GENERAL NOTICE

NOTICE 749 OF 2012

SECTORAL DISASTER RISK MANAGEMENT PLAN

The Minister of Agriculture, Forestry and Fisheries hereby publishes the Sectoral Disaster Risk Management Plan, 2012 in the schedule hereto, for public comment.

Members of the public are invited to submit to the Minister, within 30 days of publication of the notice in the *Gazette*, written comments to the following addresses:

By post to: The Director-General: Agriculture, Forestry and Fisheries
Attention: Mr Ikalafeng Ben Kgakatsi
Private Bag X250
Pretoria, 0001

By fax to: (012) 319 6711, and by e-mail to DavidMa@daff.gov.za, MittaA@daff.gov.za or EnosM@daff.gov.za

Hand delivered at: 20 Steve Biko Street, Pretoria, Agriculture Place.

Any enquiries in connection with the Sectoral Disaster Risk Management Plan, 2012 can be directed to Mr. Enos Molatelo Mamadi at (012) 319 7064/7956 or Mr. David Kapei Makate at (012) 319 6670/7956.

Comments received after the closing may not be considered.

agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

SECTORAL DISASTER RISK MANAGEMENT PLAN (SDRMP)

2012

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1. LIST OF ACRONYMS

The following abbreviations and acronyms used throughout this document mean the following:

1.1. **ARC** Agricultural Research Council.

1.2. **DAFF** Department of Agriculture, Forestry and Fisheries.

1.3. **DEWA** Department of Environment and Water Affairs.

1.4. **DCoG** Department of Cooperative Governance.

1.5. **EWC** Early Warning Committee.

1.6. **GDP** Gross Domestic Product.

1.7. **HSRC** Human Science Research Council.

1.8. **IDP** Integrated Development Plan.

1.9. **IPCC** Inter-Governmental Panel on Climate Change.

1.10. **KPA** Key Performance Area.

1.11. **LIMP** Limpopo Province.

1.12. **MEC** Member of Executive Committee.

1.13. **MP** Mpumalanga.

1.14. **NAC** National Agro-Meteorological Committee.

1.15. **SDMF** Sectoral Disaster Management Forum.

1.16. **NCCC** National Committee on Climate Change.

1.17. **NDMC** National Disaster Management Centre.

1.18. **NDRMF** National Disaster Risk Management Framework.

1.19. **NGO** Non-Governmental Organization.

1.20. **NW** North West Province.

1.21. **OA** Organized Agriculture.

1.22. **PDA** Provincial Department of Agriculture.

1.23. **SAWS** South African Weather Services.

1.24. **SDRMCO** Sectoral Disaster Risk Management Committee.

1.25. **SDRMP** Sectoral Disaster Risk Management Plan.

GLOSSARY OF TERMS

2.1. **"Disaster"** means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to and destruction of property, or damage to and degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

2.2. **"Community"** means the smallest social grouping in a country with an effective social structure and potential administrative capacity.

2.3. **"Disaster Management"** means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for prevention of danger or threat of any disaster; mitigation or reduction of risk of any disaster or its severity or consequences; capacity building; preparedness to deal with any disaster; prompt response to any threatening disaster situation or disaster; assessing the severity or magnitude of effects of any disaster; relief; and rehabilitation and reconstruction.

2.4. **"Disaster risk reduction"** means the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout society, to

avoid (prevent) or limit (mitigate and be prepared for) the adverse impact of hazards, within the broad context of sustainable development.

2.5. **"Emergencies"** means situations that arise out of disasters, in which the affected community's ability to cope has been overwhelmed, and where rapid and effective action is required to prevent further loss of property, life and livelihood.

2.6. **"Emergency preparedness"** means a programme of long-term development activities whose goals are to strengthen the overall capacity and capability of a country to manage efficiently all types of emergency and to bring about an orderly transition from relief through recovery and back to sustained development.

2.7. **"Hazard"** means a threatening event or the probability of occurrence of a potentially damaging phenomenon (e.g. veld fire, drought or a flood) within a given time period and area.

2.8. **"Local Authority" means** traditional institutions such as structures, municipalities, a district board, town planning authority or any other body or authority for rendering essential services or, with the control & management of civic services, within a specified local area.

2.9. **"Prevention"** means actions aimed at reducing or eliminating the impact of future hazard events, by avoiding the hazard or strengthening resistance to it.

2.10. **"Mitigation"** means measures aimed at reducing the risk, impact or effects of a disaster or threatening disaster situation.

2.11. **"Preparedness"** means the state of readiness to deal with a threatening disaster situation or disaster and the impacts thereof.

2.12. **"Recovery"** means decisions and actions taken after a disaster with a view to restoring living conditions of the stricken community, while encouraging and facilitating adjustments to reduce disaster risk.

2.13. **"Relief/response"** means the provision of assistance and/or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those affected.

2.14. **"Resilience"** means the capacity of a system to tolerate perturbation or disturbances without collapsing into a qualitatively different state, to withstand shock and rebuild when necessary.

2.15. **"Risk"** means the exposure to vulnerable conditions, damage to property and disruption of economic activity due to a particular natural phenomenon.

2.16. **"Risk Assessment"** means the determination of the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods, and the environment.

2.17. **"Risk Management"** means the systematic process of using administrative decisions, Organisation, operational skills, and capacities to implement policies, strategies, and coping capacity of the society and communities to lessen the impact of hazards.

2.18. **"Susceptibility"** means the factors operating in a community that encourage a hazard (disaster), e.g. proximity to hazard, or level of development.

2.19. **"Vulnerability"** means the degree to which a population or an individual is unable to anticipate, cope with, resist and recover from the impacts of disasters. It is a function of susceptibility and resilience.

2.20. **"Vulnerability reduction"** means steps taken to reduce people's exposure to hazards and increase their capacity to survive and recover from disasters.

3. INTRODUCTION

3.1 Disasters, both creeping and sudden unleash a range of impacts that include primary and various third-order impacts. Over the past 15 years, natural disasters (cold spells, drought, floods, and fires) have cost Government in the region of R6.5 Billion. Animal disease outbreaks, migratory birds and locust infestations were not accounted for in this figure, which also run into millions of rands. Government needs an innovative approach for this challenge to stop the trend.

3.2 Economic losses as a result of disease outbreaks, floods and drought episodes between 1990s and 2006 were higher in real terms than in the 1970s. The maize price market crash registered in the year 2005 is yet another indicator of the risk exposure that the country faces. New challenges are posed by new disease outbreaks that demand research to effectively deal with them. Dry spells (drought) have become a regular feature of our climate across the country

especially in Limpopo, Northern and Eastern Cape and the central parts of the Western Cape. The 2000 floods that ravaged the Northern parts of the country i.e. NW, Limp, and MP and Mozambique is also a case in point. Global warming, which is likely to create many more extreme weather events could push economic losses even steeper within few years.

3.3 A disaster takes place when a society or community is affected by a hazard. It is usually defined as an event that overwhelms a society's capacity to cope with their resources alone. The impact of the disaster is heavily influenced by the degree of the community's vulnerability to the hazard. The vulnerabilities result from the whole range of economic, social, cultural, institutional, political, environmental and even psychological factors that shape people's lives, and create the environment that they live in. Extensive research over the past years has shown that, in general, it is the weaker groups in society that suffer worst from disasters and those who are marginalized along racial lines.

3.4 The complexity of disaster assessments, the limitations of current data systems, changing impacts and responses from complex biophysical, socio-economic and cultural settings or cases must be captured and understood. These hazards result in short-term and longer-term impacts that can be particularly costly and devastating. The recent damages and losses from the Tsunami in Asia and the losses incurred from Hurricane Katrina al highlight the height of losses and costs that can arise from a disaster.

3.5 For a country such as South Africa, effective disaster-risk reduction and management can and should be coupled with development, including proactive and sustainable ways of reducing risks. It has been estimated, for example, that one-rand invested in prevention/mitigation saves R7.00 in relief and recovery. Due to the multi-sectoral character of disasters, disaster-loss information is rarely consolidated across sectors or administrative spheres. Relevant data are also usually not well captured, structured or catalogued. The Report on a Pilot Study on the Socio –economic Impacts of Disasters in South Africa (1994 – 2004) by the HSRC, outlines some of the requirements for undertaking a long-term inventory of disaster losses, economic sensitivity to disasters and some of the development implications for South Africa. A much more detailed assessment by provinces should be undertaken.

3.6 The White Paper on Disaster Management, 1999 articulates the primary responsibility of the Government in relation to disaster risk management as laid down in Section 41(1)(b) of the Constitution of the Republic of South Africa, 1996 (Act No.108 of 1996), namely that al spheres of Government are required to "secure the well-being of the people of the Republic".

3.7 From the White Paper on Disaster Management 1999, the Disaster Management Act, 2002 (Act No. 57 of 2002) was promulgated. Part 2 of the Act and more specifically Section 25(1) provides for an obligation on all national organs of state to prepare disaster risk management plans according to the national framework and guidelines laid down by the NDMC. The DAFF prepared the SDRMP in which the scope, objectives, management issues and other elements are outlined. The SDRMP aims to achieve the following objectives: prevention and reduction of disaster risks; mitigation of impacts; preparedness for effective response to disasters, minimize loss and property damage; and quick recovery from the impacts. The plan articulates actions to prevent and mitigate natural disasters and how risk reduction measures are dealt with in the long-term and managing emergencies in the shorter term, including aspects of preparedness, response and recovery. Provision is also made for the periodic reviews and updates of the plans. Particular attention is paid to ensure synergies to avoid overlaps between the DAFF and various activities at Provincial and Local Government levels and other Government Departments. The SDRMP is mindful of the IDP processes and other initiatives posed by these and other management plans.

3.8 The SDRMP has been formulated taking into account the following principles:

3.8.1 The identification of the problem associated with disaster risks as part of government responsibility to ensure the best possible arrangements with available resources.

3.8.2 The adoption of al hazards and people-centered approach to sectoral disaster risk management.

3.8.3 The recognition of disaster risk and vulnerability reduction as essential for sustainable development planning.

3.8.4 The linkage with various levels of government and farming communities.

3.8.5 The development of an attitude of self-help within the community through ongoing education and awareness programmes.

3.8.6 Disaster Risk Reduction through appropriate research plans

3.9 The involvement of communities is vital so that they become the driving forces of their own development. Community involvement serves in two-fold, namely informs, educates and creates public awareness and encourages participation for policy buy-in.

4. PURPOSE AND STRATEGIC OBJECTIVES

4.1 The strategic objectives of the plan

4.1.1 Disaster risk reduction in the sector.

4.1.2 Strengthening capacity to provide effective emergency response when disasters occur, for combating poverty and promoting sustainable development in the country.

4.1.3 Advocating an approach for disaster risk reduction that focuses on the economic loss and damage to property, especially to the population most vulnerable due to poverty and a general lack of resources.

4.1.4 Protection of the environment (natural resources).

4.1.5 A shared responsibility with stakeholders on awareness to be created in order to minimize risks in the sector.

4.2 The purpose of this plan

4.1.1 Provide an enabling environment for disaster risk reduction through proactive programmes.

4.1.2 Improve South Africa's ability or capacity to manage disaster emergencies and their consequences in a coordinated, efficient and effective manner by creating partnerships among diverse of stakeholders and cooperative relations between the spheres of government.

4.1.3 Ensure adequate financial arrangements to address hazard risks and commit government at al levels to allocate sufficient funds to provide for risk reduction and emergencies.

4.1.4 Promote disaster risk training and public awareness as well as strengthening roles of traditional leaders and local authorities. Increase political awareness on disaster risk reduction and mainstream the media in public education and awareness.

4.1.5 Consultation with national and international partners for formulating exchange programmes for training, education and capacity building in disaster risk reduction.

4.1.6 Improve risk identification, assessment (pre- and post-disaster) and hazard monitoring, vulnerabilities and capacities to respond. There is a need to improve communication and information exchange amongst stakeholders in risk identification and assessment.

4.1.7 Set up and strengthen early warning systems in institutions and implement research plans and programmes.

4.1.8 Encourage public participation in planning and implementing disaster risk reduction interventions.

4.1.9 Implement recovery and rehabilitation programmes to sustainable activities in the sector.

4.1.10 Develop and implement Implementation Programmes.

5. SECTORAL DISASTER RISK MANAGEMENT IN SOUTH AFRICA

5.1 Background

5.1.1 Disasters and their impacts in South Africa are increasing at an alarming rate. To put the Principles of this broad sectoral disaster risk management plan into perspective, it is essential to articulate on the change in approach from reactive to proactive. Internationally, the field of sectoral disaster risk management has moved from a reactive disaster management to a proactive disaster risk reduction approach. Thus, while emergency response is still an essential part of sectoral disaster risk management, the need to adopt a long-term, and risk-reduction approach has emerged as central in sectoral disaster risk management, a link with disaster risk reduction in long-term development plans.

5.1.2 Natural disasters are caused by natural hazards such as floods, drought, wildfires, animal diseases, cold spells, and migratory pests. These hazards must be managed to prevent them from escalating out of proportions thereby causing disasters. The frequencies of natural disasters are expected to increase with an increase in climate change impacts worldwide which will negatively impact on production.

5.1.3 Many natural disasters taking place annually in South Africa are often caused by weather-related phenomena and impact on all sectors and especially agriculture. Natural disasters manifest as hazards (natural or human-made) exacerbating vulnerable conditions and exceeding farming communities' capacity to cope. Natural disasters pose a major threat to sustainable development and must be addressed.

5.1.4 Previously, disaster management's focus was on post-disaster relief and uncoordinated response and recovery. Similar responses to natural disasters such as drought, cold spells, veld fires, epidemics, floods, etc. can be tracked even today. There were several financial aid schemes to assist the affected in the event of natural disasters but were and helped foster a 'dependency' on government intervention. Although valuable information on Early Warning Systems is available, the application thereof is patchy and ineffective.

5.1.5 Farmers' increased vulnerabilities are induced by the absence of mitigation or preventative measures in development planning and environmental degradation due to poor land use, deforestation, over cultivation, and overgrazing. These practices make the land more susceptible to natural disasters. Sectoral disaster risk management therefore aims to reduce or prevent the potential losses from hazards, assure prompt and appropriate assistance to victims and achieve rapid and effective recovery.

5.2 Disaster impacts

5.2.1 Disasters have deleterious effects on the economy, social and environmental development. Natural disasters have cost billions in monetary terms and unparalleled social difficulties in the past few decades. Although government is assisting victims, the social damages run much deeper because a huge percentage of victims are still exposed to the same hazards or vulnerabilities expecting relief when disasters occur.

5.2.2 As a developing economy, agriculture is one of the important contributors to South Africa's GDP. Globalization of markets, rapid technological change, expansion of regulations and environmental pressures created a variety of farmer risks in their farm operations. Since prices of commodities are mainly determined in global markets, unanticipated changes in global demand or supply of commodities may lead to unexpected risks (changes) in the prices received by farmers for their products. Natural hazards thus have a considerable economic impact on South Africa's development. The significant impacts of natural disasters place South Africa among the world's vulnerable countries.

5.2.3 Natural disasters affect aquatic ecosystems through changes in water runoff, nutrients, sedimentation, riparian and in-stream vegetation and the types of aquatic organisms present. Human activities that contribute to deforestation, land degradation and global warming not only result in huge losses to the environment, but also increase the vulnerability of the environment to disasters and alter the resilience of the Natural habitats by reducing their abilities to recover effectively from damage. During and after the disasters, communities and households are usually displaced and traumatized due to losses incurred, the loss of their livelihood and employment.

5.2.4 Due to high incidents of natural disasters and their impacts experienced in South Africa, there is a need for an effective system for preparedness, extreme weather prediction, damage assessment and rehabilitation that ensures coordinated efforts and effective institutional support at all levels of government, private sector, Organized Agriculture, Non-governmental Organizations (NGO) and local farming communities.

6. SECTORAL DISASTER RISK MANAGEMENT CHALLENGES

6.1 Disaster risk reduction strategies.

6.1.1 Sectoral disaster risk management activities were poorly coordinated in the past with no reference or guidelines in place. There were no comprehensive strategies and programmes or coherent and coordinated response when disasters occur. There were huge differences in the setting of standards for formal and informal sectoral disaster risk management due to the lack of national guidelines or standards. The disaster management system has been based on post-disaster recovery. The promulgation of the Disaster Management Act 2002 (Act No. 57 of 2002) turned the situation around with the introduction of disaster risk management contingency plans, across all spheres of government. Despite the Disaster Management Act, these contingency plans must also be aligned with the Conservation of Agricultural Resources Act (Act No. 43 of 1983); the Agricultural Pests Act (Act No.36 of 1983); Animal Identification Act (Act No.6 of 2002; Animal Diseases Act (Act 35 of 1984); the Livestock Brands Act(Act No.87 of 1962); the Fencing Act (Act No.31 of 1963), the National Veld and Forest fire Act, 1998 (Act No. 101 of 1998); and the National Environmental Management Act (Act No. 107 of 1998).

6.2 Poverty

There has been growing correlation and linkages between poverty and vulnerabilities to natural disasters. As the poor exploit environmental resources for survival, risks increase proportionately. Poor communities use mainly natural resources as their livelihood strategies. While securing their livelihoods and food security, these communities exhaust non-renewable resources thereby increasing their susceptibility to hazards especially in communal settings. A challenge posed under the circumstances is the overcrowding in pristine areas (marginal areas of concern) hence escalating the footprint on the environment. Traditional authorities are owners of the land and individual communal farmers are stripped of the power and authority to make individual decisions to manage natural resources. With poverty rife in these communities, mitigation measures such as reducing livestock during drought are difficult to enforce for they are faced with land shortages. Land in these areas is a very sensitive and emotive issue coupled with a deeply entrenched belief to keep livestock for pride instead of business ventures.

6.3 State intervention.

The criteria for State intervention will be clearly defined in each contingency plan. Previous criteria for State intervention were based on the magnitudes of the events instead of the needs of communities affected. Current interventions are mainly decided at a political level through disaster declarations (in terms of sections 27; 41; and 55 of the Disaster Management Act for national, provincial and local respectively) and resource allocations. These criteria have to be radically reviewed to introduce innovative ways for beneficiaries. Natural disasters should be analyzed in terms of duration and severity, with special reference to those communities most vulnerable and most affected. The Government will draw guidelines on thresholds for each hazard to determine the right time to intervene. An on-going intervention may take the form of mainstreaming awareness campaigns, early warning systems, and research and mitigation measures.

6.4 Information management, communication and awareness.

6.4.1 Effective disaster risk reduction requires disseminating the right information to the right place at the right time, thus minimizing lead-time response to incidents. There are currently insufficient information management systems within the government sector and a plan for quality data acquisition, integration and quality. While the quality of disaster risk forecasts and warnings have improved in the recent past, its application on the ground level is relatively poor. Most farming communities potentially affected by the

hazards either do not have access or do not understand the hazard forecasts. Information dissemination at the provincial and local level needs more attention to flush out bottlenecks that impedes receipt of early warning information. This will be addressed by a way of Information Management System developed by DAFF.

6.4.2 Risk awareness on the other hand leaves much room for improvement to target the right audience. Provincial Departments of Agriculture and Local Governments must intensify risk awareness programmes to achieve the strategic objectives of this plan. The sectoral disaster risk management focus is increasingly moving towards effective utilization of emerging technologies such as remote sensing, geographic information system, and satellite to monitor, asses, and prepare for and mitigate potential impacts.

6.5 Management planning and institutional support.

6.5.1 To succeed in mitigating hazards, the Department of Agriculture, Forestry and Fisheries should strengthen, promote and prioritize organisational disaster risk management function.

6.5.2 While prevention, preparation, detection and assessment of disasters take place in stationary environments, reaction on emergencies requires immediate coordination of task teams dispatched on location of enquiry. An important challenge is the efficient utilization of personnel resources with respect to where, when and which resources are assigned to which tasks. The problem lies in resource scheduling and allocation with respect to the tasks, priorities and mutual dependencies. This is the result of insufficient supervision of the task teams' progress to update the resource planning with their assignment. This was noticeable during the disastrous drought of the 1980s and 1990s, 2003-2005 and 2007, the veld fires of 2007 in Mpumalanga Kwa-Zulu Natal and parts of Limpopo, the 2000 floods (that ravaged the Northern parts of the country) and the 2007 floods in the Western and Eastern cape, cold spells and fires of 2001 and 2003, that revealed significant weaknesses in the ability of government institutions to respond timely and effectively to disasters. The absence of a comprehensive sectoral disaster risk management plan to manage the disaster risks compounded these problems. The establishment of the disaster risk management units in the provinces and the establishment of relevant disaster risk management committees in all spheres of government will address the issues of resource scheduling and allocation.

6.6 Research.

Research on disaster risk area is slowly taking shape although with pockets of challenges at times. The literature on disaster risk management research in general indicates inadequate information because disaster risk management is a fairly new concept. Greater investment in research has a significant potential for high ratios of benefit to cost. Disaster risk research allows for continuous improvement through testing and analysis. Lessons learnt from post-disaster assessment and disaster risk reduction exercises can also contribute to the identification of best disaster management practices. Funding research, expertise in risk reduction and scale of research in this area, need immediate intervention. Substantial financial resource investment in research is paramount for robust research initiatives to take effect. There are few research experts in this area for Government to tap on for widening risk management knowledge base. The NDMF of 2005 will address the insufficient availability of research experts in disaster risk management.

6.7 Climate Change.

6.7.1 Climate change is one of the most important global environmental challenges faced by humanity today, especially in agriculture. Natural hazards occur at their natural pace but with climate change on the rise, may be exacerbated to exceed current capacities to deal with them. According to the IPCC Fourth Assessment Report (2007), climate change is expected to increase the severity and frequency of weather-related natural hazards. These include but not limited to floods, droughts and heat-waves. Climate change may lead to more disasters in future unless prompt action is taken now. This will result in farming, fishing, forestry and other industries negatively affected.

6.7.2 Human activities that contribute to climate change not only result in huge losses to the environment, but also increase the vulnerability of the environment to disasters and alter the resilience of the natural environment by reducing the ability to recover completely from damage. Partnerships (cost sharing) with regional and international Governments as well as private organizations in climate change research may offset huge investment costs required in this area. With the knowledge base gaining momentum both locally and internationally, future impacts may be dramatically reduced by appropriately targeted programmes.

7. THE SCOPE OF DISASTER RISK MANAGEMENT PLAN FOR THE SECTOR

7.1 South Africa is a country facing recurring hazards and a variety of risks. This plan is confined to sector-related disasters and how each of the hazards will be dealt with – animal diseases, migratory pests, markets, drought, fires, floods and cold spell. The plan will encompass a variety of issues namely:

7.1.1 Develop an adequate, reliable and readily accessible early warning system essential to assist policy makers and other players to improve capacity response and information dissemination.

7.1.2 Develop post-disaster recovery and rehabilitation programmes and stepping up institutional support and integration which constitute the core strategy.

7.1.3 Mainstream principles of prevention, mitigation, assessment, preparedness and reduction to take a center stage in building disaster resilience and capacity for response, recovery and rehabilitation.

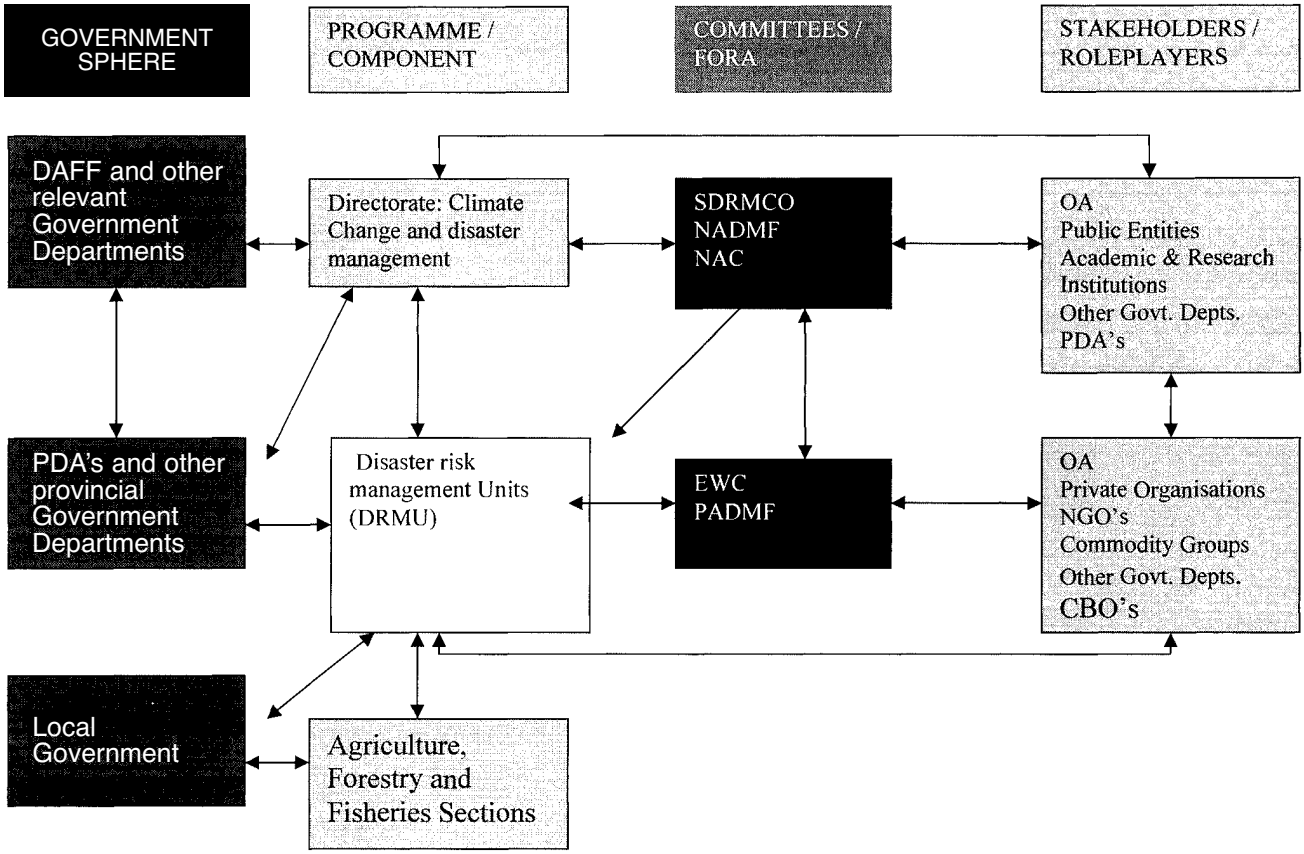
7.1.4 Strengthen information management and dissemination, education and public awareness will be at the cutting edge to build capacity among farming communities.

8. THE CONCEPT AND PRINCIPLES APPLIED IN THE FUNCTIONAL AREA

In fulfilling the requirements for the Disaster Management Act, 2002 (Act No. 57 of 2002), the DAFF used the Disaster Management Act, 2002 (Act No. 57 of 2002) and the National Disaster Management Framework of 2005 (NDMF) as the basis for developing the plan. The SDRMP therefore mirrors the above-mentioned legal requirements as follows:

8.1 Integrated institutional capacity for disaster risk reduction

Fig. 8.1 Institutional arrangements



8.1.1 Sectoral disaster risk reduction policies implementation starts with political will and administrative commitment for the coordination of various national, provincial and local governments as well as institutions and their participation in policy-making. Warnings are based on technical information and monitoring of such, but requires institutional capacity and support to act on warnings. The most critical and immediate response to natural disasters depends on authorities in al spheres of government and institutions at various levels to mobilize resources when needed. Provincial and Local Government, private institutions and farming communities must be empowered to participate in the entire policy making process to be fully aware and prepared to respond. Figure 6.1 above reflects the position of role players and their relationships in the process. For proper planning and preparedness all role players need to adopt an integrated approach in addressing disasters by allocating roles and responsibilities before disasters occur.

8.1.2 Establishing innovative formal and informal structures that encourage risk prevention is the all-encompassing strategy supporting the plan. DAFF must capacitate and provide resources (financial and human) to the Disaster Risk functions and facilitates the establishment of EWC, Provincial and Local Sectoral disaster risk management Fora, Disaster Risk Management Units within the PDA's for the dissemination of information (advisories) and execution of disaster risk reduction functions and responsibilities. At DAFF, three committees will be established, namely the Sectoral disaster risk management Committee, Sectoral Disaster Management Forum and National Agro-Meteorological Committee (see figure 8.1 above)

8.1.3 Strengthening institutional synergies within government and private sector with clear roles and responsibilities is essential. This implies the decentralization in the decision-making processes. The benefits that accrue from these interactions include improved efficiency, credibility, accountability, trust, cost-effectiveness, and lessening duplication of efforts.

8.2 Disaster risk assessment

8.2.1 DAFF will strengthen the early warning system to ensure that all its elements are effective i.e. prior risk knowledge, monitoring and warning service, dissemination and communication and response capacity. DAFF will ensure risk assessment by mapping natural hazards and conducting vulnerability assessments of the farming communities through the effective early warning system. Furthermore, private companies and research institutions may conduct risk assessments on behalf of government to maintain and update a national disaster risk profile. Disaster risk assessment reports will guide disaster risk reduction initiatives through policy development and implementation. Disaster risk assessment reports will be further synchronized with the planning and execution of the departmental programmes and projects. Monitoring and evaluation of the early warning system will be conducted continuously to inform ongoing disaster risk for assessment, analysis, reporting and planning.

8.2.2 DAFF will set programmes in motion to evaluate and monitor hazards in the provinces all year round to obtain reports on the prevailing conditions. Government, private companies and research institutions will conduct hazard assessments to maintain and update a national disaster risk profile and use assessment reports to warn vulnerable communities on impending disasters. Data on hazard assessments will be an important input for risk analysis and will inform the risk profile in the country as well as policy development and

implementation. The process of disaster risk assessment will be synchronized with the planning process, i.e. risk monitoring and evaluation need to be conducted simultaneously with risk reduction implementation of programmes such as strengthening early warning and advisory services. Monitoring Systems will be used to track hazard occurrences on vulnerability maps and design South Africa's priority disaster risk programmes.

8.3 Disaster risk reduction

8.3.1 In South African, disaster risk management is still often viewed as a reactive measure and handled separately from national development planning and given a low level of priority in national policies. As a result, only limited or no financial resources are allocated to risk reduction. These results in great loss from disaster damages, and government spend large amounts of money on disaster response, and fall into a vicious circle that impedes sustainable development.

8.3.2 Government should view investments in disaster risk reduction as a contribution to national development. To do this, they must identify, assess, analyze risks, develop a common recognition of the importance of disaster risk reduction as an investment at all levels, identify high-priority issues, implement and incorporate policies into national, provincial and local development plans. To effectively mitigate against disasters, risk reduction measures and prevention must be addressed first. The government needs to adopt a multi-sectoral and multi-disciplinary approach to reduce disaster incidents within farming communities. Preparedness for mitigation, risk reduction and prevention actions to reduce the probability and severity of disaster events should be filtered into existing and future policies, plans and projects of all spheres of government, as well as policies and practices of the private sector. Strategies to incorporate risk reduction into development planning imply adequate allocation of resources to spheres of government to ensure that the most vulnerable communities enhance their capacity to avert risks. This will improve resilience and adapt sectoral activities to prepare for disasters.

8.4 Response and recovery in the event of a disaster

8.4.1 Naturally, there will be a smooth transition from recovery to on-going development. There are many opportunities during the recovery period to enhance prevention and increase preparedness, thus reducing vulnerability. The process to ensure that disaster stricken farming communities recover from the impacts of natural disasters is challenging, yet it

must actually be initiated while the disaster's effects are still being felt and unfolding. The speed and efficiency in disaster recovery of the affected farming communities is important and must be carried out in a manner that will not leave the victims exposed to the same vulnerability from the next disaster event. The recovery process must encourage development and resilience to future natural disasters. When disasters occur, DAFF, PDA's and Local Authorities must quickly gather information from all stakeholders and activate appropriate steps in the contingency strategies to support and facilitate the recovery process to reduce further impacts of disasters. The necessary operational procedures, skilled personnel, and other resources must be in place and functioning.

8.4.2 Once the emergency situation has been brought under control DAFF shall coordinate the following post-disaster activities:

(a) Assessments of damages caused as a result of a disaster to determine the type of assistance that may be required.
(b) Provision of relief/ assistance and recovery services and monitoring the implementation process.
(c) Compiling post-disaster reports.
(d) Provision of restoration and rehabilitation to disaster victims.
(e) Implementation of rehabilitation programmes.

8.5 Information management and communication

The role of communication technology is integral in disaster risk management to communicate awareness messages with the vulnerable communities in time. Although application of communication technology has a role in al reduction measures namely, mitigation, preparedness, prevention, response and recovery, some of the application has traditionally been in response and recovery phases. Various communication systems are available including the Internet, mobile phones, fax, e-mail, radio and television as well as site visits. There are, however, both social and technical aspects to the application of these communication technologies and the effective application depends on their appropriateness in a social and economic context in which they are applied. Communication technologies will help establish preparedness for disasters, track approaching hazards, alert authorities and warn those who are likely to be affected and build resilience within communities. Because communication is vital during the whole cycle of disaster risk management, it is important that communication infrastructure in a disaster prone areas is established well. The dissemination of information required at al decision-making levels and implementation thereof holds the key to a risk

reduction strategy. Political decision-makers, administrative officials, and most importantly the vulnerable individuals require information to prepare for and respond to hazards and disasters. They should be aware of risks and the options available when disasters occur. The information required includes knowledge of the availability of resources (financial and human capacity) to disseminate information, and communicate in times of emergencies. Farming communities directly affected by a hazard or a disaster should be fully informed of actions they should take and assistance they are or are not entitled to so that they can make provision for this in their planning. Effective communication and information dissemination enhance and continuously improve disaster risk management, Early Warning and advisory information

8.6 Education, training, public awareness and research

The biggest challenge in government is disaster risk management programme funding. This problem is attributed to the less priority given to this function. This plan aims to substantially increase public awareness and research on natural hazards to put greater investment and action in risk prevention, mitigation, reduction and preparedness than relying on government relief. Managing disaster risks by building community capacity to reduce intensities of natural hazards and provide professional support in times of need is an important intervention. It is important to identify and correct weaknesses in capacity and training so that plans for risk reduction, and relief operations can be understood. Awareness programmes should target regions and communities at risk. Risk maps must be prepared, updated regularly and maintained to inform beneficiaries. Awareness programmes developed during quiet periods form a sound basis for the development of early warning systems. Public awareness and education regarding the realities of climate variability, status of natural resources and vulnerability, must be created as a mitigation measure. The disaster risk management principles should be integrated into the education curriculum in schools to gradually install these concepts at early education levels.

8.7 Funding arrangement for disaster risk management

Disaster risk management requires financial resources in securing personnel (appropriate skills and expertise), funding programmes/projects (education, awareness, and research) (including outsourced projects), research and normal operations (including but not limited to awareness creation, risk assessment and risk reduction monitoring). Funding is also required to finance disasters when they occur during response, recovery and rehabilitation. The long-term plan with respect to disasters is to fund research institutions to undertake research. Lack of funding however, still presents many challenges in terms of access and lead-time response. None of the functions may be accomplished without proper funding arrangements in place. Agreement has

been reached with the National Treasury that in order to be able to response much quicker to disasters as at present that a standing authorization will be granted to DAFF to draw funds forward from the normal allocated amounts on the budget to deal speedily with addressing disasters. DAFF's fund requirements can then be augmented through the adjustment budget. Once a disaster has been defined or declared and details of the scheme have been finalized, the National Treasury's approval will be obtained to deal with that particular disaster in the manner described above.

9. DISASTER RISK GOVERNANCE

Disaster risk governance generally refers to the set of instruments through which farming communities living in an area, believing in common core values, govern themselves by means of laws, rules and regulations enforced by the state. It denotes a system of values, polices, institution by which farming society manages its economic, political and social affairs through interaction among the state, civil society and the private sector. The government regulates sectoral activities through policies, strategies and plans. The effectiveness of partnerships depends on the coordination of disaster risk responses between the State and the people. The three components used by the state are economic, political and administrative governance.

9.1 Declaration of disasters

9.1.1 When provincial and local authorities have determined that a disaster is about to occur, the disaster risk management Unit in the province will immediately –

(a) Initiate efforts to assess the magnitude and severity or potential magnitude and severity of the disaster;

(b) Inform DAFF of the disaster and the initial assessment of the potential magnitude and severity of the disaster;

(c) Alert disaster risk management role-players in the province who may be of assistance; and

(d) Initiate the implementation of any contingency plans and emergency procedures that may be applicable.

9.1.2 The National Executive (Minister of DCoG) is primarily responsible for the coordination and management of national disaster risks, irrespective of whether or not a national state of disaster has been declared in terms of Section 27, 41, and 55 of the Disaster Management Act, 2002 (Act No. 57 of 2002). In the event of a national disaster, the

Minister of DCoG may, by notice in the *Government Gazette*, declare a national state of disaster if existing contingency arrangements do not adequately provide for the national executive to deal effectively with the disaster. In the event of a provincial disaster, the premier of a province, after consultation with the MEC's, may, in terms of Section 41 of the Disaster Management Act, 2002 (Act No. 57 of 2002), by notice in the *Provincial Gazette*, declare a provincial state of disaster. In the event of a local disaster, the council of a municipality may, in terms of Section 55 of the Disaster Management Act, 2002 (Act No. 57 of 2002), by notice in the *Provincial Gazette*, declare a local state of disaster if special circumstances warrant the declaration.

9.1.3 The Minister of DAFF may establish relief schemes in terms of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) in the interest of natural agricultural resource conservation to assist the farming communities. For the purpose of this plan, a declaration of a disaster is limited to animal diseases, migratory pests and natural disasters affecting the sector.

9.1.4 The following considerations may apply to the declaration of disasters:

(a) In the event of a national disaster, the Minister of Provincial and Local Government may, in terms of the Disaster Management Act (Act No. 57 of 2002), by notice in the *Government Gazette*, declare a national state of disaster if –

(i) Existing legislation and contingency arrangements do not adequately provide for the national executive to deal effectively with the disaster, or

(ii) Other special circumstances warrant the declaration of a national state of disaster.

(b) If a national state of disaster has been declared in terms of subsection (1) Minister may, subject to subsection (3), and after consulting the responsible cabinet member, make regulations or issue directions or authorize the issue of directions concerning –

(i) The release of any available resources of the national government, including stores, equipment, vehicles and facilities;

(ii) The release of personnel of a national organ of state for the rendering of emergency services;

(iii) The implementation of all or any of the provisions of a national disaster management plan applicable in the circumstances

(iv) The regulation of traffic to, from or within the animal disease disaster-stricken or threatened area;

(v) The regulation of the movement of persons and goods to, from or within the animal disease disaster-stricken or threatened area;

(vi) The maintenance or installation of temporary lines of communication to, from or within the disaster area;

(vii) The dissemination of information required for dealing with the disaster;

(viii) Emergency procurement procedures;

(ix) The facilitation of response and post-disaster recovery and rehabilitation;

(x) Other steps that may be necessary to prevent an escalation of the disaster, or to alleviate, contain and minimize the effects of the disaster, or

(xi) Steps to facilitate international assistance.

9.2 National disaster assistance in the event of provincial and local disasters

9.2.1 When a municipality or a province requests the national government to financially assist to post-disaster recovery and rehabilitation in the event of a provincial or local disaster, the following factors will be taken into account.

9.2.2 Whether any prevention and mitigation measures were taken or initiated by the municipality or province, and if not, the reasons for the absence of such measures; Whether or not the disaster could have been avoided or minimized had prevention and mitigation measures been taken; Whether or not it is reasonable to expect that prevention and mitigation measures should have been taken or initiated in the circumstances by the municipality or province; Whether the damage caused by the disaster is covered by adequate insurance, and if not, the reasons for the absence or inadequacy of insurance cover; and the magnitude and severity of the disaster, and whether or not available financial resources at local level, or if it is a provincial disaster, at provincial level, are exhausted.

9.2.3 Assistance in the case of animal diseases takes the form of compensation. The Animal Diseases Act (Act 35 of 1984); gives powers to the DAFF to manage and decide on the appropriate actions including provisions for assistance for affected farmers.

10. THE ROLES AND RESPONSIBILITIES IN TERMS OF NATIONAL DISASTER RISK MANAGEMENT FRAMEWORK

10.1 The primary responsibility for disaster risk management in South Africa rests with the government. Other organisations have a supporting role in this function. In terms of Section 41(1)(b) of the Constitution of the Republic of South Africa, each sphere of government must "secure the well-being of the people of the Republic". This means that both national and provincial governments have powers and responsibilities in relation to disaster risk management. Local government is also charged with responsibilities regarding disaster risk reduction and management under Part B of Schedules 4 and 5 of the Constitution. The Disaster Management Act 2002 (Act No. 57 of 2002) gave rise to the NDMF which guides all spheres of Government to prepare disaster risk management plans for their line functions. The NDRMF is based on four **(4) Key Performance Areas** which include *Integrated institutional capacity for disaster risk management, Disaster risk assessment, Disaster risk reduction, Response and recovery* and three **(3) Enablers** which include *Information and communication, Education, training, public awareness and research, Funding arrangement for disaster risk management.*

10.2 The Department of Agriculture, Forestry and Fisheries undertakes to perform the following key functions as outlined in the NDRMF:

10.2.1 Ensuring that KPA's and Enablers are implemented across PDAs and the national office.

10.2.2 Monitoring and evaluation of Key Performance Indicators as outlined in the NDRMF.

10.2.3 Ensuring that actions/contingency plans of all hazards are in place and aligned with NDRMF and the national guidelines.

10.3 The above-mentioned mandates require regular reviews, updates and reporting to measure progressive performance of each organ of state. These exercises will inform annual reporting at the National Disaster Management Center.

11. ROLES AND RESPONSIBILITIES REGARDING EMERGENCY RESPONSE AND POST-DISASTER RECOVERY AND REHABILITATION

The aim of emergency response is to provide immediate assistance to maintain life, livelihood and support the morale of the affected farming communities. Such assistance may range from providing for immediate needs such as containing a contagious animal disease through quarantine measures or

roadblocks to prevent further spreading. Other emergency measures may include the eradication of migratory pests through spraying. These may also involve initial repairs to damaged infrastructure if such damages prevent normal farming activities (floods). The focus in the response phase is on meeting the basic needs of the communities until sustainable solutions are arrived at. Private organizations are important service delivery partners in this phase. This may entail undertakings to draw binding contracts or agreements in advance with service providers for speedy recovery.

Since responsibility for disaster risk management in South Africa rests with the Government as stipulated in section 41(1) (b) of the Constitution of the Republic of South Africa, all spheres of Government will be required to team up and act in a coordinated and effective manner to deal with all emergency disasters.

11.1. Roles and responsibilities of the Department of Agriculture, Forestry and Fisheries

11.1.1 Part A of Schedule 4 of the Constitution identifies disaster risk management and related issues as areas of concurrent national and provincial legislative competencies. This means that national and provincial governments have powers and responsibilities in relation to sectoral disaster risk management.

11.1.2 DAFF disseminates early warning information in the form of monthly advisories and daily extreme weather warnings as one of the tools to address disaster risks in the sector. The early warning information is utilized to alert the individuals at risk about the impending disaster risks. Where conditions are leading to a disastrous situation and climate predictions point towards occurrence of natural hazards, pre-disaster assessments will be undertaken in the provinces for the purposes of monitoring and evaluating and to put risk measures in place. Emergencies such as floods and animal disease outbreaks are shared responsibilities between national and Provincial Departments of Agriculture. This is aimed at disaster risk reduction, prevention and mitigation as stipulated in the Disaster Management Act, 2002 (Act No. 57 0f 2002).

11.1.3 During assessments, DAFF has a responsibility to verify assessments conducted in the PDA's. DAFF may dispatch a team of officials to assist in disaster assessments where provincial capacities are inadequate to respond to a disaster.

11.2 Roles and responsibilities of the Provincial Departments of Agriculture

11.2.1 The roles and responsibilities of the Provincial Departments of Agriculture (PDAs) are based on the implementation of their Provincial disaster risk management Plans/strategies. The PDA's have a responsibility to conduct assessments to estimate damages caused as a result of disasters. Depending on the magnitude and scale of a disaster, may release funds to address the emergency situation. If the scale is beyond the available resources of the PDA, a request for assistance may be forwarded to DAFF. The PDA may make recommendations regarding the kind of assistance through the Provincial Disaster Management Forum in collaboration with stakeholders.

11.2.2 The PDA's have a responsibility to disseminate daily warnings and other emergency information to the farmers/clients. The PDA's have a responsibility to identify service providers to be on standby for emergencies. The PDA must dispatch a team to conduct assessments and compile reports.

11.3 Roles and responsibilities of Local Governments

11.3.1 Local Government must in collaboration with PDA's, mobilise resources to assist during emergencies. Both institutions must collaborate and coordinate emergency assistance for victims.

11.3.2 The role of Local Government extends beyond emergencies and relief efforts. As government institutions, Local Governments are also responsible for promoting risk reduction measures to reduce incidents of disasters.

11.4 Roles and responsibilities of Organized Agriculture, NGO's and private organizations.

Pre-approved private organisations (service providers) on standby may render their services during emergency situations. Organized Agriculture (OA) serves as farmers' mouthpiece to ensure that farmers are fairly and equitably assisted and provides guidance in the National, Provincial and Municipal Disaster Management Forums. NGO's and private organizations may perform functions as volunteers as provided for by the Disaster Management Act 2002 (Act No. 57 of 2002).

11.5 Roles and responsibilities regarding rehabilitation

11.5.1 The impact of natural disasters usually results in major setbacks including direct loss of existing assets and the diversion of government and farmer resources and efforts away from ongoing development. It is essential to assist people with rehabilitation if this restores production capacity quicker than would otherwise be possible. Once rehabilitation needs or assistance has been determined, measures will be enforced to ensure that only farmers who had taken appropriate measures to mitigate the disaster risk are assisted to discourage dependency on Government aid. DAFF will also develop rehabilitation programmes to assist farmers to restore infrastructure and resources in the sector.

11.5.2 All relevant stakeholders must cultivate a culture of responsibility on the usage of natural resources by promoting resource conservation and long-term sustainability in the sector.

12. CAPACITY TO FULFILL ROLES AND RESPONSIBILITIES IN THE FUCTIONAL AREA

12.1 Integrated institutional capacity and support

12.1.1 In an effort to step up institutional capacity and support, DAFF will establish SDRMCO comprised of officials from DAFF and the PDA's, OA, relevant National Departments, ARC, and SAWS. Subordinate to the SDRMCO will be the two sub-committees i.e. the NAC and SDMF to report to the committee regularly as stipulated in the terms of reference. The NAC updates the SDRMCO about weather and seasonal review and outlook while the latter reports how disasters are addressed. The envisaged disaster risk management units in the Provinces will help to consolidate efforts to establish a viable disaster risk system in the sector. On issues relating to climate change, the Department of Agriculture, Forestry and Fisheries established DWGCC with the main aim of aligning, coordinating and incorporating climate change into relevant line function as well participating in structures such as NCCC, and IPCC.

12.1.2 The roles played by other Government Departments cannot be overemphasized. The collaboration with other Government Departments will reduce duplication in rendering services to the same client for the same need. The role of NGO's, OA, commodity group organizations, academic and research institutions and private organisations is to trigger action when the time is ripe and mobilize resources where appropriate.

12.2 Research

12.2.1 With few exceptions, the African continent lacks the capacity to conduct research on environmental hazards and natural disasters or to apply the knowledge and implement the technologies to mitigate natural disasters. In comparison with the developed world, there is a general lack of data, information management, funding, skills and knowledge. There are many other competing demands to limited resources, and the proportion of funding devoted to scientific research lags behind in developing countries. Governments in Africa tend to rely on international donors rather than building financial capacity, knowledge and research.

12.2.2 Collaboration with research institutions to obtain information on impending significant events/hazards forms the integral part of DAFF's strategy. Research on disasters is a huge challenge because of unknown disaster magnitudes and mysteries on targeted areas. In South Africa, few studies undertaken in agriculture focus on floods, cold spell, drought, veld fires, and animal diseases. Research conducted still leaves much room for improvement because available information is insufficient to inform policy direction.

12.2.3 Research can contribute to improvement of early warning methods to provide effective prevention, mitigation strategies, and risk assessment techniques for pre-disaster planning and mitigation. The research focus will also highlight the links between natural disasters and climate change to understand the consequences of global warming, thereby allowing intertwined long-term planning. Efforts will be made to integrate earth-based and space-based surveillance platforms (satellites) into permanent monitoring systems to improve prediction and early warning, thus reducing disaster impacts.

12.2.4 The department through its research wing, the ARC will promote and support research to influence strategic decision-making and management of natural disasters. Thus, a comprehensive disaster risk management system will be achieved through continuous consultation with research institutions to monitor the magnitude of hazards and to disseminate early warning information to the clients. The major impediment to conduct research is the funding especially of climate change projects. The financial scale at which climate change projects require funding is large, thereby presenting huge challenges in the sector.

12.3 Human and financial resources

South Africa has a scarcity of people with expertise to deal with disaster risk reduction in the sector. The shortage of experts in this field makes it difficult to recruit the right talent. The insufficient project funding and the difficulty to retain staff further compound the problem. Research, projects, and risk reduction programmes need more funding to reduce overall vulnerability. The NDMF of 2005 will address the issue of funding.

13. CONTINGENCY STRATEGIES AND EMERGENCY PROCEDURES IN THE EVENT OF A DISASTER INCLUDING MEASURES TO FINANCE THESE STRATEGIES

13.1. Contingency strategies in the event of a disaster

According to the Disaster Management Act, 2002 (Act No. 57 of 2002) each organ of state must prepare a disaster risk management plans including contingency measures to be taken in the event of a disaster. In this regard, all contingency plans must be finalized within a period of twelve months from the date of approval of the Plan, and attached hereto as Annexures. The contingency strategies will be retrieved from line functions within DAFF and implemented in the event of a disaster.

13.2 Emergency procedures in the event of a disaster

13.2.1 The first measure in animal disease outbreaks is quarantine facilities established to curb further spread of the disease to other neighbouring sensitive areas. In the case of disease outbreaks the veterinary section will cull and compensate the affected farmers animals equivalent to the value of their losses. The focus is on diseases outbreaks and migratory pests since these are regarded as emergencies in the sector.

13.2.2 Key issues such as infrastructure repairs especially in the case of floods and availability and accessibility of funds for immediate relief introduced to post-disaster phases will be addressed. DAFF will facilitate and co-ordinates activities in the Provincial and Local structures to respond timeously in emergency times. Standard Operating Procedures guiding intervention processes will be developed and sensitized under each hazard. Each contingency plan will outline procedures to be followed during emergencies.

13.3 Measures to finance the contingency strategies

13.3.1 During pre-1994 period, the floods were handled in terms of the Conservation of Agricultural Resources Act, 1983 (Act No.43 of 1983). The principle was based on restoring farmers and communal areas to continue farming after the aftermath of a disaster. This entailed land restoration for commercial and small-scale farmers and repair communal infrastructure but this intervention was biased mainly towards one sector of the farming communities. Relief related to cold spells and veld fires were in the form of *ex gratia* payments.

13.3.2 DAFF developed disaster risk reduction strategies in each relevant line functions to address these situations. Disasters, specifically animal diseases, locusts and Quelea (red billed finches) are financed and managed by DAFF because of the extent of special expertise required and the danger of working with poisonous substances in combating the disasters. DAFF also deals with natural disasters e.g. floods; veld fires, drought and cold spell in the form of disaster relief schemes.

14. CO-ORDINATION AND ALIGNMENT OF DISASTER RISK MANAGEMENT PLANS WITH OTHER INSTITUTIONS AND ROLE-PLAYERS

14.1 The NDMC, under the auspices of the CoGTA, established under the Disaster Management Act, 2002 (Act No 57 of 2002), plays a pivotal role in coordinating, implementing and monitoring the new approach to disaster risk reduction by ensuring that government departments develop disaster risk management plans in line with the Disaster Management Act 2002 (Act No. 57 of 2002).

14.2 DAFF assumes the primary and leading role in the management of disaster risks namely: animal and plant diseases and pests, drought, cold spell, veld fires and migratory pests. However, DAFF plays secondary roles in the management of other disaster risks e.g. floods where the Department of Water Affairs assumed the leading role. The Departments of Social Development and Labour together facilitate the process through mobilizing and assisting farm workers affected by natural disasters (loss of employment).

14.3 Co-ordination is an important aspect if substantial contribution is to be made for successful risk reduction. Co-ordination at all levels is vital to address the principles of disaster risk management plans within the government Departments. Alignment of disaster risk management

plans within DAFF and other institutions is crucial because of the probability of overlapping and duplication which could have far reaching consequences to service delivery.

15. IMPLEMENTATION GUIDELINES

15.1 Strategic issues

Some strategic issues to be considered for implementation include:

15.1.1 Development and implementation of disaster risk reduction plans at provincial level linked to information management systems.

15.1.2 Development of systems to share disaster risk reduction information with stakeholders.

15.1.3 Establishment and maintenance of monitoring systems to mitigate, prevent and respond to disasters.

15.1.4 Provision of support to improve institutional and organizational capacity with special focus on human and financial resources. The goal is to improve programme planning, implementation, monitoring and evaluation.

15.1.5 Developing contingency plans.

15.1.6 Awareness creation within farming communities.

15.2 Implementation tools

The disaster risk management plan embodies the principles and guidelines contained in the following documents:

15.2.1 The Constitution of the Republic of South Africa, (Act no 108 of 1996).

15.2.2 The White Paper on Agriculture, 1995.

15.2.3 The White Paper on Disaster Management, 1999.

15.2.4 The Disaster Management Act (Act No.57 of 2002).

15.2.5 The National Disaster Risk Management Framework, 2005.

15.2.6 The Strategic Plan for Department of Agriculture, Forestry and Fisheries 2001.

15.2.7 The Conservation of Agricultural Resources Act (Act No. 43 of 1983).

15.2.8 Agricultural Pests Act (Act No.36 of 1983).

15.2.9 Animal Diseases Act (Act 35 of 1984).

15.2.10 Livestock Brands Act (Act No.87of 1962).

15.2.11 Animal Identification Act (Act No.6 of 2002).

15.2.13 Fencing Act (Act No.31 of 1963).

15.2.14 National Veld and Forest fire Act (Act No. 101 of 1998).

15.2.15 National Environmental Management Act (Act No. 107 of 1998).

15.2.16 Marine Living Resources Act (Act No. 18 of 1998).

15.2.17 Marine Aquaculture Policy of 2007.

16. REVIEWS AND UPDATES OF THE PLAN

The SDRMP will be reviewed at least once a year. Reviews will focus on key performance indicators achieved at the end of a financial year in accordance with NDMF. Any agreed changes emanating from inputs and comments will receive immediate attention and reported to the NDMC.

17. LAY-OUT OF DISASTER RISK CONTIGENCY PLANS

17.1 Once the Plan is approved, contingency plans must be developed as indicated in 13.1.1 above.

17.2 The lay-out of the contingency plans will be outlined in the format in accordance with the NDRMF i.e. alignment with the four (4) Key Performance Areas (KPA's) and three (3) Enablers: - as follows:

17.2.1 Key Performance Areas

(a) Institutional capacity for disaster risk management
(b) Disaster risk assessment
(c) Disaster risk reduction
(d) Response and recovery

17.2.1 Enablers

(a) Information management and communication,
(b) **E**ducation, training, public awareness and research in disaster risk management
(c) Funding arrangements for disaster risk management.

17.3 Disaster Risk Reduction Plans for all other hazards are the responsibilities of individual line functions within DAFF.

18. CONCLUSIONS

The devastation caused by natural disasters in the past decades has to date, remarkably demonstrated the vulnerability of the sector to both natural and human-induced disasters. It is thus essential that a holistic approach involving the entire farming community be adopted to manage hazard risks in a coordinated and effective manner. Many natural disasters occurring annually in South Africa are often caused by weather-related phenomena. It is necessary to build capacity on agro-meteorology both inside and outside the sector of society through partnerships and community participation as well as the inclusion of disaster risk reduction programmes in developmental planning of local governments. Partnerships are essential in managing disaster risks affecting the sector in the country. South Africa needs to filter preparedness, mitigation, and risk reduction in response plans and take precautionary measures to prevent and monitor the manifestation of disasters.