

Table of Contents

1. Asian Disaster Reduction Center.....	3
1.1 Key Activities	3
1.2 Composition.....	3
1.2.1 Member and Advisor Countries	4
1.2.2 Partner Organizations.....	6
2. Highlights of FY2023	9
2.1 Activities in Figures.....	9
2.2 Asian Conference on Disaster Reduction 2023	9
2.2.1 Opening Session	10
2.2.2 Roundtable Session	11
2.2.3 Session 1: Innovative Solutions for Resilient Societies: DRR Technologies for Earthquakes and Geological Hazards	13
2.2.4 Session 2: Adaptation to the Climate Crisis: Innovative Approaches to Monitoring and Responding to Glacial Lake Outburst Floods (GLOFs) and Intensifying Floods	14
2.2.5 Closing Session	15
2.3 Study Visit to the 2023 Türkiye Earthquake-Affected Areas	16
2.3.1 Fault movement	17
2.3.2 Housing recovery process	17
2.3.3 Key observations	19
2.4 Report on the 2024 Noto Peninsula Earthquake	19
2.4.1 Issuance of GLIDE number	20
2.4.2 Satellite imageries	20
2.4.3 Assessments	20
2.4.4 Study Visit to Noto Peninsula Earthquake-Affected Areas	21
2.5 Japan Visit to the ACE-LEDMP Middle Level	22
3. Information Sharing on DRR	27
3.1 Information Collection.....	27
3.1.1 Country Reports on DRR.....	27
3.1.2 Latest Disaster Information (FY2023).....	28
3.1.3 Natural Disaster Databook 2022	30
3.2 Information Dissemination	32
3.2.1 ADRC Highlights.....	32
3.2.2 Data Sharing through GLIDE Number System.....	32
3.2.3 Data Sharing through Sentinel Asia	33
4. Human Resource Development.....	37
4.1 Visiting Researchers Program.....	37
4.1.1 Activities During the Program	37
4.1.2 Research Topics.....	38

4.1.3	Networking of Visiting Researchers	38
4.2	JICA Knowledge Co-creation Program	39
4.2.1	Comprehensive DRR for Central and South American Countries	39
4.2.2	Malaysia “LEP2.0 Enhancement of the Disaster Risk Management Capacity of the National Disaster Management Agency (NADMA)” Countermeasures against Sediment related Disaster	40
4.2.3	Comprehensive DRR for Central Asia and Caucasus	41
4.2.4	Promotion of Mainstreaming DRR (Group and Region focused)	42
4.2.5	Comprehensive DRR for the African Region	42
4.2.6	Comprehensive Disaster Risk Reduction	43
4.2.7	Malaysia “LEP2.0 Enhancement of the Disaster Risk Management Capacity of the National Disaster Management Agency (NADMA)” Countermeasures against Flood Control	44
4.3	Online Tsunami Seminar Series	44
4.4	Short-Term Programmes	45
4.4.1	DDPM Visit	45
4.4.2	NIT Wakayama College	46
4.4.3	Atma Jaya Yogyakarta University	46
4.4.4	Internships at ADRC	47
5.	Cooperation and Partnerships	51
5.1	Research Cooperation	51
5.1.1	QZSS DC Report Demonstrations	51
5.1.2	Climate Change Impact Projection Study	52
5.1.3	ASEAN Project	55
5.1.4	Pilot Project on Utilization of ICT for CBDRM in Malaysia	55
5.2	International Engagements and Partnerships	56
5.2.1	APEC-EPWG	56
5.2.2	APRSAF/Sentinel Asia	58
5.2.3	UNDRR/APP-DRR	60
5.2.4	ESCAP/WMO: Typhoon Committee	60
5.2.5	ASEAN	62
5.2.6	Other International Engagements	64
6.	International Recovery Platform.....	69
6.1	International Recovery Forum 2024.....	69
6.2	Contributions to the G20 Working Group on Disaster Risk Reduction	71
6.3	Knowledge Management	72
6.4	8th National Convention for the Promotion of Disaster Reduction	72
6.5	2024 Sendai Symposium for Disaster Risk Reduction and the Future	73
7.	Natural Disaster Databook 2023.....	77
7.1	Natural Disaster Data.....	79
7.1.1	Global Disaster Data.....	79

7.1.2	Asian Disaster Data	82
7.2	Climate Related Disasters	86
7.2.1	Global trend in climate-related disasters	86
7.2.2	Asian trend in climate-related disasters	87
7.3	COVID-19 Data	88
7.3.1	Global Situation	88
7.3.2	COVID-19 Situation in ADRC Member Countries	89

Annexes

Annex 1: History of Establishment of ADRC

Annex 2: Overview of International Recovery Platform

Annex 3: Notes on Sources of Data for the Natural Disaster Databook

List of Tables

Table 1.1	Timeline of the Expansion of Member and Advisor Countries	4
Table 1.2	Counterpart Agencies.....	4
Table 3.1	List of reports from ADRC member countries	27

List of Figures

Figure 1.1	The 33-member countries of ADRC as shown on the map	3
Figure 2.1	Highlights of ADRC Activities in FY2023	9
Figure 2.2	ACDR2023 Group Photo.....	10
Figure 2.3	Co-chairs of the Roundtable Session	11
Figure 2.4	Government officials who delivered statements at the Roundtable Session	12
Figure 2.5	Co-chairs of Thematic Session 1	13
Figure 2.6	Speakers of Thematic Session 1	13
Figure 2.7	Co-chairs of Thematic Session 2	14
Figure 2.8	Speakers of Thematic Session 2	15
Figure 2.9	Members of the study team.....	17
Figure 2.10	Surface rupture in Sekeroba (left); Liquefaction in Demirkopru (right)	17
Figure 2.11	Construction of permanent housing in Atalar Village, Gaziantep Province	18
Figure 2.12	State buildings in Onikisubat, Kahramanmaras	18
Figure 2.13	Construction of apartment buildings in Kirikhan, Hatay Province	19
Figure 2.14	Example of analysed satellite images shared by ADRC as member of IDC	20
Figure 2.15	Initial assessment information from the Ishikawa Prefectural Government	21
Figure 2.16	Areas visited by the team on 14 -15 March 2024	21
Figure 2.17	Unoccupied trailer houses in Suzu City for the support staff	22
Figure 2.18	Participants of the ACE-LEMP Middle-Level	22
Figure 2.19	ADRC's Approach to the ACE-LEDMP Study Visit to Japan	23
Figure 3.1	Screenshot of ADRC homepage with the latest disaster information	30
Figure 3.2	Natural Disaster Databook 2022	30
Figure 3.3	Top 10 countries with highest number of disaster occurrences in 2022	31
Figure 3.4	Economic losses in 2022: Global data vs. Asian data	31
Figure 3.5	ADRC Highlights published in Japanese, English, and Russian languages	32
Figure 3.6	Screenshot of GLIDE Homepage	33
Figure 3.7	Emergency Observation requests record from 2007-2023	33
Figure 3.8	Sentinel Asia Network	34
Figure 4.1	Cumulative total of VRs as of March 2024.....	37
Figure 4.2	VRs during one of the visits to DRR agency in Japan	38
Figure 4.3	Ms Huang (up) and Mr Alahakoon (down) at the Tsunami DRR Seminar.....	39
Figure 4.4	Trainees experienced an earthquake simulation in the vehicle	40
Figure 4.5	Site visit to Sabo facilities in Nara Prefecture	41
Figure 4.6	Site visit to Sabo facilities along the Karasu River Basin in Gunma Prefecture	41
Figure 4.7	Part of the activities during the site visit to Tajimi Sabo National Highway Office	42
Figure 4.8	Town watching exercise facilitated by Dr Ogawa, Executive Secretary of ADRC	43
Figure 4.9	Site visit to Kizugawa Floodgate, Osaka Prefecture	43

Figure 4.10 Site visit to flood countermeasure infrastructure	44
Figure 4.11 Resource speakers of the Online Tsunami Seminar 2023	45
Figure 4.12 Visits to Kofu Office, Kanto RBD, MLIT (left) and Sumida Office (right)	46
Figure 4.13 ED Sasahara delivered a lecture (left) and group photo of participants (right)	47
Figure 4.14 Interns of 2023: Ms De Chavez, Mr Creton, and Mr Svensson	47
Figure 5.1 Prototype receivers for QZSS DC Report	51
Figure 5.2 Basic Information of QZSS DC Report Demonstration in Six Countries	52
Figure 5.3 Screenshot of the 1st Webinar Series	53
Figure 5.4 Screenshot of the 2nd Webinar Series	54
Figure 5.5 Explanation of the ICT Tools for CBDRM	55
Figure 5.6 Review meeting at Ranau District Office, Sabah State, Malaysia	56
Figure 5.7 Co-chair PD Suzuki co-facilitated the meeting	56
Figure 5.8 Mr Potutan of ADRC moderating the session	57
Figure 5.9 Mr Potutan of ADRC serving as resource speaker	58
Figure 5.10 Group photo of participants	59
Figure 5.11 Dr Tatebe of ADRC delivering a presentation	59
Figure 5.12 Agenda of APP-DRR Forum	60
Figure 5.13 Group Photo at TC-56 Session	61
Figure 5.14 ADRC participation in the 18th IWS	61
Figure 5.15 Group Photo of participants to the 18th WGDRR Meeting	62
Figure 5.16 ED Sasahara and Director Murakami of CAO	62
Figure 5.17 Participants of the AIDRR	63
Figure 5.18 ED Sasahara presenting at the meeting	64
Figure 5.19 Workshop on Technical Expert Service	64
Figure 5.20 Flyer of the 3rd Expert Forum	65
Figure 5.21 UNDRR presentation at the workshop	65
Figure 5.22 Discussions during the visits to the Hatay Mustafa Kemal University	66
Figure 6.1 Chair IRP Steering Committee Mr Ronald Jackson, UNDP (left) with the panellists	69
Figure 6.2 Panellists of the first session	70
Figure 6.3 Panellists of the second session	71
Figure 6.4 IRP Booth at the Bosai Mirai Forum 2024	73
Figure 7.1 Global trend of natural disaster occurrence 1900-2023 (EM-DAT/CRED, 2024)	79
Figure 7.2 Global disaster occurrence by disaster type 2023 vs 1993-2023 (EM-DAT/CRED, 2024)	80
Figure 7.3 Number of people killed by disaster type 2023 vs 1993-2022 vs 2023 (EM-DAT/CRED, 2024)	80
Figure 7.4 Number of people affected by disaster type 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	81
Figure 7.5 Economic losses by disaster type 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	82
Figure 7.6 Trend of natural disaster occurrences in Asia 1900-2023 (EM-DAT/CRED, 2024)	82
Figure 7.7 Top 10 disaster occurrences in Asia 1900-2023 (EM-DAT/CRED, 2024)	83
Figure 7.8 Disaster occurrence in Asia by disaster type 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	83
Figure 7.9 Number of people killed by disaster type in Asia 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	84
Figure 7.10 Number of people affected by disaster type in Asia 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	85
Figure 7.11 Economic losses by disaster type in Asia 2023 vs 1993-2022 (EM-DAT/CRED, 2024)	86
Figure 7.12 Global trend of climate-related disasters 1993-2022 (EM-DAT/CRED, 2024)	87
Figure 7.13 Trend of climate-related disasters in Asia 1993-2022 (EM-DAT/CRED, 2024)	87
Figure 7.14 Cumulative number of confirmed COVID-19 cases as of December 2023 (WHO, 2024)	88
Figure 7.15 Cumulative number of COVID-19 deaths as of December 2023 (WHO, 2024)	88
Figure 7.16 Cumulative COVID-19 confirmed cases in ADRC member countries as of December 2023 (WHO, 2024)	89
Figure 7.17 Cumulative COVID-19 deaths in ADRC member countries as of December 2023 (WHO, 2024)	89