

## Chapter 4: Overview of Natural Disasters in Asian and ADRC Member Countries

### 4.1 Types of Disasters and their Effects in Asian and ADRC Member Countries:

This section deals with the pattern of disasters in Asian and ADRC member countries. Among ADRC's 24 member countries, 18 countries (excluding Singapore, Armenia, Myanmar, Lao PDR, Cambodia and Uzbekistan) will be discussed with the disaster records of 2003. Remaining six countries does not have record of significant disasters in CRED-EM-DAT database for 2003<sup>3</sup>. Here we also discussed the Asian countries which had recorded disasters for the year 2003. All the ADRC member countries are from Asia except Papua New Guinea and Russia. Table 10 shows the disaster situation according to disaster type of each member country..

According to Table 10, **drought** seriously affected China, the second highest affected population in the world in 2003. Having a severe impact on the human development activities of these countries, droughts have also badly affected the countries of Indonesia, Pakistan and Russia..

The impact of **earthquakes** is quite deep in countries like Iran, Afghanistan, Bangladesh, China, Indonesia, Japan, Kazakhstan and Russia in terms of affected people and economy. Iran (Bam) Earthquake is the severest in the world in 2003 in terms of human loss and economic damages. China also suffered severe losses due to earthquakes in terms of human loss and economic damages. Earthquake has also caused considerable effect in Japan in 2003.

**Epidemics** had impact on India, Tajikistan and Vietnam in terms of *totally* affected people. Also, the number of people who died due to epidemics is evident only from Vietnam

**Extreme temperatures** inflicted human loss in India, Bangladesh, Nepal and Pakistan at significant levels in terms of human loss.

The most severe disasters in member countries are **windstorms** and **floods**. More than 80% of the total human loss in ADRC member countries is due to these two disasters. Further, about half of the affected population is also due to floods and windstorms. It can also be seen from the data that nearly 80% of the total economic loss in member countries is due to floods and windstorms. Among member countries, the severest damage in terms of human suffering and economic loss occurred in China, Korea, India, Bangladesh, Sri Lanka, Philippines, Thailand, and Vietnam, though most member countries are affected. Also, **slides** caused considerable human suffering in Philippines, Indonesia and Papua New Guinea.

**Table 10:**

**Natural Disasters in Asia and in ADRC Member Countries (2003 Summary)**  
**(Country/Disaster Type/Disaster Characteristics)**

<b>DisType</b>	<b>Country</b>	<b>Count of DisNo</b>	<b>Sum of Killed</b>	<b>Sum of TotAff</b>	<b>Sum of Damage US\$ ('000s)</b>
Drought	China P Rep	2		51,000,000	
	Indonesia	1		15,000	
	Pakistan	1		54,000	
	Russia	1		1,000,000	
<b>Drought Total</b>		<b>5</b>		<b>52,069,000</b>	
Earthquake	Afghanistan	1	1	1,001	
	Bangladesh	1	2	2,525	
	China P Rep	11	311	2,881,973	488,968
	Indonesia	3	1	3,249	
	Iran Islam Rep	5	43,201	113,191	1,021,666
	Japan	3	2	21,267	1,207,000
	Kazakhstan	1	3	36,626	
	Russia	1	3	1,805	10,600
<b>Earthquake Total</b>		<b>26</b>	<b>43,524</b>	<b>3,061,637</b>	<b>2,728,234</b>

<sup>3</sup> See Note 1 in page ii.

DisType	Country	Count of DisNo	Sum of Killed	Sum of TotAff	Sum of Damage US\$ ('000s)
Epidemic	India	1		2,185	
	Iraq	1		0	
	Tajikistan	1		256	
	Viet Nam	1	15	7	
<b>Epidemic Total</b>		<b>4</b>	<b>15</b>	<b>2,448</b>	
Extreme Temperature	Bangladesh	2	215	0	
	India	2	1,610	0	
	Nepal	1	48	0	
	Pakistan	1	200	0	
<b>Extreme Temperature Total</b>		<b>6</b>	<b>2,073</b>	<b>0</b>	
Flood	Afghanistan	8	145	3,750	
	Azerbaijan	1		31,500	
	Bangladesh	2	252	550,000	
	China P Rep	6	695	152,724,340	8,144,640
	East Timor	2	3	1,000	
	India	6	735	7,564,545	169,000
	Indonesia	7	266	88,428	
	Iran Islam Rep	1		1,370	838
	Japan	1	23	814	7,000
	Lebanon	1		0	
	Malaysia	3	8	18,800	
	Mongolia	1	15	1,650	270
	Nepal	1	239	59,254	
	Pakistan	3	266	1,266,243	
	Philippines	1		3,500	
	Russia	1		600	
	Saudi Arabia	2	12	13,050	
	Sri Lanka	1	235	695,000	29,000
	Tajikistan	1	6	1,755	20,000
		Thailand	3	9	107,700
	Viet Nam	3	128	416,823	105,000
	Yemen	1	15	0	
<b>Flood Total</b>		<b>56</b>	<b>3,052</b>	<b>163,550,122</b>	<b>8,502,148</b>
Slides	China P Rep	2	46	0	
	India	1	25	0	

DisType	Country	Count of DisNo	Sum of Killed	Sum of TotAff	Sum of Damage US\$ ('000s)
	Indonesia	4	119	231,328	3,298
	Iran Islam Rep	1	20	4	
	Kyrgyzstan	1	38	211	
	Pakistan	1	12	0	
	Papua New Guinea	2	13	621	
	Philippines	1	255	217,988	7,000
	Tajikistan	2	1	6,181	41,000
<b>Slides Total</b>		<b>15</b>	<b>529</b>	<b>456,333</b>	<b>51,298</b>
Wild Fires	China P Rep	1		300	
	Russia	1		0	
<b>Wild Fires Total</b>		<b>2</b>		<b>300</b>	
Wind Storm	Bangladesh	3	58	420	
	China P Rep	5	61	9,480,045	437,938
	Hong Kong (China)	2	4	3,533	
	India	7	164	531,314	44,000
	Japan	2	16	2,400	
	Korea Rep	1	130	80,000	5,500,000
	Oman	1	30	0	
	Pakistan	1	51	2,557	
	Philippines	3	85	155,319	30,468
	Russia	1		0	
	Taiwan (China)	1	3	0	
	Thailand	1		5,000	
Viet Nam	1		5,018		
<b>Wind Storm Total</b>		<b>29</b>	<b>602</b>	<b>10,265,606</b>	<b>6,012,406</b>
<b>Grand Total</b>		<b>143</b>	<b>49,795</b>	<b>229,405,446</b>	<b>17,294,086</b>

Source: ADRC, Japan and CRED-EMDAT, Universite Catholique de Louvain, Brussels, Belgium, 2003