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Republic of Zambia



FLOODS RECOVERY ACTION PLAN

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Acronyms

DDMC	District Disaster Management Committee
DMMU	Disaster Management and Mitigation Unit
ITNs	Insecticides Treated Nets
IOM	International Organisation for Migration
MCDSS	Ministry of Community Development and Social services
MoE	Ministry of Education
MEWD	Ministry of Energy and water Development
MoH	Ministry of Health
NGO	Non Governmental Organization
RDA	Road Development Agency
UN	United Nations
ZA	Zambia Army
ZMD	Zambia Meteorological Department
ZNS	Zambia National Service
ZVAC	Zambia Vulnerability Assessment Committee

EXECUTIVE SUMMARY

Following recommendations from the 2009 rapid assessment, the Zambia Vulnerability Assessment Committee (ZVAC) undertook the In-Depth Vulnerability and Needs Assessment in twenty (20) districts. The assessment report made recommendations necessary to mitigate the effects of floods and /or water logging in the affected districts.

In order to ensure speedy implementation of these recommendations, it became necessary to translate the recommendations into a Recovery Action Plan with specific activities and costing.

The document starts with an introduction that discusses the structure and management of the Recovery Action Plan. The required sector specific interventions and costing are then discussed focusing on Education, Health, Nutrition, Infrastructure, Human Settlement and Shelter, Water and Sanitation, Agriculture and Food Security.

It is important to note that recommended interventions reflect sectoral needs in short, medium and long-term perspectives. The financial requirements per sector are also discussed.

The summary of the financial requirements per sector is reflected in the table below:

Table 1: Summary of Financial Requirements for Sectors

Name of Sector	No. of activities	Net Financial Requirements (ZMK)	Net Financial Requirements (US\$) @ K5,000
Education	2	672,000,000.00	134,400.00
Health	3	913,276,775.00	182,655.36
Nutrition	4	3,873,765,850.60	774,753.17
Infrastructure		62,644,544,746.00	12,528,908.95
Human Settlement and Shelter	4	662,920,000.00	132,584.00
Social Protection	3	6,725,000,000.00	1,345,000.00
Water and Sanitation	3	8,379,843,031.00	1,675,968.61
Agriculture and Food Security	6	22,805,937,247.00	4,561,187.45
10% Contingency		10,667,728,764.96	2,133,545.75
Grand Total		117,345,016,414.56	23,469,003.72

The Implementation of the action plan is to be done with full participation of all stakeholders such as relevant Government agencies, donors, UN System, private sector and NGOs. The NGOs in conjunction with the district and satellite disaster management committees will be the front line implementers at the district level. The timeframe for the implementation of interventions is projected to be twelve (12) months beginning in July 2009.

The Disaster Management and Mitigation Unit (DMMU) will spearhead coordination and monitoring of the implementation of the action plan with the support of the

core coordination team, drawing membership from Government, UN, and NGO agencies.

Monitoring and evaluation of the Recovery Action Plan will be based on sector specific performance indicators that form part of this action plan document.

1. INTRODUCTION

The beginning of the 2008/9 rainy season was described by the Zambia Meteorological Department (ZMD) as normal with the rains having started early in most parts of the country apart from the extreme eastern parts of the country (Lundazi, Chama and Isoka). However, as the season progressed it was characterised by wide spread heavy rains resulting in floods in some parts of the country. The floods, which were characterised by wide spread flash flooding mostly in low lying areas of the country (i.e. valleys), negatively impacted the key sectors of the economy. The degree of the impact varied from sector to sector.

In view of the above, the Zambia Vulnerability Assessment Committee (ZVAC) undertook a Multi-sectoral In-depth Assessment in twenty (20) districts. The assessment was aimed at determining the extent and effects of the 2008/9 floods and/or water logging on various sectors of the economy. The provinces and districts where the assessments were conducted included Central Province (Kapiri-Mposhi and Serenje), Eastern Province (Mambwe), Luapula Province (Kawambwa), Northern Province (Mpika, Mungwi and Mporokoso), North-Western Province (Chavuma, Kabompo, Kasempa, Mufumbwe, Mwinilunga, Zambezi) Western Province (Kalabo, Kaoma, Lukulu, Mongu, Senanga, Shangombo, Sesheke)

To ensure a speedy and coordinated response, the Government of the Republic of Zambia has provided a general framework within which all stakeholders will undertake all interventions related to floods. The plan defines the scale of the problem and the rationale for the implementation of the recommended interventions. It brings out the general response strategy and outlines sector based interventions in short and medium to long-term perspectives. Implementation, reporting, monitoring and coordination arrangements are also spelt out.

2.0. SCALE OF THE PROBLEM

The country has experienced floods for three consecutive seasons which have resulted in damage to Infrastructure mainly roads, culverts and bridges as well as Crops. These floods and/or water logging have generally exposed the affected Population to the risk of outbreak of waterborne diseases and increased the likelihood of animal disease incidences to rise. The damage to crops created food insecurity problems in the districts affected in the five (5) provinces although there was a marginal increase in crop production. In order to mitigate the impact of the floods, Government will need to implement short to medium and long-term interventions in all the eight (8) sectors identified to have been affected.

3.0. RATIONALE FOR THE IMPLEMENTATION OF RECOMMENDED INTERVENTIONS

The 2008/09 rainfall season was characterised with wide spread heavy rains in most parts of the country with wide spread flash flooding mostly in low lying areas of the country (i.e. valleys) that resulted into adverse impacts on different key economic sectors such Agriculture and Food Security, Education, Health and Nutrition, Infrastructure, human Habitations Water and Sanitation in five (5) provinces of the country.

The Government should as a matter of urgency address the negative impact of the floods by implementing sector specific interventions which range from short term needs to those that seek to address medium to long term needs. The implementation of the recommended interventions will help open up places that were cut off due to damage to infrastructure, thus effectively restoring the movement of people. The interventions will further help mitigate other negative effects in the identified sectors such as prevention of water borne diseases, maintain economic viability and reduce if not prevent increase in the levels of malnutrition among affected communities through provision of relief.

4.0 GENERAL RESPONSE STRATEGY

The government's strategy is to mobilize all available human, financial and material resources and redirect these to areas that were affected. This strategy also entails cooperate approach by involving all relevant Government, Donor community, UN System, Private sector and NGOs agencies (both local and international).

5.0 REQUIRED INTERVENTIONS

As reflected in the floods In-Depth Vulnerability and Needs Assessment report, the required interventions involve eight (8) sectors with activities ranging from those of short to medium and long term. The main sectors involved are those that the assessment established as having been severely affected by the floods. These are Health and Nutrition, Water and Sanitation, Infrastructure, Human settlement and Shelter, Education, Agriculture and Food Security.

These interventions are based on the fact that there is some level of response going on in each of these sectors. This level of response however, falls short of meeting the demands/needs in the floods affected districts. What is required therefore is the scaling up of the interventions so as to make them more effective and responsive to the needs of the floods affected districts. The required interventions are as summarised in the **sector by activity** in table 2 below:

Table 2: Sector by Activity

SECTOR	ACTIVITY
1. Education	Carryout rehabilitation works on all school infrastructure damaged by floods, construction of school infrastructure (Classrooms, Teachers' houses, VIP latrines) and at 76 identified Schools
	Procurement and Prepositioning of school in a box and recreational kits
2. Health	1. Sub-activity: Disease Prevention and Treatment
	Support the procurement and distribution of essential drugs, vaccines and supplies
	Support the sustained delivery of essential health services such as immunization, child, maternity, HIV/AIDS, TB including through outreach where appropriate.
	Staff refresher training for prevention and control of flood related medical conditions (emergency triage, diarrhoeal diseases, plague etc
	Support integrated disease surveillance and reporting (IDSR) especially measles, polio and cholera surveillance.
	2. Sub -activity: Health promotion
	Health education to communities (on good hygiene practices, disinfection of water and waste disposal, etc).
	3. Sub-activity: Monitoring and Evaluation
Monitoring, technical supervision and support visits	
3. Nutrition	Support to mitigation of nutritional impact of floods on health (Supportive visits and continuous monitoring and evaluation).
	Training of community volunteers in Active Case Finding of malnourished in the flood affected areas.
	Training in management of severe malnutrition in the flood affected districts both for hospital and community management
	Procurement of supplementary and therapeutic feeds (HEPS, F 75 and F100, RUTF) for both malnourished U 5 children and adults
4. Human Settlement and Shelter	Consultations with local leadership (traditional and district administration) on identification of safer lands

	Acquisition of such safe lands to resettle the communities vulnerable to flooding
	Conduct a survey among the concerned communities to determine their willingness to relocate to higher lands and educate them on possible livelihood sources
	Site preparation and development of new settlement
5. Infrastructure	Repairs to Washed Away Bridges
	Construction of New Bridge Structure (Permanent)
	Repair Works to Damaged Culverts/Drifts
	Installation of New Culverts/Drifts
	Reinstatement of washed/eroded embankments and stone pitching
6. Social Protection	Awareness raising
	Capacity building
	Psychosocial support
7. Water and Sanitation	1. Sub activity: Water and Sanitation
	Provision of safe water to affected communities (Household Chlorine, HTH Chlorine)
	Provision of water (boreholes) and sanitation (latrines) infrastructure (rehabilitation and sinking/digging of new ones)
	Provision of water storage containers, soap and hand washing facilities.
	Improvement of water sources
	2. Sub activity: Training
	Hygiene promoters and V-WASHE committees
	Water quality & quantity monitoring, proper usage of home chlorination and HTH, management of water and sanitation facilities and safe excreta disposal.
	Proper garbage handling and disposal
8. Agriculture and Food security	Dry season crop production input support
	livestock disease vaccination
	Livestock dipping
	Procurement of 8,295.46 MTs of Relief food
	Transportation of 8,295.46 MTs of Relief food
	Distribution of 8,295.46 MTs of Relief food

6.0 IMPLEMENTATION PLAN

In order to ensure maximum participation of all stakeholders and at the same time ensure that Portfolio institutions and agencies take up their responsibilities as we scale-up the operation, the affected sectors in conjunction with relevant UN, NGO and Private sector agencies will be responsible for the implementation of their activities based on the sector needs as per attached sector specific annexes. Satellite Disaster Management Committees in conjunction with NGOs will be front line implementers while District Disaster Management Committees will be the overall district supervisors.

6.1 Current level of response

As mentioned earlier, it is important to recognize that a lot has already been done by Government in collaboration with its co-operating partners in terms of response interventions.

The implementation of this action plan should therefore be seen within the context of scaling up of the existing interventions based on the 2009 Rapid Assessment and not necessarily kick-starting of the recovery operation.

6.2 Scaling Up

In order to scale up the level of current response and make the operation more effective and responsive to the needs of the affected populations, it is important that the sector-based interventions are implemented as recommended (***see Annexes 1 to 8 for more details***).

7.0 ROLES AND RESPONSIBILITIES

The major stakeholders such as the Ministries of Education, Health, Agriculture, Works and Supply, Department of Water Affairs, Local Government and Housing, Community Development, Finance and Donor community, the UN system, Private sector including NGOs both local and international will play an important role to

ensure that the planned programmes are timely and efficiently implemented in order for the programme to be effective and responsive enough to achieve the programme objectives. Each Ministry/Department will nominate a dedicated officer who will be part of the coordination core team to oversee the implementation of the recommended interventions. Satellite Disaster Management Committees in conjunction with NGOs will be the front line implementers of the interventions while District Disaster Management Committees (DDMC) will have the district overall supervisory responsibilities.

8.0 TIME FRAME

The activities will be implemented within twelve (12) months beginning in July 2009. This period will cover the implementation of short to medium and some long-term interventions.

9.0 REPORTING ARRANGEMENTS

All implementing agencies will generate progress reports and submit them to DMMU through the National Coordinator on monthly basis. DMMU will in turn consolidate the sector reports in one document and submit it to Government and other stakeholders for decision-making and information sharing.

10.0 COORDINATION

The coordination of the implementation of the rehabilitation plan (short to medium and long term) will be spearheaded by DMMU supported by the Coordination Core Team with representation from Government, Donors, UN system, private sector and NGOs.

11.0 MONITORING AND EVALUATION

Monitoring of the implementation of interventions will be based on the indicators as brought out in the monitoring and valuation indicators table (***Refer to Table 3***) and will be done at different levels namely: through reports, field trips involving a combined team of main stakeholders or individual institutions and organizations. Political leadership at national, provincial and local levels will be critical in ensuring that the objectives of this recovery action plan are achieved in line with its rationale.

Effectiveness of the interventions will be evaluated in terms of outcomes and impact on the target population and districts. A final impact assessment will be conducted. The report will be presented to Government and shared with other stakeholders for important reflections on the response and recovery programme.

Table 3: Monitoring And Evaluation Indicator

SECTOR	RESPONSIBLE INSTITUTION	ACTIVITIES	OUTPUT INDICATORS	OUTCOMES
1.Education	MoE	<ul style="list-style-type: none"> Rehabilitate school infrastructure, teachers' houses and construct VIP latrines Procurement and Prepositioning of school in a box and recreational kits 	<ul style="list-style-type: none"> No. of school infrastructure and teachers' houses rehabilitated No. of pit latrines constructed No. of new schools constructed No. of community schools upgraded No of school in a box kits procured and prepositioned 	<ul style="list-style-type: none"> Improved school Infrastructure Improved teachers' accommodation Improved sanitary facilities Improved school attendance
2. Health	MoH	<ul style="list-style-type: none"> Disease prevention and treatment Health promotion Monitoring and evaluation 	<ul style="list-style-type: none"> No. of ITNs distributed to children under five and pregnant women No of estimated cumulative cases of acute diarrhoea Estimated average rate of acute diarrhoea deaths % of population with access to primary health care services 	<ul style="list-style-type: none"> Improved child and women health Improved disease management Improved access to primary health care services Improved hygiene practices and waste disposal
3. Nutrition	MoH/NFNC	<ul style="list-style-type: none"> Support mitigation of nutritional impact of floods on health through growth monitoring Training of community volunteers in Active Case Finding of malnourished in the flood affected areas Training in management of severe malnutrition in the flood affected districts both for hospital and 	<ul style="list-style-type: none"> Estimated % of children under 5 covered by nutritional surveillance in the affected areas Amount of therapeutic feeds procured. Number of officers trained in infant and child feeding. Number of nutrition education conducted 	<ul style="list-style-type: none"> Improved Nutrition status

SECTOR	RESPONSIBLE INSTITUTION	ACTIVITIES	OUTPUT INDICATORS	OUTCOMES
		<p>community management</p> <ul style="list-style-type: none"> • Procurement of therapeutic feeds (HEPS, F 75 and F100) for both malnourished U 5 children and adults and provides nutrition education during distribution sessions. 		
4.Human shelter and Settlement	DMMU, DEPT.OF RESETTLEMENT UN, HABITAT, IOM	<ul style="list-style-type: none"> • Identification of land for relocation in flood prone areas • Consultation with local leadership • Community sensitization • Human settlement 	<ul style="list-style-type: none"> • No. of flood prone districts visited to identify safer land • No. of pieces of land identified • No. of consultative meetings held with local leadership • No. of sensitization meetings held • No. of cartographic equipment procured • No. of persons resettled on safer land 	<ul style="list-style-type: none"> • People's lives secured • No. of houses collapsing reduced • Improved habitations
5. Infrastructure	RDA,ZNS.ZA	<ul style="list-style-type: none"> • Repairs to washed away bridges • Construction of new bridge structures (Permanent) • Repair works to damaged culverts/drifts • Install new culverts/drifts • Reinstate washed/eroded embankments and stone pitching 	<ul style="list-style-type: none"> • No. of bridges/culverts/drifts reinstated/constructed 	<ul style="list-style-type: none"> • Improved accessibility

SECTOR	RESPONSIBLE INSTITUTION	ACTIVITIES	OUTPUT INDICATORS	OUTCOMES
6.Social Protection	MCDSS, MoH NGOs	<ul style="list-style-type: none"> • Awareness raising • Capacity building • Psychosocial support 	<ul style="list-style-type: none"> • No of awareness campaigns done on children's and women's rights in the communities • No of prevention measures put in place Initiate and promote family and community level safety (prevention) • No of Psychosocial counseling sessions done 	<ul style="list-style-type: none"> • protective environment for children and their families created
7.Water and Sanitation	MEWD	<ul style="list-style-type: none"> • Water and sanitation • Training • Monitoring and evaluation 	<ul style="list-style-type: none"> • No. boreholes drilled • No. of hand pumps installed • No. of water committees trained • No. of sanitary facilities constructed • No of Hygiene promoters and V-WASHE committees members trained 	<ul style="list-style-type: none"> • Improved child and women health • Improved water supply • Increased access to safe water • Improved disease management • Improved sanitary facilities
8.Agriculture and Food Security	MACO,MCDSS,DM MU	<ul style="list-style-type: none"> • Provision of input (FSP) • Promote crop diversification • Animal disease control • Provision of livestock extension services • Provision of livestock husbandry practices • 	<ul style="list-style-type: none"> • No. of beneficiaries reached • Food security at household level • No. of animals vaccinated and treated • Reduction in animal disease outbreaks 	<ul style="list-style-type: none"> • Enhanced agricultural production • Improved animal health
		<ul style="list-style-type: none"> • Provision of relief food 	<ul style="list-style-type: none"> • Total quantity of food aid distributed 	<ul style="list-style-type: none"> • Nutrition status improved

ANNEXES

Annex 1: EDUCATION

Problem statement and rationale

The Education Sector was not spared from the effects of the floods that occurred during the 2008/09 rainfall season. Arising from that, learning was disrupted as School Infrastructure got submerged and damaged resulting in some schools being closed and others were operating at half capacity.

The Ministry of Education has assessed the impact of the floods and prioritized interventions as medium and long term to rehabilitate the damaged infrastructure and reposition school kits.

Activities

The activities to be implemented in the medium term and long term are mainly rehabilitation works on all school infrastructure damaged by floods, construction of school infrastructure (Classrooms, Teachers' houses, VIP latrines) at 76 identified Schools, Procurement and Repositioning of school in a box and recreational kits.

Targets

Carry out rehabilitation works at 76 schools in 20 districts in 6 provinces.

Implementing Agency

Ministry of Education will be the lead-implementing Agency and will be assisted by Cooperating Partners.

Immediate Financial Requirements: ZMK 672,000,000.00 (US\$134,400.00)

Table 4: Education Activity Budget

	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK	Net resource required USD
1	Site selection and planning	50,000,000.00	50,000,000.00	0.00	-
2	Identify implementation partners	1,000,000.00	1,000,000.00	0.00	-
3	Defining criteria for rehabilitation	15,000,000.00	15,000,000.00	0.00	-
4	Procurement and Prepositioning of school in a box and recreational kits	350,000,000.00		350,000,000.00	70,000.00
5	Training on site planning and management	18,000,000.00	0	18,000,000.00	3,600.00
6	Assess the needs and design solution	2,000,000.00	2,000,000.00	0.00	-
7	Provide necessary equipment and materials to construct temporally shelters	50,000,000.00	50,000,000.00	0.00	-
9	Construct temporally classrooms and latrines	350,000,000.00	100,000,000.00	250,000,000.00	50,000.00
10	Assess how the plan is working and make necessary changes to improve the situation	40,000,000.00	40,000,000.00	0.00	-
11	Periodical monitoring to review situation on the ground to make corrections if need be	54,000,000.00	0.00	54,000,000.00	10,800.00
12	Evaluation of the implementation plan	41,000,000.00	41,000,000.00	0.00	-
13	Carryout rehabilitation works on all school infrastructure damaged by floods	2,460,000,000.00	2,460,000,000.00	0.00	-
					-
	TOTAL	7,081,000,000.00	3,299,000,000.00	672,000,000.00	134,400.00

Cost Breakdown of Item 13 in the activity table above

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
Kapirimposhi	Chambulumina	Repairs One classroom	9,000,000.00	9,000,000.00	-
Serenje	Kamwala Basic	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Makopa Basic	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Ngauswe	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Nsabala				-
Mambwe	Chinyololo	Repairs to 3 classrooms, 4 houses 1 water point and 2 sanitation facility	57,000,000.00	57,000,000.00	-
	Kakumbi	Repairs to 5 classrooms, 1 water point and 6 sanitation facilities	65,000,000.00	65,000,000.00	-
	Mfuwe	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	St Lukes Secondary	Repairs to 6 classrooms, 2 water point and 6 sanitation facility	76,000,000.00	76,000,000.00	-
Kawambwa	Muyembe	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Posa	Repairs to 1 classroom and 1 water point	11,000,000.00	11,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
	Salangi	Repairs to 2 classrooms, 4 houses and 4 sanitation facility	54,000,000.00	54,000,000.00	-
Mpika	Chibaye	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Chikakala	Repairs to 3 classrooms, 1 house and 3 sanitation facilities	42,000,000.00	42,000,000.00	-
	Chipundu	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Lifunda	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Lulimala	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Munelu	Repairs to 3 classrooms, and 5 sanitation facilities	42,000,000.00	42,000,000.00	-
	Mupamadzi	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
Mpolokoso	Chewe	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Chinika	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Chiwala	Repairs to 2 classrooms and 2 sanitation facilities	24,000,000.00	24,000,000.00	-
	Fibwe	Repairs to 2 classrooms and 1 sanitation facility	21,000,000.00	21,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
	Kalabwe	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Kambobe	Repairs to 3 classrooms, 1 house and 3 sanitation facilities	42,000,000.00	42,000,000.00	-
	Kanyimba	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Ley	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
Mungwi	Kayambi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Mpooopo	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Mumba	Repairs to 3 classrooms, and 5 sanitation facilities	42,000,000.00	42,000,000.00	-
	Ndasa	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Shimps	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	St Francis High	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
Chavuma	Chambi	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Chivumbo	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Kakoma	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
	Ligundu	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
Kabompo	Dyambombola	Repairs to 3 classrooms, 1 house and 3 sanitation facilities	42,000,000.00	42,000,000.00	-
	Kabulamena	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Kashinskazhi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Mayau	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
Kasempa	Ingwe	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Kakolokolo	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Kalombe	Repairs to 3 classrooms, and 5 sanitation facilities	42,000,000.00	42,000,000.00	-
	Kamakechi	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Kamakuku	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Njenga	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
Mufumbwe	Kashima East	Repairs to 2 classrooms and 2 sanitation facilities	24,000,000.00	24,000,000.00	-
	Matushi	Repairs to 2 classrooms and 1	21,000,000.00	21,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
		sanitation facility			
	Shukwe	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
Mwinilunga	Jimbe	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Kakoma	Repairs to 3 classrooms, 1 house and 3 sanitation facilities	42,000,000.00	42,000,000.00	-
	Luwvi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Matonchi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
	Mukangala	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Mumpulumbu	Repairs to 3 classrooms, and 5 sanitation facilities	42,000,000.00	42,000,000.00	-
	Ntambu	Repairs to 2 classrooms and 1 house 1 water point and 6 sanitation facilities	24,000,000.00	24,000,000.00	-
Zambezi	Lweji	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Malola	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Kanchale	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
	Mangongi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
Kaoma	Kanchale	Repairs to 2 classrooms and 1 house	24,000,000.00	24,000,000.00	-
	Mangongi	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
Lukulu	Lutembwe	Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	Lyande	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Mataba	Repairs to 3 classrooms, 1 house and 3 sanitation facilities	42,000,000.00	42,000,000.00	-
	Nalonde	Repairs to 5 classrooms, 1 water point and 6 sanitation facilities	65,000,000.00	65,000,000.00	-
Senanga	Chikwiba	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Ikeleenge	Repairs to 6 classrooms, 2 water point and 6 sanitation facility	76,000,000.00	76,000,000.00	-
	Luwi	Repairs to 2 classrooms	18,000,000.00	18,000,000.00	-
	Mande	Repairs to 1 classroom and 1 water point	11,000,000.00	11,000,000.00	-
	Senanga	Repairs to 2 classrooms, 4 houses and 4	54,000,000.00	54,000,000.00	-

Districts	Name of School	Activity	Resource required ZMK	Resource available ZMK	Net resource required ZMK
		sanitation facility			
Shangombo	Buewa	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Lilonda	Repairs to 3 classrooms, 1 water point and 3 sanitation facilities	38,000,000.00	38,000,000.00	-
	Nangweshi	Repairs to 2 classrooms and 1 house 6 sanitation facilities	76,000,000.00	76,000,000.00	-
Sesheke	Limpumpu	Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
		Repairs to 3 classrooms	27,000,000.00	27,000,000.00	-
		Repairs to 3 classrooms, and 3 sanitation facilities	36,000,000.00	36,000,000.00	-
	GRAND TOTAL		2,460,000,000.00	2,460,000,000.00	-

Table 5: Education Implementing Schedule

ACTIVITIES	Year 2009					Year 2010							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Aug	Sep
MEDIUM TERM													
Identify damaged school sites and develop bills of Quantities, schedule of materials	■	■	■	■	■	■	■						
Identify small contractors and enter into labour contract for the rehabilitation of classrooms, teachers' houses and construction of VIP latrines at the schools affected by the floods			■	■	■	■	■	■	■	■			
Rehabilitation of School Infrastructure and Teachers' houses and construction of VIP Latrines at schools affected by the floods.					■	■	■						
Procurement and Prepositioning of school in a box and recreational kits				■	■								
Periodical monitoring to review situation on the ground				■				■				■	

Annex 2: HEALTH

PROBLEM STATEMENT

Reference is made to the 2009 heavy rains that caused numerous health problems in the assessed 20 districts in the country. The health sector experienced challenges as follows;

- Disruption of health services such as inaccessible health facilities and the resulting surge in demand at other service delivery points is likely to result in shortages of essential drugs /supplies and overburdened health staff.
- Pooling of water leading to an increase in the mosquito breeding sites and a possible increase in the cases of malaria especially after the flood water recedes.
- Cross-contamination of drinking water sources and faecal disposal facilities coupled with the difficulties faced to access alternative safe water sources may result in epidemics of diarrhoeal diseases such as cholera and dysentery.
- Overcrowding of displaced people in their places of resettlement may lead to respiratory tract infection and outbreaks of immunizable diseases especially measles.
- The displaced people especially children and pregnant women are likely to miss their immunization schedules and their antenatal services leaving them vulnerable to contracting preventable diseases.

ACTIVITIES

- Disease prevention and treatment.
- Health education.
- Monitoring and evaluation.

Immediate Financial Requirements: ZMK 913,276,775(US\$182,655.36)

Table 6: Health Activity Schedule

ACTIVITY	RESOURCE REQUIRED	RESOURCES AVAILABLE	GAP	TIME FRAME 2009						COMMENT
				Jul	Aug	Sep	Oct	Nov	Dec	
1. Sub-activity: health (Disease Prevention and Treatment)										
Support the procurement and distribution of essential drugs, vaccines and supplies	109,386,400	0	109,386,400							
Support the sustained delivery of essential health services such as immunization, child, maternity, HIV/AIDS, TB including through outreach where appropriate.	85,000,000	0	85,000,000							

Staff refresher training for prevention and control of flood related medical conditions (emergency triage, diarrhoeal diseases, plague etc	160,000,000	0	160,000,000							
Support integrated disease surveillance and reporting (IDSR) especially measles, polio and cholera surveillance.	121,290,375	0	121,290,375							
2. Sub -activity: health promotion										
Health education to communities	398,000,000	0	398,000,000							

(on good hygiene practices, disinfection of water and waste disposal, etc).										
3. Sub-activity: Monitoring and Evaluation										
Monitoring, technical supervision and support visits	39,600,000	0	39,600,000							
GRAND TOTAL			913,276,775							

Table 7: Essential Drugs and Supplies

LIST OF ESSENTIAL DRUGS AND SUPPLIES				
NO.	ITEM	QUANTITY	UNIT PRICE(K)	TOTAL COST(K)
1	Insecticide Treated Nets	1,000	30,000	30,000,000
2	ORS	5,000 satchets	2,000	10,000,000
3	Antimalarials			
	Arthemeter- lumefantrine (coartem)[20/120] 18's & 12's	12's 200pac	178,000	35,640,000
4	Sulfadoxine- pyrimethamine tabs	20pac of 1000 tab	119,800	2,396,400
	Quinine 300mg tab	300pac of 100tab	1920	576,000
	Quinine injection (300mg/ml) 2ml ampoules	100boxes	7,500	750,000
5	Antibacterials			
	Metronidazole(250mg)	50pac	48,180	2,409,000
	Cotrimoxazole	100pac	23,500	2,350,000
	Ciprofloxacin(250mg)	200pac	1,620	324,000
6	Intravenous fluids			
	Ringers lactate 500mls W/gset	40 boxes	110,000	4,400,000
	5% dextrose w/gset	20 boxes	112,000	2,240,000
	50% dextrose (10ml bottles	160 boxes	18,000	2,880,000
	Normal saline 500mls W/gset	15 boxes	117,000	1,755,000
7	Canulae			
	14G	500	1,200	600,000
	16G	500	1,200	600,000
	18G	1,000	1,200	600,000
8	Syringes			

	2ml	25x 100	120	300,000
	5ml	50x100	180	900,000
	10ml	5x100	252	126,000
	Cotton wool	500g x 400	11,500	4,600,000
	Methylated spirit 2.5litres	2.5litresx 300	15,000	4,500,000
	Plaster/strapping	120x 10cm	12,000	1,440,000
	Total			109,386,400

Annex 3: NUTRITION

Problem Statement

Floods are likely to cause numerous health and nutritional problems in the country. An anticipated increase in levels of food and nutrition insecurity and diseases related to overcrowding is inevitable. The broad nutrition sector challenges include the following:

- Disruption of preventive health and nutrition services such as inaccessible health facilities and inadequate Growth Monitoring and promotion service points and the resulting surge in demand at other service delivery points is likely to result in shortages of essential medicines and nutrition supplies and over-stretched health staff.
- Resultant household food and nutrition insecurity will lead to malnutrition and increased susceptibility to infectious and immunizable diseases such as measles.

Activities

The mitigation measures for Nutrition fall under the broad categories as shown in table1 below.

Financial Requirements: ZMK3,323,765,850.60(US\$664,753.17)

Table 8: Nutrition Activity Schedule

NUTRITION SECTOR FLOOD DISASTER RESPONSE								
ACTIVITY	Resource required	Resource Avail	Gap	Timeframe (2010)				Comment
				Q1	Q2	Q3	Q4	
Sub-activity: Nutrition								
Support to mitigation of nutritional impact of floods on health (Supportive visits and continuous monitoring and evaluation).	500,000,000.00	0	500,000,000.00					Assistance with transport will be required
Training of community volunteers in Active Case Finding of malnourished in the flood affected areas.	250, 000, 050.00	0	250,000,050.00					
Training in management of severe malnutrition in the flood affected districts both for hospital and community management	300, 000, 050.00	0	300,000,050.00					
Procurement of supplementary and therapeutic feeds (HEPS, F 75 and F100, RUTF) for both malnourished U 5 children and adults	2,823,765,750.60		2,823,765,750.60					Currently what is available in the country is for routine therapeutic services (therapeutic feeding for non-complicated cases
GRAND TOTALS	3,873,765,850.60		3,873,765,850.60					

Target

This plan targets the districts moderately or severely affected by floods. The classification is based on reports sent to DMMU, field reports, key informant interviews and the in-depth vulnerability assessment.

Implementing Agency

The National Food and Nutrition Commission, the Ministry of Health and its various Cooperating partners operating in the field of nutrition sectors will implement this plan.

Annex 4: HUMAN SETTLEMENT AND SHELTER

Problem Statement

During the 2008/09 rainfall season, a number of districts experienced floods which led to the displacement of a number of households.

The vulnerability of the affected households was enhanced by the fact that households were located in the flood prone areas coupled with the weak housing structures due to weak building materials used which are mainly pole, mud and grass.

Although the impact of floods on human settlements was low in terms of the number of households affected, there is need to reduce such vulnerability and the impact of floods by realigning the settlement pattern of low lying areas prone to flooding by relocating them to higher and safer lands.

Furthermore, there is need to sensitize the vulnerable communities on the dangers of settling in flood water channels and the benefits of building better structures on higher and safer lands as a permanent solution.

Activities

1. consultations with local leadership (traditional and district administration) on identification of safer lands
2. acquisition of such safe lands to resettle the communities vulnerable to flooding

3. conduct a survey among the concerned communities to determine their willingness to relocate to higher lands and educate them on possible livelihood sources
4. site preparation of the new settlement
 - a. boundary delineation
 - b. plot demarcation
 - c. road clearing
 - d. borehole drilling
 - e. plot allocation
 - f. resettling of the new settlers

The action plan will be implemented in two phases. The affected districts by order of severity are as follows: -

Phase I

In phase 1, districts along the Zambezi River catchments are targeted. These are

- i. Shangombo'
- ii. Senanga
- iii. Kalabo

Phase II

In this phase, the following districts are targeted;

- i. Mambwe
- ii. Kaoma
- iii. Lukulu

Implementation Agency

- a. The Department of Resettlement in conjunction with the Department of Physical Planning and Housing, UN-HABITAT, IOM, District Councils, Red Cross etc.
- b. DMMU will coordinate the implementation

Financial Requirements: An estimated budget total of ZMKK662, 920,000(US\$136,584.00) will be required to undertake the above alluded to activities in both phases one and two.

Table 9: Human Settlement and Shelter Activity matrix and Budget

Activity Matrix				
	Activity	Resources Required	Resources Available	Resource Gap
A	Identification of Safer Lands for Resettling the Displaced Phase I			
1	Hand Tools	4,800,000		4,800,000
2	Protective Wear	2,300,000		2,300,000
3	Survey and Mapping	5,400,000		5,400,000
4	Printing of Maps	9,500,000		9,500,000
5	Advertisements and Publicity	3,000,000		3,000,000
6	Allowances	51,350,000		51,350,000
7	Petrol Oil and Lubricants	16,000,000		16,000,000
	Toal For Land Identification	92,350,000		92,350,000
B	Identification of Safer Lands for Resettling the Displaced Phase II			
	Allowances	30,000,000	31,000,000	-1,000,000
	Petrol Oil and Lubricants	15,000,000	20,000,000	-5,000,000
	Community Sensitization on Relocation	30,000,000	0	30,000,000
		75,000,000	51,000,000	24,000,000
C	Facilitation of Resettlement of Displaced Persons in phases I and II			
	Road Infrastructure Development in Phases I and II			
	Road Pegging and Clearing	90,000,000	32,107,500	57,892,500
	Road Formation	340,000,000	32,107,500	307,892,500
	Monitoring and Evaluation	30,000,000	10,200,327	19,799,673
	Total For Road Infrastructure Development	460,000,000	74,415,327	385,584,673
D	Water Supply Development in Phases I and II			
	Borehole Tendering	15,000,000	4,000,000	11,000,000
	8 X Boreholes Sitting and Drilling	200,000,000	50,014,673	149,985,327
	Total for Water Supply Development	215,000,000	54,014,673	160,985,327
	Grand Total	842,350,000	179,430,000	662,920,000

Table 10: Human Settlement and Shelter Schedule

ACTIVITY MATRIX	Phase I						Phase II					
	Senanga, Shangombo and Kalabo						Mambwe, Lukulu and Kaoma					
Month	July	Aug	Sep	Oct	Nov	Dec	Apr	May	Jun	Jul	Aug	Sep
Identification of Safer Lands												
Community Sensitization												
Procurement of Hand Tools												
Surveying Area Boundary												
Layout Planning												
Plot Demarcation												
Road Pegging and Clearing												
Road Formation												
Borehole Sitting												
Borehole Drilling												

Annex: 5. INFRASTRUCTURE

Problem Situation:

Road infrastructure, such as embankments, bridges and culverts, were damaged in some parts of the country due to heavy rains. The hardest hit areas are the Eastern, Northern, Western, Lusaka and Copperbelt provinces of the country. This has impacted negatively on the social service delivery and economic development.

Rationale

To develop road infrastructure sector specific inputs to the national response strategy document. Therefore, there is need to carryout urgent reinstatements to the affected road infrastructure in order to restore accessibility to areas affected and ensure that:

- Access to health centers, schools, market places and agricultural areas is restored;
- The much-needed relief supplies are delivered to the affected communities.

Activities

The proposed intervention measures are outlined below:

- Repair and installation of washed away culverts;
- Reinstatement of washed/eroded embankments and stone pitching the embankments;
- Replacement of rotten timber bridges;
- Reinforcing the existing bridge decks;
- Reinstatement of washed away bridges with permanent structures;
- Provision of vented drifts to allow for overtopping; and
- Heavy dredging works using specialized machinery for the clearing and construction of channels.

Target

The target is to reinstate the following 327 road and drainage structures in the 66 districts which experienced severe floods:

- Thirty two (32) Bridges;
- Two hundred and Seventy Three (273) Culverts;
- Seventeen (17) Embankment structures; and
- Five (05) road sections that have experienced severe erosion.

Implementing Agency

- a. Road Development Agency
- b. Zambia National Service
- c. Zambia Army
- d. Rural Roads Unit under Buildings Department.

Financial Requirements: ZMK62,644,546,746(US\$12,528,909.35)

Table 11: Summary of Number Of Structures Assessed

No.	Name of Province	No. of Structures Assessed				Total No. of Structures Assessed	Estimate Cost Reinstatement (ZMK)
		Bridges	Culverts/Drifts	Road Sections	Embankments		
3	Central	1	12	0	0	13	2,670,000,000.00
5	Copperbelt	5	42	0	2	49	5,032,000,000.00
6	Eastern	12	95	0	0	107	18,963,000,000.00
2	Luapula	0	12	0	0	12	2,029,067,546.32
9	Lusaka	0	16	0	0	16	6,370,479,200.00
1	North-Western	6	37	3	5	51	4,581,000,000.00
4	Northern	4	36	0	2	42	10,750,000,000.00
7	Southern	1	15	2	1	19	4,293,000,000.00
8	Western	3	8	0	7	18	7,956,000,000.00
Total		32	273	5	17	327	62,644,546,746.32

Table 12: Infrastructure Activity Costs per Province

No.	Province	Bridges		Culverts/Drifts		Embankment	Overall Cost (ZMK)
		Repairs to Washed Away Bridges (ZMK)	Construction of New Bridge Structures (Permanent) ZMK	Repair Works to Damaged Culverts/Drifts	Installation of New Pipe Culverts/Drifts (ZMK)	Reinstatement of Eroded Embankments & Stone Pitching (ZMK)	
7	Central	200,000,000	-	650,000,000	1,820,000,000	-	2,670,000,000
2	Copperbelt	-	1,360,000,000	960,000,000	2,320,000,000	392,000,000	5,032,000,000
5	Eastern	2,046,000,000	3,350,000,000	1,000,000,000	9,877,000,000	2,690,000,000	18,963,000,000
6	Luapula	-	-	-	2,029,067,546	-	2,029,067,546
8	Lusaka	-	4,902,979,200	-	982,500,000	485,000,000	6,370,479,200
1	North-Western	998,000,000	70,000,000	140,000,000	1,286,000,000	2,087,000,000	4,581,000,000
4	Northern	800,000,000	2,500,000,000	-	5,800,000,000	1,650,000,000	10,750,000,000
3	Southern	1,300,000,000	-	-	1,395,000,000	1,598,000,000	4,293,000,000
9	Western	1,140,000,000	-	-	835,000,000	5,981,000,000	7,956,000,000
Cost Per Activity		6,484,000,000	12,182,979,200	2,750,000,000	26,344,567,546	14,883,000,000	62,644,546,746

Table 13: Infrastructure Activity Matrix

Type of Structure	Activity	Resources Required (ZMK)	Resources Available (ZMK)	GAP (ZMK)
Bridges	Repairs to Washed Away Bridges	6,484,000,000		6,484,000,000
	Construction of New Bridge Structures (Permanent)	12,182,979,200	-	12,182,979,200
Culverts	Repair Works to Damaged Culverts/Drifts	2,750,000,000	-	2,750,000,000
	Installation of New Culverts/Drifts	26,344,567,546	-	26,344,567,546
Embankments	Reinstatement of washed/eroded embankments and stone pitching	14,883,000,000		14,883,000,000
GRAND TOTAL		62,644,546,746	-	62,644,546,746

Total Financial Requirement: ZMK

62,644,546,746

NOTE

The Annual Work Plan 2009 for the RDA allowed for an amount of 5 Billion Kwacha for emergencies which has since been used and exhausted for other major emergencies on the Lusitu Bridge in Lusaka province and reinstatement of culverts on the Chipata Lundazi road in Eastern province

The projects were listed in order of priority from all the districts. The first three were taken as priority 1,2, and 3, if the district had more than three projects the process was repeated for the remaining ones until all projects were classified.

Table 14: Infrastructure Priority Cost List Per Province

No.	Province	Bridges		Culverts/Drifts	Overall Cost (ZMK)
		Priority 1	Priority 2	Priority 3	
7	Central	1,540,000,000	650,000,000	480,000,000	2,670,000,000
2	Copperbelt	3,150,000,000	967,000,000	915,000,000	5,032,000,000
5	Eastern	7,987,000,000	5,510,000,000	5,466,000,000	18,963,000,000
6	Luapula	880,945,722	791,394,716	356,727,109	2,029,067,546
8	Lusaka	2,209,437,600	2,623,172,000	1,537,869,600	6,370,479,200
1	North-Western	1,398,000,000	1,851,000,000	1,332,000,000	4,581,000,000
4	Northern	4,885,000,000	3,090,000,000	2,775,000,000	10,750,000,000
3	Southern	2,044,000,000	1,626,000,000	623,000,000	4,293,000,000
9	Western	5,146,000,000	2,310,000,000	500,000,000	7,956,000,000
Cost Per Activity		29,240,383,322	19,418,566,716	13,985,596,709	62,644,546,746

Table 15 : Infrastructure Implementation Schedule

Activity No.	Activity	2009					2010											
		Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	
1	Repairs to Washed Away Bridges	■	■	■	■													
2	Construction of New Bridge Structures (Permanent)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	Repair Works to Damaged Culverts/Drifts	■	■	■	■													
4	Installation of New Culverts/Drifts	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	Reinstatement of washed/eroded embankments and stone pitching	■	■	■	■													

Annex 6: SOCIAL PROTECTION

Problem statement and rationale

There assessment established that some children and women experienced some form of violence during the floods in the districts visited. Some communities had no prevention measures to violence while others did not have reporting mechanisms in place.

Children and women protection should ideally seek to prevent and put an end to violence, exploitation and abuse against children, women and other vulnerable groups during an emergency. This should be done by strengthening the ability of individuals and families to protect themselves from future threats thereby laying the foundation for lasting security and stability. Individuals and families will only be able protect themselves if all stakeholders and child protection workers endeavor to create a protective environment which will warrant protection in emergency situations.

Activities

The mitigation measures for the Protection sector will include the following:

- Initiate and promote family and community level safety (prevention)
- Capacity building and awareness raising on children's and women's rights
- Psychosocial counseling

All activities will be centered on creating a protective environment for children and their families.

Implementing Agencies

- Ministry of Community Development and Social Services
- Ministry of Local Government and Housing
- Ministry of Health

- Cooperating Partners
- Private Sector
- Non Governmental Organizations

Financial Requirements: 6,725,000,000(US\$1,345,000.00)

Table 16: Social Protection Activity Budget

			Awareness Raising	Capacity Building	Psychosocial	
		Affected Population	Cost	Cost	Cost	Total Cost
Central	Kapiri Mposhi	44567	220,000,000	220,000,000	110,000,000	550,000,000
	Serenge	30618	150,000,000	155,000,000	75,000,000	380,000,000
Eastern	Mambwe	10775	50,000,000	55,000,000	25,000,000	130,000,000
Luapula	Kawambwa	30237	150,000,000	160,000,000	75,000,000	385,000,000
Nothern	Mpika	37622	185,000,000	190,000,000	90,000,000	465,000,000
	Mungwi	28506	140,000,000	150,000,000	75,000,000	365,000,000
	Mporokoso	35566	175,000,000	185,000,000	90,000,000	450,000,000
Noth/Western	Chavuma	6919	35,000,000	35,000,000	25,000,000	95,000,000
	Kabompo	15593	75,000,000	85,000,000	42,500,000	202,500,000
	Kasempa	14425	70,000,000	80,000,000	40,000,000	190,000,000
	Mufumbwe	22661	110,000,000	120,000,000	60,000,000	290,000,000
	Mwinilunga	27456	135,000,000	150,000,000	75,000,000	360,000,000
	Zambezi	13719	65,000,000	75,000,000	37,500,000	177,500,000
Western	Kalabo	28846	140,000,000	150,000,000	75,000,000	365,000,000
	Kaoma	40614	200,000,000	210,000,000	105,000,000	515,000,000
	Lukulu	14360	70,000,000	80,000,000	400,000,000	550,000,000
	Mongu	35956	175,000,000	190,000,000	95,000,000	460,000,000
	Senanga	24106	120,000,000	130,000,000	65,000,000	315,000,000
	Shesheke	18341	90,000,000	100,000,000	50,000,000	240,000,000
	Shangombo	18469	90,000,000	100,000,000	50,000,000	240,000,000
Total		499356	2,445,000,000	2,620,000,000	1,660,000,000	6,725,000,000

Table 17: Social Protection Implementation Schedule 2009 - 2010

Activity	Months											
	Mon 1	Mon 2	Mon 3	Mon 4	Mon 5	Mon 6	Mon 7	Mon 8	Mon 9	Mon 10	Mon 11	Mon 12
Raising Awareness												
Training of Stakeholders and Children												
Delivery Of materials												
Equip Service Delivery Centers												
Formation of Protection Community Committees												
Monitoring of Protection Activities												

Annex 7: WATER AND SANITATION

Problem Statement and Rationale

During the 2008/9 floods, most of the water points (especially unprotected shallow wells) were submerged and some of the walls collapsed. Despite most of the water points being submerged, people have continued to use the same sources because they lack alternative sources. Therefore it is necessary that the damaged water facilities are urgently rehabilitated. Furthermore, the affected communities should be sensitized on water treatment and proper hygiene practices and also provided with chlorine.

Activities

The sector will address household level and community water safety and awareness raising on improved sanitary disposal and hygiene practices. The mitigation measures for Water & Sanitation are as shown in the table below.

SECTOR	ACTIVITY
Water and sanitation	Water and Sanitation
	Provision of safe water to affected communities (Household Chlorine, HTH Chlorine)
	Provision of water (boreholes) and sanitation (latrines) infrastructure (rehabilitation and sinking/digging of new ones)
	Provision of water storage containers, soap and hand washing facilities.
	Improvement of water sources
	Training:
	Hygiene promoters and V-WASHE committees
	Water quality & quantity monitoring, proper usage of home chlorination and HTH, management of water and sanitation facilities and safe excreta disposal.
	Proper garbage handling and disposal
	Monitoring and Evaluation

The activities will include supply of chlorine for treatment of domestic water, granular chlorine for communal water sources and strengthening community sensitization programmes on public health and hygiene, drilling and rehabilitation

of water facilities to ensure access to safe drinking water and promotion of construction of adequate sanitary facilities.

Implementing Agencies

- Ministry of Local Government and Housing
- Ministry of Energy and Water Development
- Cooperating Partners
- Private Sector
- Non Governmental Organizations

Financial Requirements: ZMK 8,379,843,031 (US\$1,675,968.61)

Table 18: Water and Sanitation Activity Budget and Schedule 2009 – 2010 (Requirements by District)

		Affected Population	Water		Sanitation		Water Quality					
			Boreholes with handpumps 10% of need	Total Cost	Ordinary Pit Latrines 10% of need	Total Cost	Chlorine (bottles)	Chlorine cost (K1000/bottle)	Granular Chlorine (HTH) (50Kg)	HTH cost (K800,000/50Kg)	20litre Containers	Container cost (K20,000/container)
Central	Kapiri Mposhi	11,379	5	136,548,000	190	94,825,000	3,793	3,793,000	4	3,034,400	5690	85,342,500
	Serenje	6,419	3	77,028,000	107	53,491,667	2,140	2,139,667	2	1,711,733	3210	48,142,500
Eastern	Mambwe	4,568	2	54,816,000	76	38,066,667	1,523	1,522,667	2	1,218,133	2284	34,260,000
Luapula	Kawambwa	10,253	4	123,036,000	171	85,441,667	3,418	3,417,667	3	2,734,133	5127	76,897,500
Northern	Mporokoso	25,654	10	307,848,000	428	213,783,333	8,551	8,551,333	9	6,841,067	12827	192,405,000
	Mpika	18,159	7	217,908,000	303	151,325,000	6,053	6,053,000	6	4,842,400	9080	136,192,500
	Mungwi	16,466	7	197,592,000	274	137,216,667	5,489	5,488,667	5	4,390,933	8233	123,495,000
North Western	Mufumbwe	5,023	2	60,276,000	84	41,858,333	1,674	1,674,333	2	1,339,467	2512	37,672,500
	Kasempa	1,990	1	23,880,000	33	16,583,333	663	663,333	1	530,667	995	14,925,000
	Kabompo	4,782	2	57,384,000	80	39,850,000	1,594	1,594,000	2	1,275,200	2391	35,865,000
	Chavuma	4,837	2	58,044,000	81	40,308,333	1,612	1,612,333	2	1,289,867	2419	36,277,500
	Mwinilunga	16,757	7	201,084,000	279	139,641,667	5,586	5,585,667	6	4,468,533	8379	125,677,500

	Affected Population	Water		Sanitation		Water Quality					
		Boreholes with handpumps 10% of need	Total Cost	Ordinary Pit Latrines 10% of need	Total Cost	Chlorine (bottles)	Chlorine cost (K1000/bottle)	Granular Chlorine (HTH) (50Kg)	HTH cost (K800,000/50Kg)	20litre Containers	Container cost (K20,000/container)
Zambezi	12,570	5	150,840,000	210	104,750,000	4,190	4,190,000	4	3,352,000	6285	94,275,000
Western	Kaoma	13,178	158,136,000	220	109,816,667	4,393	4,392,667	4	3,514,133	6589	98,835,000
	Kalabo	22,592	271,104,000	377	188,266,667	7,531	7,530,667	8	6,024,533	11296	169,440,000
	Lukulu	8,091	97,092,000	135	67,425,000	2,697	2,697,000	3	2,157,600	4046	60,682,500
	Mongu	13,360	160,320,000	223	111,333,333	4,453	4,453,333	4	3,562,667	6680	100,200,000
	Senanga	17,438	209,256,000	291	145,316,667	5,813	5,812,667	6	4,650,133	8719	130,785,000
	Sesheke	9,809	117,708,000	163	81,741,667	3,270	3,269,667	3	2,615,733	4905	73,567,500
	Shang'ombo	15,122	181,464,000	252	126,016,667	5,041	5,040,667	5	4,032,533	7561	113,415,000
Total	238,447	95	2,861,364,000	3,974	1,987,058,333	79,482	79,482,333	79	63,585,865	119,224	1,788,352,500
Grand Total									6,779,843,031.00		

Additional Budget

Activity	Cost
Rehabilitation of water infrastructure	1,000,000,000
Rehabilitation of sanitation infrastructure	300,000,000
Training and Sensitization	200,000,000
Monitoring and Evaluation	100,000,000
Total	1,600,000,000

The estimated Total Budget for Water and Sanitation for the period (July 2009 to June 2010) is **ZMK 8,379,843,031**

Note: The estimate for chlorine is for **1 month only** thereafter it is hoped that the households will be able to buy the chlorine on their own.

Table 19: Water and Sanitation Activity Schedule

S/N	Activity	Time Frame											
		month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	month 9	month 10	month 11	month 12
1	Training of V-WASHE												
2	Training of hygiene Promoters												
3	Delivery of Materials (containers, chlorine)												
4	Chlorine promotion sensitization												
5	Construction and equipping of boreholes												
6	Construction of Pit Latrines												
7	Rehabilitation of water and sanitation facilities												
8	Monitoring and Evaluation												

Annex: 8: AGRICULTURE AND FOOD SECURITY

AGRICULTURE

Problem statement and rationale

The country has continued to be negatively impacted by floods in the past three rain seasons. Every year the plains flood to some extent, but in late February and first half of March 2009, the extent of floods exceeded the highest water levels ever recorded.

The above normal rains season received led to flooding that left a trail of destruction of field crops, infrastructure and thousands of people and livestock were displaced. Though the in-depth assessment show a marginal increase in crop production at household level, these household have been hit by floods for three consecutive seasons. This means that their production might not sustain them up to the next season hence the need to supplement their household food security through off season crop production.

Floods and/or water logging have exposed the affected population to the risk of outbreak of waterborne diseases and increased the likelihood of animal disease incidences. The damage to crops has contributed to food insecurity problems in some the affected districts. Over the years floods have become a major development challenge because they tend to reverse the development process and livelihood recoveries in the various sectors particularly in agriculture where household asset base have continued to be eroded. Consequently the recovery process have to start all over again, begging for fresh interventions and infrastructure development and rehabilitation. In order to mitigate the impact the floods, government will need to

implement short to medium and long-term interventions in all the sectors identified to have been affected.

ACTIVITIES

The activities will address food insecurity and its related consequences such as malnutrition, morbidity and mortality. In terms of focus, the activities will cover off season crop production and animal health. The required interventions are as summarized in the **activity** matrix (*Refer to table 20 below*).

Implementing Agency: MACO, MCDSS, PAM, FAO

Financial Requirements: ZMK 5,662,747,143(US\$ 1,132,549.43)

Table 20: Agriculture Activity Schedule

Activity	Resources required	Resources available	GAP	Time frame						Comment
				July	August	Sept	Oct	Nov	Dec	
Dry season crop production input support										
Fertiliser	4,445,060,000		4,445,060,000							
Seed	761,830,000		761,830,000							
livestock disease vaccination	500,000,000	387,000,000	113,000,000							
Livestock dipping	600,000,000	257,142,857	342,857,143							
Total	6,306,890,000	644142857	5,662,747,143							

Table 21: Estimated Input Requirements to Enable Targeted Households cultivate 1 Lima of Maize for Off Season Crop production

The Bank of Zambia Foreign Exchange rate used in this document is US\$ 1 = ZMK 5, 000.

Note: The column of total requirement represents the actual gap (available resources already considered before arriving at the gap)

Name of District	Pop 2008	Est HHs#	HHs targeted 30%	Area (Ha)	Seed (MT) @20Kg/Ha	D comp (MT)@.2MT/Ha	Urea (MT) @.2MT/Ha	Seed cost @ 1600 U\$/MT	D Comp@ U\$ 877/MT	Urea @ U\$ 877/MT
Chavuma										
Chiyeke Kakoma	7,270	1,212	364	91	1.818	18.2	18.2	2,908	15,939	15,939
Kalombo Kamusamba	4,247	708	212	53	1.062	10.6	10.6	1,699	9,312	9,312
Kambuya Mukelangombe	1,395	233	70	17	0.349	3.5	3.5	558	3,059	3,059
Kanyinda Likundu	911	152	46	11	0.228	2.3	2.3	364	1,997	1,997
Nguvu	1,161	194	58	15	0.290	2.9	2.9	464	2,545	2,545
Nyantanda Nyamingila	2,475	413	743	186	3.713	37.1	37.1	5,940	32,559	32,559
								11,934	65,411	65,411
Zambezi										
Mpidi Kakonga	6,930	1,155	347	87	1.733	17.3	17.3	2,772	15,194	15,194
Likungu	3,013	502	151	38	0.753	7.5	7.5	1,205	6,606	6,606
Mapachi Chinyingi	8,435	1,406	422	105	2.109	21.1	21.1	3,374	18,494	18,494
Matondo Nyachikanji	3,991	665	200	50	0.998	10.0	10.0	1,596	8,750	8,750
Muyembe Liyoyu	5,790	965	290	72	1.448	14.5	14.5	2,316	12,695	12,695
Mwange Nyawanda	2,599	433	130	32	0.650	6.5	6.5	1,040	5,698	5,698
								12,303	67,437	67,437
Mwinilunga										
Nthambu	9,442	1,574	472	118	2.361	23.6	23.6	3,777	20,702	20,702
Kamapanga	8,929	1,488	446	112	2.232	22.3	22.3	3,572	19,577	19,577
Chana Chamuhinga	3,708	618	185	46	0.927	9.3	9.3	1,483	8,130	8,130
Kanyama	10,814	1,802	541	135	2.704	27.0	27.0	4,326	23,710	23,710
								13,157	72,118	72,118

Name of District	Pop 2008	Est HHs#	HHs targeted 30%	Area (Ha)	Seed (MT) @20Kg/Ha	D comp (MT)@.2MT/Ha	Urea (MT) @.2MT/Ha	Seed cost @ 1600 U\$/MT	D Comp@ U\$ 877/MT	Urea @ U\$ 877/MT
Lukulu										
Mbanga	4,818	803	241	60	1.205	12.0	12.0	1,927	10,563	10,563
Mwito	6,653	1,109	333	83	1.663	16.6	16.6	2,661	14,587	14,587
Kang'oti	4,711	785	236	59	1.178	11.8	11.8	1,884	10,329	10,329
Dongwe	2,573	429	129	32	0.643	6.4	6.4	1,029	5,641	5,641
Kaway	2,357	393	118	29	0.589	5.9	5.9	943	5,168	5,168
Kashizhi	6,042	1,007	302	76	1.511	15.1	15.1	2,417	13,247	13,247
Lutembwe	2,666	444	133	33	0.667	6.7	6.7	1,066	5,845	5,845
Mitete	3,580	597	179	45	0.895	9.0	9.0	1,432	7,849	7,849
Nyaala	6,418	1,070	321	80	1.605	16.0	16.0	2,567	14,071	14,071
Mwandi	2,760	460	138	35	0.690	6.9	6.9	1,104	6,051	6,051
Likapai	699	117	35	9	0.175	1.7	1.7	280	1,533	1,533
Luanchuama	1,500	250	75	19	0.375	3.8	3.8	600	3,289	3,289
Matala	395	66	20	5	0.099	1.0	1.0	158	866	866
								18,069	99,040	99,040
Senanga										
Lyamakamba	5,155	859	258	64	1.289	12.9	12.9	2,062	11,302	11,302
Silwana	7,443	1,241	372	93	1.861	18.6	18.6	2,977	16,319	16,319
Shekela	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Makoka	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Kambayi	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Kataba	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Muoyo	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Nangucha	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Mwana Mbuya	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Imatongo	5,757	960	288	72	1.439	14.4	14.4	2,303	12,622	12,622
Imatanda	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Wanyau	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Lipuwe	1,324	221	66	17	0.331	3.3	3.3	530	2,903	2,903
Naluywa	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Lumbe	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
Sibuli	1,324	221	66	17	0.331	3.3	3.3	530	2,903	2,903
Maata	1,353	226	68	17	0.338	3.4	3.4	541	2,966	2,966
								14,896	81,647	81,647

Name of District	Pop 2008	Est HHs#	HHs targeted 30%	Area (Ha)	Seed (MT) @20Kg/Ha	D comp (MT)@.2MT/Ha	Urea (MT) @.2MT/Ha	Seed cost @ 1600 U\$/MT	D Comp@ U\$ 877/MT	Urea @ U\$ 877/MT
Mongu										
Mbekise	1,214	202	61	15	0.304	3.0	3.0	486	2,662	2,662
Nakanya	1,938	323	97	24	0.485	4.8	4.8	775	4,249	4,249
Imalyo	1,307	218	65	16	0.327	3.3	3.3	523	2,866	2,866
Ndanda	3,310	552	166	41	0.828	8.3	8.3	1,324	7,257	7,257
Nakato	1,347	224.5	67.35	16.8	0.337	3.4	3.4	539	2,953	2,953
Yeta	1,941	324	97	24	0.485	4.9	4.9	776	4,256	4,256
Katongo	2,118	353	106	26	0.530	5.3	5.3	847	4,644	4,644
Mabungu	958	160	48	12	0.240	2.4	2.4	383	2,100	2,100
Mabili	533	89	27	7	0.133	1.3	1.3	213	1,169	1,169
Lealui	2,474	412	124	31	0.619	6.2	6.2	990	5,424	5,424
Lumbo	1,743	291	87	22	0.436	4.4	4.4	697	3,822	3,822
Kama	1,456	243	73	18	0.364	3.6	3.6	582	3,192	3,192
Namengo	1,456	243	73	18	0.364	3.6	3.6	582	3,192	3,192
Limulunga	2,975	496	149	37	0.744	7.4	7.4	1,190	6,523	6,523
Nang'oko	1,456	243	73	18	0.364	3.6	3.6	582	3,192	3,192
Ushaa	1,493	249	75	19	0.373	3.7	3.7	597	3,273	3,273
Namushakende	1,405	234	70	18	0.351	3.5	3.5	562	3,080	3,080
Total					51.26	512.6	512.6	82,008	63,854	63,854
TOTAL					51 MT	506 MT	506 MT	152,366	449,506	449,506

Cost of Transportation

ZMK 1,051,380,000.00 (US\$ 210,276)

TOTAL COST OF OFF SEASON CROP PRODUCTION PROGRAMME

ZMK 5,206,890,000.00 (US\$ 1,041,378.00)

Notes:

The two provinces require early maturing maize seed varieties:

- Option 1. Preferred DACOs - MMV 441, or SC 504, SC 514
- Option 2. Sustainability considerations especially under low fertilizer availability; ZM 421 or ZM 521, i.e. low Nitrogen requirement varieties

Early delivery of inputs separates success or failure

High operational support costs for input delivery in Western and NW provinces

RELIEF FOOD

Problem Statement and Rationale

The floods of 2008/09 season have had a negative impact on the lives of affected communities. According to the In- depth Vulnerability and Needs Assessment on the impact of floods and/or prolonged dry spells conducted by the VAC in 2009, heavy rains and floods have severely affected small scale farmers' crops in 7 districts namely; Chavuma, Kabompo, Mporokoso, Mungwi, Mwinilunga, Serenje and Zambezi.

Considering the negative impact of excessive rains and floods on the seven districts, there is need to urgently address the resultant problems with specific interventions that will mitigate the effects of loss of crops, food and assets of the affected households. Interventions that include relief food, provision of agricultural inputs and vaccinating livestock will help address the core problems in the short, medium to long term.

Activities

The following three activities should be undertaken to mitigate the negative impact of heavy rains and floods on food security in the severely affected districts mentioned above. These activities are procurement, transportation and distribution of relief food

Target

A total of 110, 651 people (18,442 households) in seven (7) affected districts mentioned above will be targeted for relief food amounting to 8,295.5 MTs.

Implementing Agencies

Office of the Vice President as well as relevant NGOs and cooperating partners.

Financial Requirements

A total of K17, 143,190,104.00(US\$3,428,638.02) will be needed to implement the activities as reflected in the activity matrix below:

Table 22: Food Relief Activity Matrix

ACTIVITY	RESOURCE REQUIREMENT (ZmK)	RESOURCES AVAILABLE (ZmK)	GAP (ZmK)
1. Procurement of 8,295.5 MTs of Relief food	10,784,124,000.00	0	10,784,124,000.00
2. Transportation of 8,295.5 MTs of Relief food	2,657,208,154.00	0	2,657,208,154.00
3. Distribution of 8,295.5 MTs of Relief of food	3,701,857,950.00	0	3,701,857,950.00
Sector Total	17,143,190,104.00		17,143,190,104.00

Total Cost Under Agriculture And Food Security: ZMK 22,805,937,247.00
(US\$4,561,187.45)