

4-1 Data Integration

-2. Damage Data Analysis-

ICHARM



United Nations
Educational, Scientific and
Cultural Organization



• International Centre for
• Water Hazard and Risk Management
• under the auspices of UNESCO



Public Works Research Institute
National Research and Development
Agency, Japan

Comparison of Damage Data Collection Procedures in Japan and Philippines

Item	Japan	Philippines
Casualties	Damage Report by the Fire and Disaster Management Agency 1 st Report: Within 30 minutes from local governments 2 nd Report: Within 20 days after emergency operation 3 rd Report: By Dec. 20 4 th Report: April 30 in next year	Rapid damage and needs assessment (RDANA) based on OCD Operation Manual for Response and
Infrastructure and House, Inundation area	Statistics of flood damage by the Ministry of Land, Infrastructure, Transport and Tourism(MLIT)	Post disaster needs assessment (PDNA)
Overall impact	Situation Report by the Cabinet Office	
Agriculture (Land, Facilities, Yield)	Damage Report by the Ministry of Agriculture, forestry and fisheries	Damage Assessment and Reporting System by Department of Agriculture

Rapid damage and needs assessment (RDANA) in the Philippines

RAPID DAMAGE ASSESSMENT AND NEEDS ANALYSIS

FORM #2 (RDANA) INTENDED FOR PHASE 2 OF RDANA MISSION

http://ocd.gov.ph/attachments/article/144/OCD_Operation_Manual_for_Response.pdf

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Category I	Category II	Category III
	1. General Situation Before Disaster	<ul style="list-style-type: none"> Total Population (Women, Men) Ave No. of persons/family No. of handicapped or PWDs Poverty Rate
	2. General Situation After Disaster	<ul style="list-style-type: none"> Affected Municipalities Persons/ families affected Persons/ families displaced Deaths Injured Missing Children under 5 Pregnant Women Seniors (>60)
	3. Characteristics of Disaster Zone	<ul style="list-style-type: none"> Urban proportion Rural Proportion Economic Activity Ethnic Groups
	4. Accessibility to Affected Municipalities and Disaster Zones	<ul style="list-style-type: none"> By Land/estimated travel time/vehicle type By Air/estimated travel time/flights available By Water/estimated travel time/vessel type

Category I	Category II	Category III
	5. Electricity, Communication and Fuel in Disaster Zones	<ul style="list-style-type: none"> • Electricity • Telephone/fax • Mobile phone • Radio Stations • Television • Radio • Communication • Fuel Distribution
	6. Health	<ul style="list-style-type: none"> • Name of Health Facility • Category • Operational (%) • Non-operational • Type of Damage • No. Beds Available • Water (Y/N) • Electricity(Y/N)/Backup Power
	7. WASH	<ul style="list-style-type: none"> • Water source • Wells • Rivers/streams • Storage infrastructure • Aqueduct • Spring • Others • Impact on water supply: High ; edium; Low; None • Sanitation System • Latrines • Sewer System • Septic Tanks • Waste disposal system • Solid waste • Discharge of grey/black liquids • Rubbish disposa

Category I	Category II	Category III
	8. Food and Nutrition	<ul style="list-style-type: none"> • Food Sources • Means for affected families to prepare food • Food Reserves • Food Interventions • Main Needs in Food and Nutrition • Impact on Food and Nutrition
	9. Shelter	<ul style="list-style-type: none"> • Estimated No. of destroyed shelters: • Estimated No. of damaged shelters: • Estimated No. of families in evacuation centers w/ destroyed shelters: • Estimated No. of families staying with host families:
	10. LIVELIHOOD	<ul style="list-style-type: none"> • Activity/Sector • Farming • Cattle Raising • Fishing • Industrial • Commerce • Manual Labor • Skilled Labor
	11. Protection	<ul style="list-style-type: none"> • Situation of Children • Orphans • Separated from Parents
	12. Education	<ul style="list-style-type: none"> • No. of Classrooms • Furnishings Affected (est %) • Materials Affected (est %) • No of Students Affected

Damage Data from Davao (2012-2017)

Davao-SociloEco_Damage_Hazard_data-20190129.xlsx - Excel

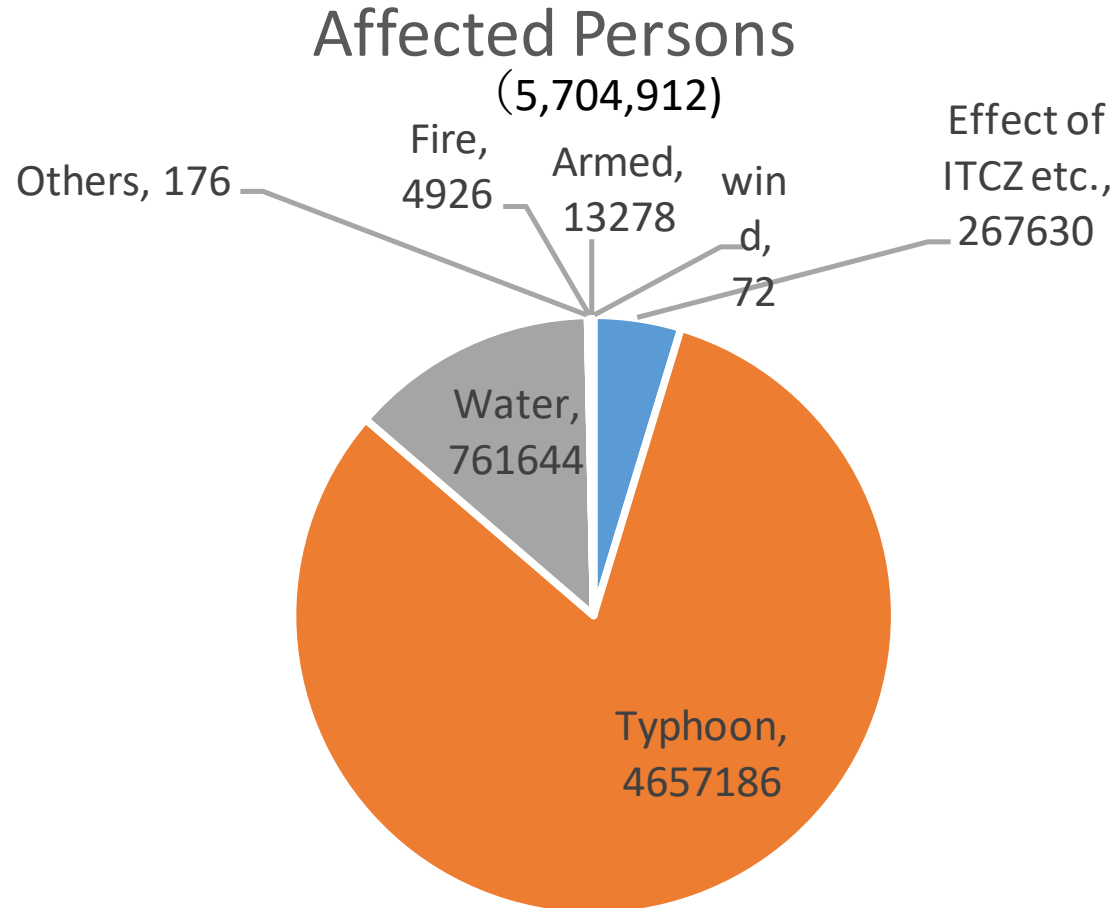
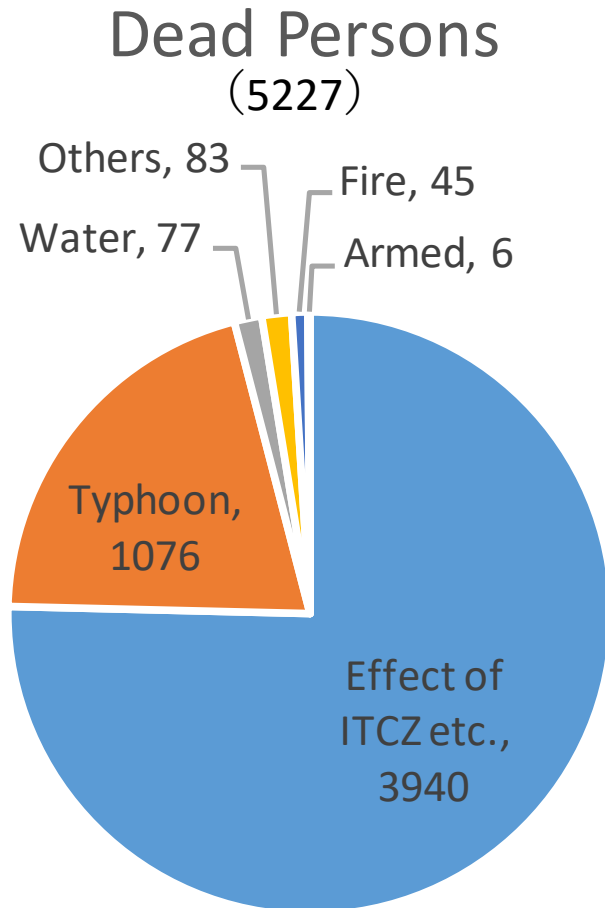
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	A	B	C	D	E	F	G	H	J	K	L
1	AFFECTED LOCALITIES									AFFECTED POPULATION	
2	ID	YEAR	DATE	CATEGORY OF INCIDENT	category	PROV.	MUN.	CITY	BRGY.	FAMILIES	PERSONS
3	1	2012	01/03/12	FLOOD	water	DAVAO DEL NORTE	Asuncion,	TAGUM CITY	73 Barangays	17,084	87,751
4	2	2012	01/05/12	LANDSLIDE	water	COMVAL	PANTUKAN		NAPNAPAN		
5	3	2012	02/16/12	DROWNING	water	DAVAO ORIENTAL	MANAY		MABINI		
6	4	2012	02/16/12	LANDSLIDE	water	DAVAO DEL SUR	MALITA		FISHING VILLAGE		
7	5	2012	03/29/12	FLOOD	water	DAVAO DEL NORTE	CARMEN	PANABO CITY	San Francisco,	26	105
8	6	2012	04/08/12	FLOOD	water	DAVAO CITY		DAVAO CITY	MARAPANGI 3		
9	7	2012	04/26/12	FLASHFLOOD	water	DAVAO DEL SUR	STAR CRUZ		ZONE 4	45	188
10	8	2012	05/09/12	FIRE	fire	DAVAO CITY		DAVAO CITY	BOULEVARD		
11	9	2012	05/13/12	FIRE	fire	DAVAO CITY		DAVAO CITY	SASA		
12	10	2012	06/11/12	LANDSLIDE	water	DAVAO CITY		DAVAO CITY	MARILOG	9	32
13	11	2012	06/12/12	MISSING	others	DAVAO DEL SUR		DIGOS CITY	APLAYA		5
14	12	2012	06/24/12	FIRE	fire	DAVAO ORIENTAL		MATI CITY	CENTRAL	118	472
15	13	2012	07/04/12	SEA SWELL	water	DAVAO CITY		DAVAO CITY	TALOMO, AGDAO	59	272
16	14	2012	07/14/12	VEHICULAR	others	DAVAO CITY		DAVAO CITY	TUGBOK, NEW		
17	15	2012	08/01/12	SEA SWELL	water	DAVAO CITY		DAVAO CITY	GOV. VICENTE	540	2,160
18	16	2012	08/13/12	FIRE	fire	DAVAO CITY		DAVAO CITY	MATINA PANGI	8	36
19	17	2012	08/24/12	STRONG WIND	wind	DAVAO DEL SUR	STA. CRUZ		BACUTAN, ASTORGA	7	28
20	18	2012	08/30/12	FLASHFLOOD	water	DAVAO DEL SUR	STA. CRUZ		ASTORGA, INAWAYAN	12	54
21	19	2012	08/30/12	LANDSLIDE	water	DAVAO ORIENTAL	TARRAGONA		TUBAON		
22	20	2012	09/01/12	EXPLOSION	others	DAVAO CITY		DAVAO CITY	FATIMA		
23	21	2012	09/03/12	FIRE	fire	DAVAO CITY		DAVAO CITY	MATINA API AYA	22	91

M	N	O	P	Q	R
CASUALTY					
DEAD	INJURED	MISSING	EST COST INFRA	EST. COST AGRI.	NO. OF DAMAGE HOUSE
			12,130,000.00	116,854,841.00	42
41	16	22			
2					3

Casualties in 2012-2017



Effect of ITCZ etc.: Effect of ITCZ(Intertropical Convergence Zone),LPA, southwest
Water: Flood, Flooding, Flash Flood, Landslide, Strong waves, Drowning, Sea swell

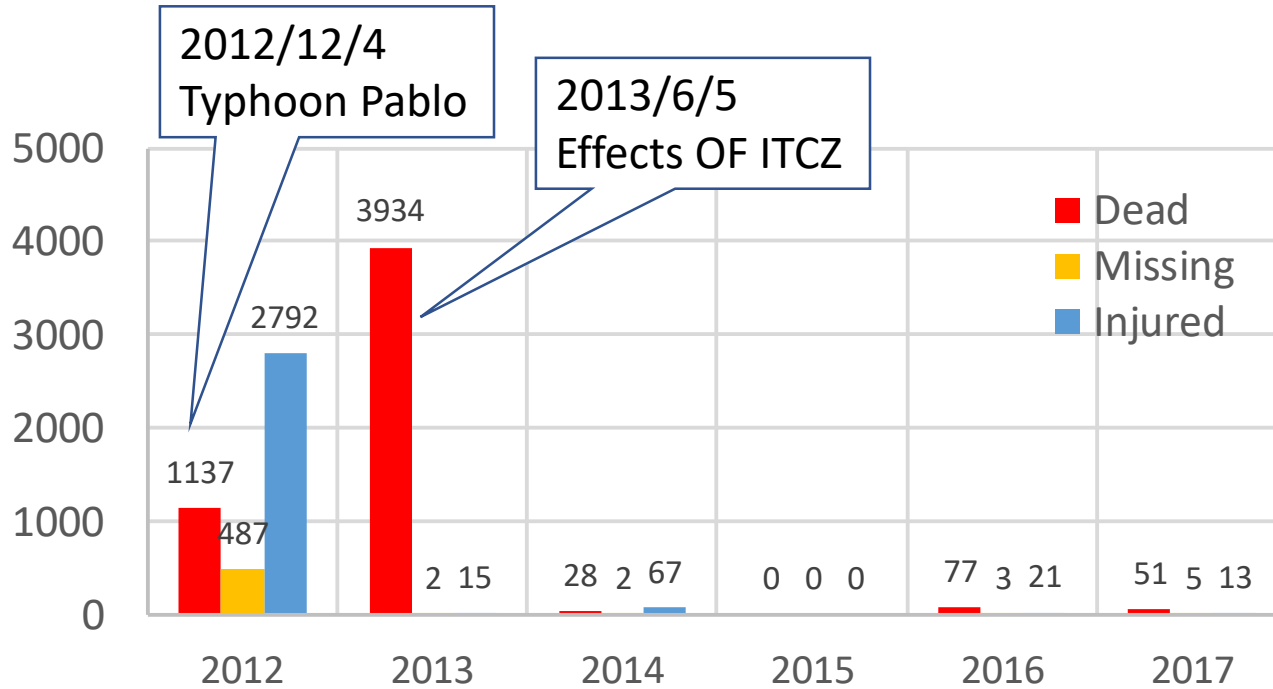
Extreme Events in 2012-2017

	Event	Death
1	2013/6/5 Effects of ITCZ	3875 (Davao City)
2	2012/12/4 Typhoon Pablo	1073
3	2016/2/9 Bombing	73 (Davao City)
4	2012/1/5 Landslide	41 (Comval Province)
5	2013/6/13 Effects of Southwest	40 (Davao City)

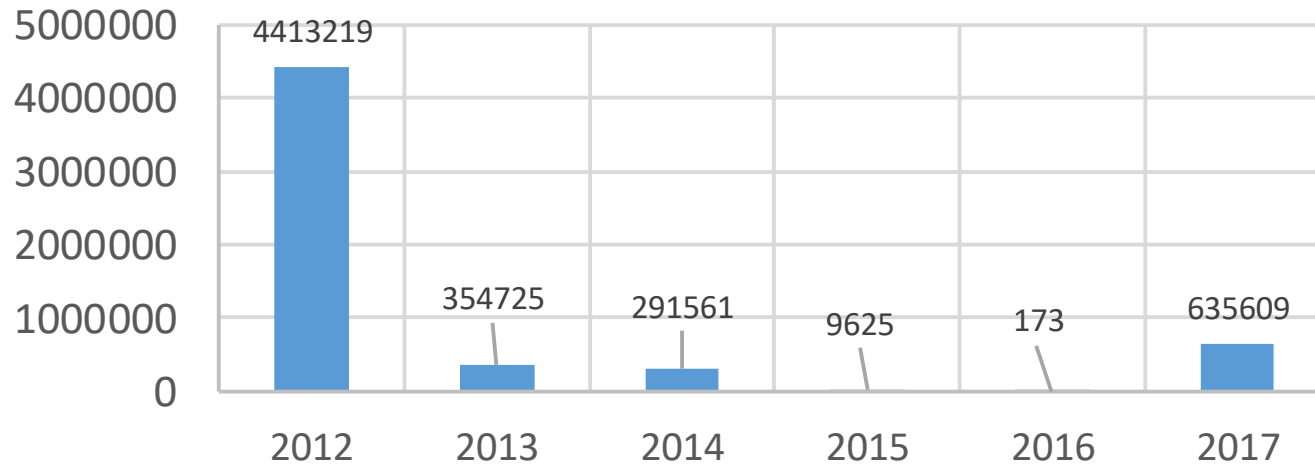
Affected persons by 2013/6/5 Effects of ITCZ(Intertropical Convergence Zone): 775

	Event	Affected Persons
1	2012/12/4 Typhoon Pablo	4295416
2	2013/1/20 Flood in Davao Oriental	344778 (Davao Oriental) (Death 4)
3	2017/12/21 Typhoon Vinta	204175 (Davao Del Norte) (Dearh 1)
4	2017/1/21 Flooding	199217 (Davao Del Norte) (Dearh 1)
5	2014/1/11 LPA	182001 (Davao Oriental) (Death 12)

Casualties in 2012-2017



Affected Persons



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Agricultural Production Loss (P) in 2010-2016

