PROVINCIAL DISASTER RISK MANAGEMENT PLAN, 2010-2015
Province of La Union

1. INTRODUCTION

The management of risks is one of the great challenges of the 21st century. Experiences on major disasters have demonstrated the adverse impacts of the phenomena to the economic development of a country. The disasters divert the energies and resources away from planned growth and development. Natural and technological disasters often cause substantial damage to life and property, infrastructures, cultural heritage, and the ecological basis of life.

Indeed, the Philippines is one of the most natural hazard-prone countries in the world. Its exposure and vulnerability to natural disasters is immensely increasing due to continuing population growth, change in land use and sea patterns, uncontrolled migration, unplanned urbanization, unabated environmental degradation and the threat of global climate change.. Allowing dense populations on a floodplain or permitting poor or unenforced building codes in earthquake zones is as likely as a natural event to cause human and property casualties and losses. Similarly, allowing the degradation of natural resources increases the risk of a disaster. Consequently, Region I is highly prone to natural disasters. Strong typhoons, floods, coastal erosion, landslides and earthquakes were recurrent phenomena in the region.

On 26 September, Typhoon Ondoy (International name Ketsana) made landfall in the Philippines causing at least 300 deaths and some two million people to be displaced. Over a week after the passage of Typhoon Ondoy, large areas of Metro Manila and nearby provinces remained flooded with waist-high stagnant water, leading to risks of outbreaks of waterborne diseases and health hazards from overflowing solid waste and garbage that had filled drains and mixed with the waterways. Typhoon Pepeng (International name Parma) followed on 3 October, devastating the agricultural sector and affecting more than 300,000 people. The damage caused by the two storms is estimated at Php 208 billion pesos in property and infrastructure, as well as monumental damage to agricultural production. The recent Typhoon “Pepeng” has many lessons to offer which require local governments to redirect their efforts in designing effective management systems for disasters.

Intense storms and floods and long-lasting droughts can erode existing coping capacity of communities to prepare, respond and rebuild after successive hazard events. Eventually, this will increase the vulnerability of communities to natural hazards, Indeed, any increase in disasters will threaten development gains and hinder the implementation of the Millennium Development Goals.

Considering the foregoing, it is therefore imperative to come up for a multidisciplinary understanding of disaster risk management is required. Disaster risk management may be seen as a combination of traditional scientific and technical know-how and an appropriate method of decision-taking. There is a strong need for analysis, in theory and in practice,

especially bringing together different interactions between man, nature, and society. But the main question is not how to solve an isolated problem but how to control different interdependent actions. Henceforth, the management of risks became one of the great challenges of the 21st century. Reducing the risk posed by disasters will be key to achieving our development goals. Thus, the ever growing human, economic and environmental losses due to natural and man-made disasters evidence the need for a systematic approach to the management of risks. While natural hazards cannot be controlled, the vulnerability to these hazards can be substantially reduced by *planned mitigation and preparedness measures*. Reducing the risks on disasters is not an optional extra, but it is central to the very success of development itself. It is an urgent priority not only for the disaster managers, but also for the development planners and policy makers

2. OVERVIEW OF THE PROVINCE

2.1 PHYSICAL PROFILE

2.1.1 Location and Boundaries

La Union is located in the southwestern part of the Ilocos Region bounded on the north and northeast by Ilocos Sur; on the south by Pangasinan; on the east by Benguet; and on the west by the Lingayen Gulf and China Sea (Refer to Map 1.)

2.1.2 Political Subdivisions

The province accounts second least in terms of the number of municipalities and barangays, respectively, Under its jurisdiction is one city and 19 municipalities which is equivalent to 16.39 percent of the region, and 576 barangays accounting 17.76 percent of the region's total (see Map 2).

2.1.3 Land Area and Forest Areas

The province has a total land area of 149,309 hectares of which 54,701 hectares or 36.64 percent of the total area is devoted to agriculture. Forest/wooded areas in the province covers 46,598 hectares or 31.21 percent of the province's total.

2.2 GEOGRAPHY

2.2.1 Climate and Weather

The province has two (2) distinct seasons: the wet season which is characterized by abundant rainfall brought about by the southwest monsoon, and the dry season which is characterized by the striking low rainfall due to passing of the northeast monsoon over the Cordillera Mountains.

The striking low rainfall during the dry season from November to April is due to the very effective shielding of La Union from the northwest and even from the trade winds by the mountain ranges of Northern Luzon. As soon as a drift of wind from the southwest

quadrant comes in May, there is an immediate increase in rainfall since La Union is unprotected from the west. Due to depressions and typhoons which come very frequently in the region and owing to the presence of the so-called wet southeast monsoon or moist equatorial air in the China Sea. The months of May to October have abundant rainfall, the maximum occurring in August. The average annual rainfall is (199 mm. in *2000-station 325 to 192 mm. in **2000-station 222). The month of August showed a maximum rainfall of (608.6 mm in *2000 –station 325 vs 646.3 mm. in **2000), respectively. Minimum (tangible) rainfall was seen in March.

2.2.2 Topography and Slope

The province has predominantly hilly terrain, which gradually rises eastward from the shore. The western border is a coastal plain of raised coral alluvium (sand/clay) deposited by flowing water and overlaying older sediments. The irregular coastal plain is narrowest in the south of Damortis, Sto. Tomas and widest in the north at Balaoan where it extends almost 15 kilometers inland from the China Sea. The eastern portion is predominantly mountainous but lower in contour than the Cordillera Mountain ranges of Benguet and Mountain Province with a linear north and south arrangement.

Table 1. SLOPE CATEGORY DISTRIBUTION, BY MUNICIPALITY

DISTTRICT/ MUNICIPALITY/ CITY	LAND AREA (Has.)	AREA BY SLOPE CLASSIFICATION							
		0-8%		8-18%		18-30%		OVER 30%	
		AREA	%DIST.	AREA	%DIST.	AREA	%DIST.	AREA	%DIST.
DISTRICT I	**70,069**	**289.42**	**51.62**	**44.49**	**41.27**	**266.67**	**46.05**	**100.11**	**40.77**
BACNOTAN	6,507	36.82	6.57	1.25	1.16	22.50	3.89	4.50	1.83
BALAOAN	6,870	52.45	9.36	6.00	5.57	9.00	1.55	1.25	0.51
BANGAR	3,604	33.04	5.89			2.25	0.39	0.75	0.31
LUNA	4,489	40.39	7.20	0.25	0.23	4.25	0.73		
SN FDO CITY	10,688	48.63	8.67	10.50	9.74	37.50	6.48	10.25	4.17
SAN GABRIEL	15,500	6.89	1.23	11.84	10.98	100.70	17.39	35.57	14.48
SAN JUAN	5,186	29.19	5.21	4.07	3.78	17.14	2.96	1.46	0.59
SANTOL	8,237	8.75	1.56	8.78	8.14	40.08	6.92	24.76	10.08
SUDIPEN	8,988	33.26	5.93	1.80	1.67	33.25	5.74	21.57	8.78
DISTRICT II	**79,240**	**271.20**	**48.38**	**63.31**	**58.73**	**312.43**	**53.95**	**145.46**	**59.23**
AGOO	5,135	29.85	5.32	6.75	6.26	12.50	2.16	2.25	0.92
ARINGAY	12,207	48.24	8.60	5.73	5.32	62.71	10.83	5.39	2.19
BAGULIN	14,762	1.71	0.31	2.75	2.55	58.76	10.15	84.40	34.37
BAUANG	7,160	41.98	7.49	2.00	1.86	24.75	4.27	2.87	1.17
BURGOS	4,516	0.25	0.04	2.00	1.86	36.16	6.24	6.75	2.75
CABA	4,862	14.00	2.50	2.67	2.48	31.95	5.52		
NAGUILIAN	8,740	33.98	6.06	4.75	4.41	45.42	7.84	3.25	1.32
PUGO	5,585	7.97	1.42	9.50	8.81	2.70	0.47	35.68	14.53
ROSARIO	7,000	42.64	7.61	9.49	8.80	16.75	2.89	1.12	0.46
STO. TOMAS	3,424	20.42	3.64	2.59	2.40	7.46	1.29	1.95	0.79
TUBAO	6,031	30.16	5.38	15.08	13.99	13.27	2.29	1.80	0.73
LA UNION	**149,309**	**560.62**	**100.00**	**107.80**	**100.00**	**579.10**	**100.00**	**245.57**	**100.00**

The highest peak in the province is in the municipality of Bagulin with an elevation of 1,200 feet above sea level. Other areas with an elevation of more than 800 feet are found in San Gabriel and Burgos (see Map 3).