PDNA AT A GLANCE

Lesotho

Severe Weather Events, December 2010 – February 2011

Disaster Risk Profile of Lesotho

The Kingdom of Lesotho is a land-locked nation located in the Drakensberg mountain range in Southern Africa. It has an area of approximately 30355 km² and had in 2009 an estimated population of nearly 2.1 million with nominal per capita GDP of US$ 836 (in 2010). About 75 % live in rural areas, often in scattered mountain villages, while the most of the urban population lives in and around the capital Maseru and the surrounding low lands. The hazards that affect Lesotho are drought, snowfall, hailstorms, strong winds, localized floods, and early frost. Lesotho's vulnerability to hazards is compounded by a number of other underling factors, including high levels of poverty particularly in rural areas, the scattered nature of rural settlements, which makes the provision of and access to social services difficult. The high HIV prevalence rate has resulted in the existence of vulnerable groups, particularly Orphans and Vulnerable Children (OVCs).

The disaster

A series of severe weather events hit Lesotho between December 2010 and February 2011, with conseqent river floods, run-off from hill slopes and rockslides. For 40 days since the end of December 2010, rainfall measues in the northern districts of the country was equivalent to six months of rainfall under normal conditions. The rest of the country received 50% of normal rainfall for six months. The accumulated rainfall of December 2010 and January 2011 the highest recorded since 1933 recorded in the lowlands. Additionally, strong winds and localized hailstorms caused severe damages. As initially rains started late and remained below average until November, the impact on the agricultural sector was substantial. The Lesotho Vulnerability Assessment Committee therefore estimated that some 250,000 people – or 13.6 % of the total population - were affected by the events; among those affected over 3360 were displaced.

Figure 1: Damaged house by severe weather events

Immediate response – Early Assessment and Post Disaster Needs Assessment

Following the floods and severe weather events a nation wide rapid assessment was conducted by the Government of Lesotho (GoL) through its Disaster Management Agency (DMA) in mid January 2011. Following this assessment, GoL met with development partners including the World Bank, the UN Emergency Task Force, (comprised of UNDP, WFP, FAO, UNICEF, WHO and UN-Habitat), and the European Commission and requested support for a comprehensive Post Disaster Needs Assessment (PDNA). The national emergency response and contingency plans developed in February 2011 estimated a total resource requirement of M670 million (US$95.7 million) to address the immediate and medium term impacts of the heavy rains. In order to fund the emergency response and contingency plan, government planned a round table discussion with donors in Lesotho. In response to the floods the UN mobilized a total US$1.35 million, while the Lesotho Red Cross Society (LRCS) mobilized Non-Food Items (NFI) worth M691,862 (CHF89,880).

Following the humanitarian relief efforts the PDNA was conduced between March 22 and April 20, 2011 as a first building block in the planning process towards recovery and reconstruction. The PDNA process involves background work, capacity building, field assessments, sector reporting and macro-economic modeling. The results of the PDNA were finally presented to the cabinet on May 4.

Methodology used for PDNA

The PDNA uses two tools: The 'Damage and Loss Assessment' (DALA) and the 'Human Recovery Needs Assessment' (HRNA). The DALA is quantitative in nature and is used to value damages and the subsequent economic losses arising from the floods and highlights possible consequences on the growth of the national economy, on the external sector and fiscal balances, as well as the impacts due to the decline of incomes and livelihoods of households or individuals.

The HRNA also generates quantitative data as needed but focuses on the human and community social impact of disasters, analyzing how disasters affect personal and community livelihoods, access to services, rights, protection and risk reduction mechanisms. The results are then captured in a Recovery Framework that summarizes the recovery recommendations from the sector assessments identified through the PDNA. It outlines the short, medium and longer term risk reduction priorities.

Assessed Damages and Losses

The total value of the disaster effects was calculated at M462.7 million (US$66.1 million), which is equivalent to 3.2% of country's Gross Domestic Product (GDP) and 5.2 of Gross Fixed Capital Formation (table 1). Most of the flood damage was sustained by the road transport sector (M80.3 million or 33% of the total), followed – in order of decreasing importance – by livestock (M44.8 million or 19%), education (M28.3 million or 12%), and housing (M22.4 million or 9%). Considering the losses in production and higher costs of services, the sector of agriculture crops was the most affected (M103.6 million or 47% of the total), followed by road transport (M57.4 million or 26%), livestock (M29.8 million or 13%) and commerce (M20.5 million or 9%) (figure 2). These sectors are crucial to the livelihoods of the poor in Lesotho, and the impact of the events has increased the vulnerabilities of large portions of the population.

Table 1: Summary of damage and losses by the social, productive and infrastructural sectors and by the cross cutting environmental sector due to the 2010/11 severe weather events in Lesotho, in million Lesotho Maloti (M) (1M = 6.9 US$)

		Damage			Losses			Total Damage and Losses		
Sector	Sub-Sector	Value	Ownership		Value	Ownership		Value	Ownership	
			Public	Private		Public	Private		Public	Private
Social		51,139.3	908.5	50,230.8	7,355.8	5,195.8	2,160.1	58,495.2	5,677.2	52,390.9
	Housing	22,374.1	-	22,374.1	2,802.7	642.6	2,160.1	25,176.8	642.6	24,534.2
	Health	481.4	481.4	-	3,959.8	3,959.8	-	4,441.2	4,441.2	-
	Education	28,283.8	427.1	27,856.7	593.3	593.3	-	28,877.2	593.3	27,856.7
Productive		69,474.9	-	69,474.9	153,864.0	-	153,864.0	223,338.8	-	223,338.8
	Agriculture	5,628.0	-	5,628.0	103,579.4	-	103,579.4	109,207.4	-	109,207.4
	Livestock	44,808.3	-	44,808.3	29,815.5	-	29,815.5	74,623.8	-	74,623.8
	Commerce	19,038.5	-	19,038.5	20,469.0	-	20,469.0	39,507.6	-	39,507.6
Infrastructure		120,468.9	120,068.9	400.0	60,395.2	3,014.4	57,367.5	180,864.1	123,096.7	57,767.5
	Transport	80,324.5	80,324.5		57,367.5	-	57,367.5	137,692.0	80,324.5	57,367.5
	Communications	750.0	350.0	400.0	13.3	-	-	763.3	363.3	400.0
	Electricity	1,522.8	1,522.8	-	125.3	125.3	-	1,648.1	1,648.1	-
	Water and sanitation	37,871.6	37,871.6	-	2,889.1	2,889.1	-	40,760.8	40,760.8	-
Cross-Sectoral		-	-	-	-	-	-	-	-	-
	Environment									
Total		241,083.2	120,977.5	120,105.7	221,615.0	8,210.2	213,391.5	462,698.1	128,773.8	333,497.2

The spatial distribution of damage and losses was not even; some districts were more affected than others (see figure 3). Maseru District sustained the highest value of damage or asset destruction (M79.6 million), followed by Mokhotlong (M41.8 million), Botha Bothe (M24.7 million), Leribe (M23.8 million) and Berea (M23.4 million). In terms of production losses the most affected Districts were Mokhotlong (M41.5 million), followed by Leribe (M32.3 million) and Maseru (M31.2 million). It was also found that the higher values of damage and losses per capita caused by the floods disaster corresponded to the Districts that showed the lowest values against the Human Development Index (HDI).

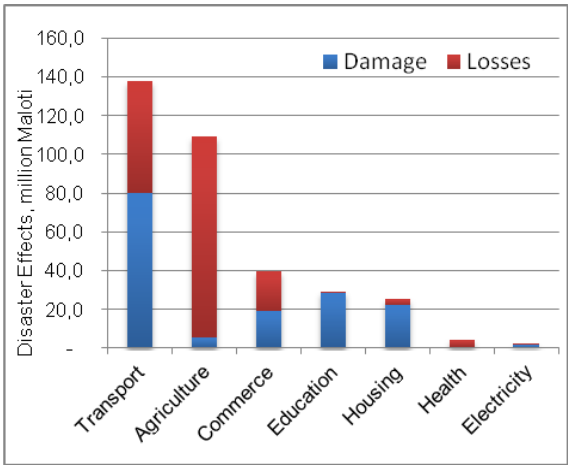

Figure 2: The most affected sectors

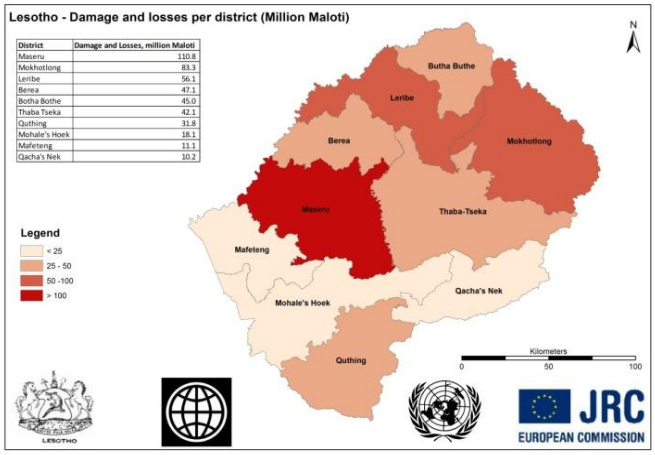

Figure 3: Most affected regions

Recovery and Reconstruction Needs

The financial requirements to achieve post-disaster recovery and reconstruction have been determined at M649.3 million. The PDNA makes a distinction between recovery needs and reconstruction needs, with the former covering the restoration of livelihoods and governance systems and services while the latter covers repair, rebuilding and the improvement of private and public infrastructure, as well as mainstreamed investments in disaster risk management (see table 2).

Table 2: Total estimated post-disaster needs (in thousand Lesotho Maloti, in 2011 prices)

Sector	Recovery (i)	Reconstruction (ii)	TOTAL
	Thousand Maloti	Thousand Maloti	Thousand Maloti
Social Sectors	**4441**	**75,409**	**79,850**
Housing	643	46,829	47,472
Education	818	28,023	28,841
Health	2,980	557	3,537
Productive Sectors	**325422**	**22,587**	**348,009**
Agriculture - Crops	234,014	413	234,427
Agriculture - Livestock	87,314	4,209	91,523
Commerce	4,094	17,965	22,059
Infrastructure	**16808**	**204,573**	**219,554**
Transport	16,300	161,300	177,600
Communications	8	990	998
Water Supply	500	40,456	40,956
Electricity	TBD	1,827	1,827
Cross- Sectoral	TBD	TBD	TBD
Cash for Work Program	TBD	TBD	TBD
Total	**346,670**	**302,569**	**649,239**

Short-term recovery needs

The PDNA reveals that Lesotho is on the immediate verge of a food security crisis that will start during the second half of 2011. The impending food crisis may be partially mitigated by the harvesting of the winter crops, but will not be overcome until the harvest of the 2012 summer crop. Unless it is met by some kind of intervention, the food deficit is likely to result in widespread hunger and increased malnutrition and disease. The recovery recommendations were designed to be responsive to the development setting of the country. For example, the analyses point to the need for immediate action to forestall projected potential worsening of food insecurity in the coming six-months. The financial requirements to achieve post-disaster recovery have been determined on the basis of estimated value of production costs and the likely higher costs of living and are grouped into three categories for (i) restoration of personal and household incomes; (ii) rehabilitation of basic services; and (iii) restoration of productive activities and food security.

Out of the total estimated recovery needs of M346.7 the needs for the agriculture sector are by far greatest summing up to 92.7% of the recovery needs (M321.3 million), followed by the transport sector (M16.3 million or 4.7%). Of the recovery needs for the agricultural sector the estimated costs for food imports make up the largest part of these needs with M202.9 million for importing cereals and M74.9 million for importing meat and other livestock related items.

It is proposed that the strategy of choice for restoration of personal and household incomes can be carried out through social protection/cash-for-works program. This should in particular target the most vulnerable population, namely women-headed households, widows and the food insecure, by providing them with a rapid source of cash to restore their livelihoods, while at the same time helping restore basic public services and degraded ecosystems under the principles of building back better. Part of this social protection strategy should therefore also address rehabilitation needs.

Long and medium-term recovery and reconstruction needs

Financial requirements for reconstruction with disaster-reduction features are determined on the basis of the estimated value of damages, plus the costs of 'building-back-better'. They also take into consideration the estimated costs of cross-cutting disaster risk management priorities, which have not been taken into account in the various affected sectors.

Total reconstruction costs are estimated at M302.6 million. The financial requirement for reconstruction is greatest for the road transport sector with M161.3 million, which is equivalent to 53.3% of all reconstruction needs. Most of these needs are required for the reconstruction and building back better of roads, bridges and culverts. The housing sector requires needs for reconstruction of M46.8 million (15.4%); water and sanitation sector (M40.4 million or 13.4%), most of which is needed for the reconstruction of the urban water supply system (M37.1 million), and education sector (M28 million or 9.3%).

Reconstruction must take into consideration the effects of inflation due to higher post-disaster costs and will include the improvement of quality in housing and other sectors and improved design and construction standards, involving risk reduction measures. Recovery and reconstruction needs are summarized in table 2.

Disaster risk reduction program needs

The results of the PDNA indicate that the 2011 disaster happened due to a combination of erratic climate variability (likely to intensify with increasing climate change) and Lesotho's intrinsic natural vulnerability, which is worsen due to weak spatial planning, exposure to economic shocks, and behavioral patterns. New disasters are likely to recur unless there is a fundamental shift in development and economic planning.

Table 3 shows estimates of Disaster Risk Reduction Needs based on comparisons from countries with similar hazard profiles as Lesotho and best practice. More detailed budget amounts should be determined as part of DMA disaster management and planning activities. Among the risk reduction programs needed are programs to design, advocate and enforce building and spatial planning codes (safety codes and resilient planning) to guide developments to areas less vulnerable to natural hazards.

Table 3: Summary of incremental costs for disaster risk reduction needs

Activity	**DRR Needs** thousands Maloti
Mainstreaming DRR into the National Development Plan	**350**
Mainstream DRR into key policies and programs, including reinforcement of safety codes	**2,450**
DRR Institutional Strengthening	**1,750**
Participatory climate resilient planning	**2,100**
Total	**6,650**