

Figure 3.8. Impacts by Disaster Type in 2019

These figures indicate that the number of people killed by disasters is decreasing, while impacts of disasters, especially from storm, are increasing in the past 30 years.

### 3.2. Information Dissemination

Among the many ways of disseminating DRR information are: regular issuance of ADRC Highlights (a monthly newsletter); dissemination via GLIDE; dissemination through Sentinel Asia and other similar platforms; and sharing of information at conferences and learning events.

#### 3.2.1. ADRC Newsletter

One of ADRC’s important tools for information dissemination is the ADRC Highlights, which has been issued since 1 June 1999. It had been issued twice a month until FY 2007. After that, beginning 2008, it has been issued monthly following the renewal of its design.



Figure 3.9. ADRC Highlights November 2020 Edition

ADRC Highlights (published in English, Russian, and Japanese) is uploaded on the website, and its text version is distributed by email to the list of subscribers comprising: ADRC counterparts, former visiting researchers, former GLIDE visiting researchers, participants in the past ADRC annual meetings, visitors to ADRC, trainees in JICA's training courses which ADRC conducted, and participants in international conferences which ADRC took part. ADRC also registers e-mail addresses of those who wish to subscribe to the newsletter upon the receipt of request e-mail. ADRC has been updating its mailing lists in order to deliver the newsletter more effectively and efficiently to readers.

As of 28 February 2021, the numbers of subscribers to the ADRC Highlights were 2,319 for English version, 200 for Russian version, and 894 for Japanese version. The contents include articles on the latest ADRC activities, reports on participation in international conferences, and other events which ADRC staff members attended and gave presentations in, as well as reports by ADRC Visiting Researchers from member countries and interns. As ADRC could not conduct its activities in a normal format this year due to the global pandemic, the ADRC Highlights included various new topics including letters from former VRs regarding COVID-19 related situations in their countries, as well as participation in online seminars, introducing ADRC's online resources on COVID-19 in Asia, and ACDR2020.

### 3.2.2. Sharing of GLIDE Numbers

As mentioned in section 2.4, GLIDE is a disaster identifier system that is commonly formatted but has unique numbers assigned to every disaster. ADRC disseminates detailed information about disaster through GLIDE.

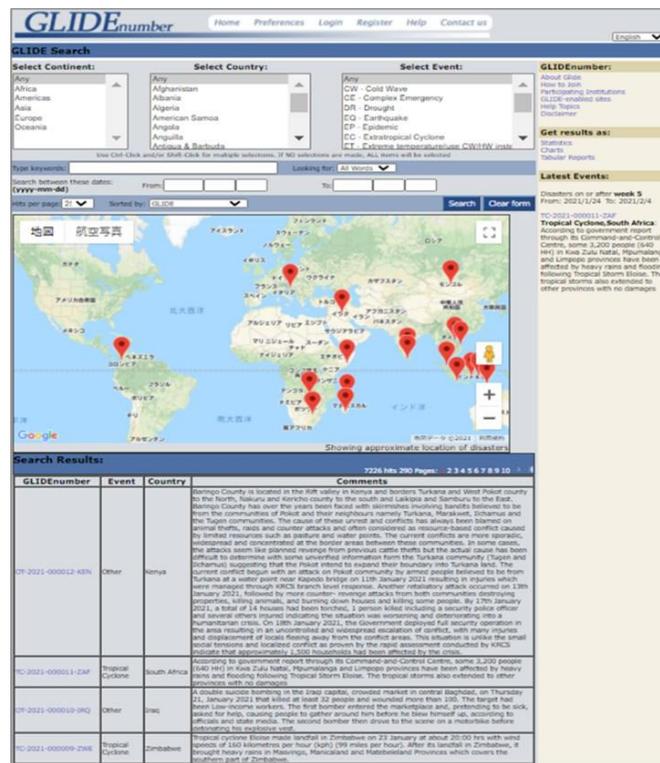


Figure 3.10. GLIDE Information

GLIDE numbers (e.g., EQ-2021-000003-IDN) are hyperlinked to detailed information such as situation reports shared by relevant organizations. It also links to country information which contains data, such as trends of natural disasters and disaster management system. The information is regularly updated with the original links, and shared to the users.

### 3.2.3. Data sharing through Sentinel Asia's Platform

In the event of a disaster, it is important to be able to quickly assess the disaster area for emergency response. For this reason, the use of earth observation satellites to analyse the disaster area and provide data to the local community is useful and effective. This is why ADRC continues to participate in the Sentinel Asia project, which was launched in 2006 with an objective of establishing a disaster risk management system by making the use of satellite images in Asia. ADRC functions as the focal point to receive emergency observation request in the framework of the Sentinel Asia. Upon receiving a request, ADRC decides whether the

request is appropriate and whether the emergency observation should be implemented mainly by assessing the damages and casualties. Based on its own judgement, ADRC will forward the request to space agencies that participate in the Sentinel Asia Project, namely: ISRO (India), JAXA (Japan), GISTDA (Thailand), NARL (Taiwan), CRISP (Singapore), MBRSC (United Arab Emirates).

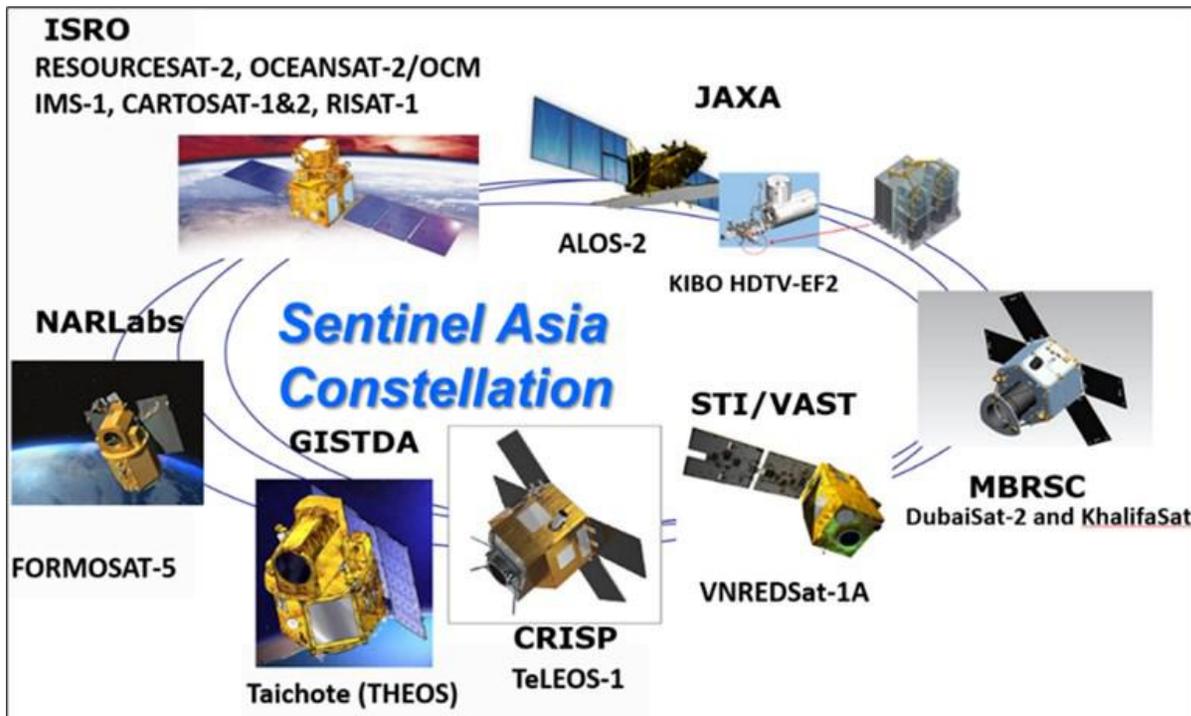


Figure 3.11. Data Provider Nodes of Sentinel Asia

As of January 2021, 111 organizations from 28 countries and region joined Sentinel Asia. In spite of the year-to-year changes in the number of requests, the ratio of activated numbers remains stable at around 80%. After a peak of 2010-2011, however, the number of requests reduced after ALOS, a laser sensor had stopped in May 2011. From January to December 2019, 28 emergency observations were requested, 25 of which were undertaken after the operation of ALOS-2 (succeeding satellite of ALOS) which started in November 2014. In FY 2020, Sentinel Asia received 28 requests from JPT members and 28 were activated (Figure 3.12).

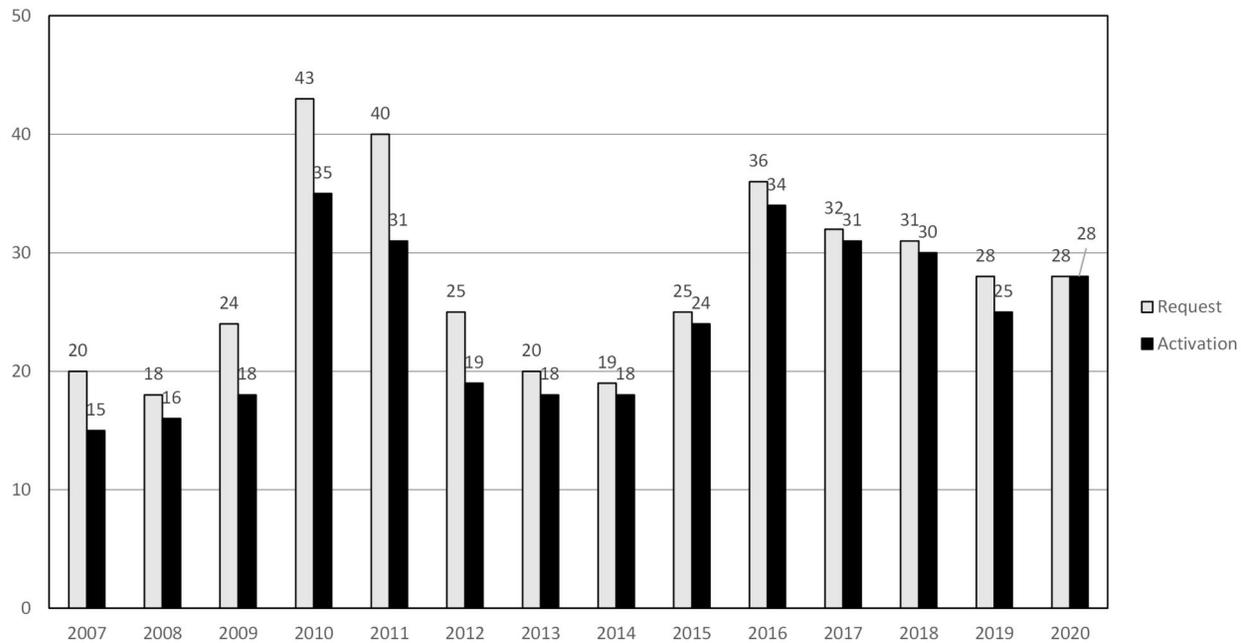


Figure 3.12. Emergency Observations 2017-2020

### 3.2.4. Sharing Information at Conferences and Events

ADRC actively participate in related global, international, regional, and national conferences and learning events to disseminate disaster risk reduction information. Some of these events are highlighted in section 5.2.