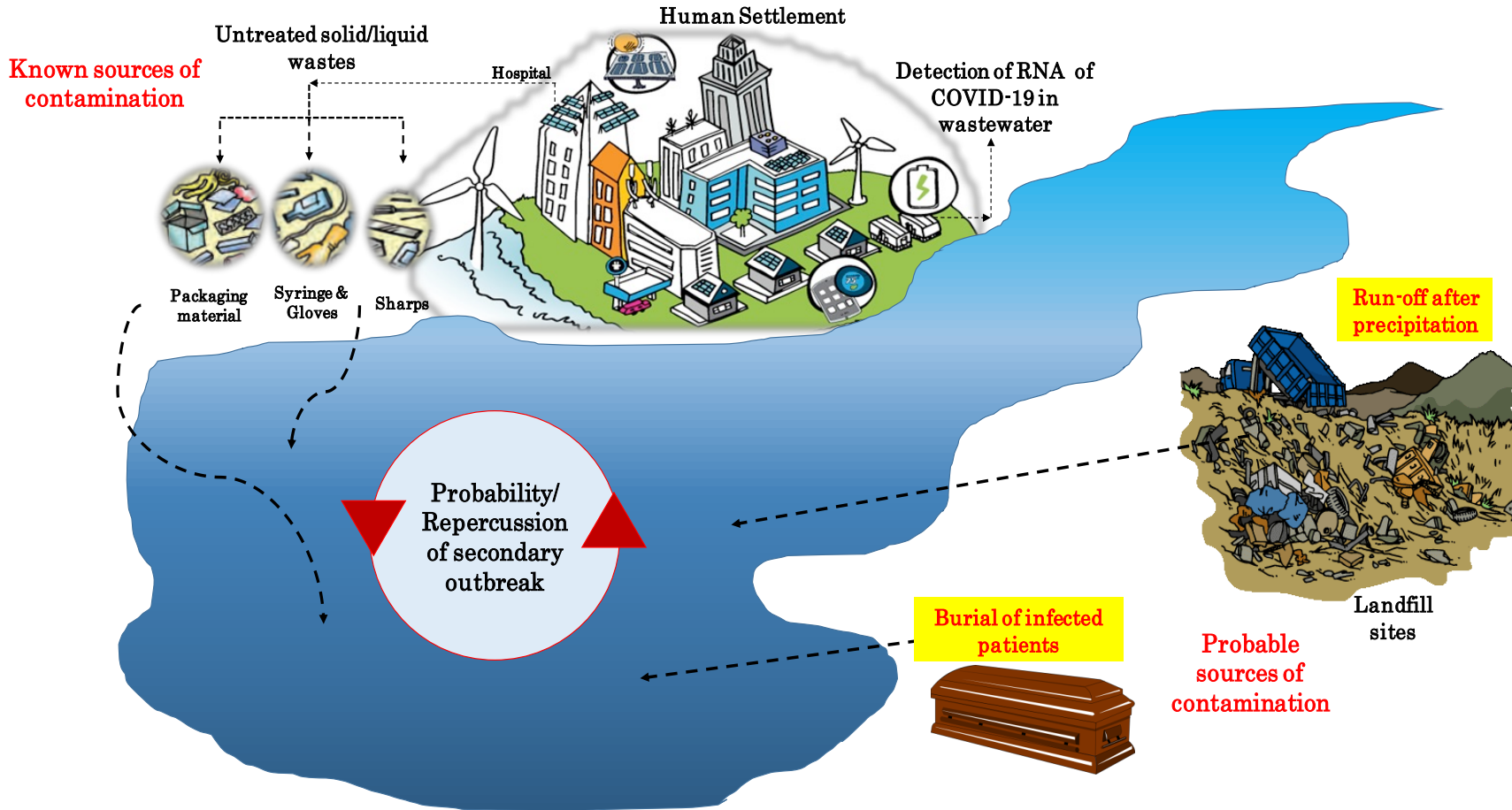
COVID19- a brief snapshot



Information gaps and objectives of this book?

- Although several scientific papers/information are available but are mostly confined to a region and topic.
- Based on the gap identified, this book is one platform which is holistically discussing issues from “cradle to grave” under following five areas, around the world:
 - 1) Causes of COVID 19 pandemic and its impact on human health
 - 2) Impact of COVID 19 on water resources (planning, management, and governance)
 - 3) Impact of COVID 19 on air quality (monitoring, fate, transport, and drivers of socioenvironmental change)
 - 4) Impact of COVID 19 on marine and lacustrine environment
 - 5) Management perspectives (Governance, SDGs and environmental justice)

COVID 19 on water resources



- It discussed the effect of COVID19 on water quality and quantity from rivers, lakes, coastal water.
- Comparative cases from pre and post COVID19 situation around the world
- Among various issues highlighted in this section, one of the important issues here, we have discussed importance of wastewater surveillance early for detection of COVID19

Impacts of COVID 19 on atmosphere

- Discussed impact of COVID19 induced lockdowns on air quality
- How to do the air sampling and monitoring to detect the various impacts of COVID
- Cases are from many countries from different continents
- Short-Term Resilience and Transformation of Urban Socio-environmental Systems to COVID-19 Lockdowns using Air Quality as Proxy

Management perspectives (Governance, SDGs and environmental justice)

- In this section we have focussed on
 - Different adaptation and mitigation measures to achieve global goals like SDGs. E.g. SDGs interlinkages
 - Green economy
 - Nexus approach
 - Participatory approach
 - Use of indigenous knowledge to generate livelihood and boost economy

Role of scientific communities in this pandemic and way forward?

- Engage in transdisciplinary research to provide most relevant and real time information as every sphere of the earth is severely impacted due to COVID19 and its keep changing with time
- Adaptation and mitigation measures should be transboundary and holistic in nature
- **Hazard identification and assessment followed by hazard prevention and control** - Disseminate the useful information about impact of COVID19 on different natural resources like water, air, soil and coast etc., to the policy makers to plan mitigation measures at timely scale
- Risk communication, education, and training
- Help government to formulate policies that can help to reduce exposure to COVID-19 include:
 - a) Encouraging workers who are ill to stay home without fear of loss of pay or benefits
 - b) Using email, phone, teleconferences instead of face-to-face contact
- Post pandemic recovery i.e. should develop robust response plans based on scientific information to make relevant changes at system level. This will help recover a nation in terms of better health, economy, natural resources and human well-being.

What can individuals do?

- Be informed and prepared.
- Wear a mask.
- Maintain social distancing
- Wash your hands frequently
- Use alcohol-based hand sanitizer
- Avoid touching your eyes, nose, and mouth
- Stay home when you are sick
- Cough or sneeze into a tissue or your elbow
- Clean and disinfect frequently touched objects and surfaces such as cell phones.



Thank you for your valuable time