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**Evaluation: The Western Cape Department of
Agriculture's Response to the COVID-19 Pandemic
April 2022**

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Summary

In March 2021, in the wake of the first year of the COVID-19 pandemic, the Western Cape government published its Recovery Plan (WCG, 2021). This highlighted the need to institutionalize the learnings from the COVID-19 pandemic and its management, and embrace the “New Norm Culture” ,which aims to *“shift the culture to one that is more adaptive, stimulates innovation, harnesses data intelligence, and promotes continuous learning and a caring approach”*. Considering that the occurrence of future intense crisis events, akin to COVID-19, is regarded as a high probability within the scientific community, the importance of learning from the response to the COVID-19 pandemic – and how it translates to future risk management – is significant (Marani et al., 2021).

The Western Cape Department of Agriculture commissioned a diagnostic, implementation, impact and design evaluation of its COVID-19 response for the period March 2020 to end February 2021. The aim is twofold; to solicit learnings and to improve future preparedness for and response to disruptive risk events.

The evaluation has found the Department performed well and provided an effective and efficient implementation of response measures in response to the pandemic and in alignment with the Strategic Outcomes articulated in the Provincial Strategic Plan (PSP) (WCG, 2019) and with notable impacts internally and within the sector. Key enabling aspects underpinning the Department’s response include well established trust relationship with sector clients and stakeholders (including across government spheres), clear, decisive, effective and agile organisational leadership operating within a distinct and supportive “WCDOA culture”, existing integrated risk management and continuous improvement disciplines and processes, and recent experience in dealing with previous disaster situation, especially the 2015-2018 drought

Recommendations were developed based on insights derived and identification of “lessons learned” through the course of the evaluation and directed at strengthening the risk and resilience management processes of the Department (and the Sector as a whole). The recommendations are contextualised within a proposed risk management framework and are detailed within five key interventions regarded as priorities to successfully equip the Department and Sector to better anticipate and respond to crisis events that are characterised by high uncertainty, unpredictability, complexity, and scale of potential impact. The recommendations include the strengthening and further formalising of the transversal engagement that emerged through the crisis between the different spheres of government and between government departments at provincial and national levels. This may necessitate policy changes beyond the emergency measures promulgated under the COVID-19 crisis.

Executive summary

The COVID-19 pandemic has arguably been the most disruptive global event in modern history, with far-reaching adverse consequences. As a systemic shock it has had not only a direct impact on health and safety but also impacted the functioning of all spheres of government, with far-reaching economic and social implications. At a national level this prompted the declaration of a National State of Disaster on 15 March 2020 and a declaration of agriculture as an essential service on 25 March 2020. At a provincial level, the Department of Agriculture (hereafter referred to as WCDOA or as the Department) proceeded to prepare and implement a range of response measures to ensure its own operational continuity and to support the ongoing functioning of agriculture in the Western Cape. The focus was on safeguarding health, safety and employment security, both for the Department and the Sector, and to protect food security in the province.

The Department commissioned a diagnostic, implementation, impact, and design evaluation of its COVID-19 response in the period March 2020 to end February 2021 to learn from these experiences retrospectively and prepare for future disruptions. The evaluation covers five evaluation areas: (i) preparedness, (ii) institutional and regulatory context, (iii) internal and external response measure impact, (iv) learnings and (v) future risk management.

Summary of findings

General preparedness and risk management processes: Despite thorough integrated risk management processes and its well established expertise in responding to disaster situations in the sector, it transpires that the Department – as with government departments globally – did not fully anticipate the magnitude of the COVID-19 pandemic, or indeed, the severity of impact on the agriculture sector in the Province. While it would appear that the pandemic and its implications were a "blind spot" for the Department's risk management processes, it is also clear that, once the crisis hit, the well-established risk management mind-set and disciplines and the experience of dealing with the recent prolonged drought were indispensable to the Department's ability to respond decisively and with agility.

Response capacity and efficiency of preparation of immediate responses: The enabling organisational culture and operating environment that characterises the WCDOA have been key to the rapid formulation and implementation of appropriate responses once the crisis was upon the Department and sector. This was emphatically underscored by both internal and external respondents. Add to this the comprehensive and rapidly formulated responses, directed at internal operations and on the functioning of the sector - all undertaken within a rapidly escalating health crisis - indicate a significant inherent response capacity in the Department and efficient preparation of responses.

Institutional and regulatory context: The evolving regulatory and legislative environment created a number of challenges for the WCDOA and the sector as a whole, and the evaluation found that, overall, the regulatory environment created difficulties and was undermining of the efforts of the Department and sector to respond effectively: The early response period, in particular, was characterised by multiple examples of government regulations being inadequate, contradictory, requiring additional clarification and support within and across the government spheres and/or agricultural stakeholders. Notwithstanding this, it is clear that the Department went to extraordinary lengths to mitigate this and came to be regarded as a trusted source of needed clarity, information and answers. The advocacy role the Department with National Government on behalf of the sector was crucial

In terms of institutional arrangements, engagement forums and communication channels with other spheres of government and with sector stakeholders are also found to have been an indispensable component of the efforts to gather information, mitigate confusion and coordinate responses. This took the form of opening lines of communication between the different spheres of

government which enabled advocacy for changes to regulations. Engagement across the three spheres of government included the Department's involvement in the Joint District & Metro Approach and the District Coordination Forums. The industry stakeholder engagement forums, that built off relationships and forums already in place with industry before the advent of the COVID-19 crisis, are also found to have been of great value.

Impacts of response measures: Internally, the Department was found to have been successful in creating a safe internal work environment, an efficient transition to remote work and maintaining critical services and functions. Adverse impacts were noted in relation to staff capacity and well-being and in the functioning of the College, which may require its own specific risk management processes that reflect its unique operating context within the Department.

Externally, the different response measures were found to impact household, community and sector levels and contributing to food security by providing economic support and relief, assisting in job creation and provided advisory support, including to the wine industry. The impacts from the Department's ability to address underlying and industry specific stressors was acknowledged and appreciated by stakeholders across the sector.

Lessons learned

Valuable lessons were learned directly from the Department's handling of the crisis. These were distilled into key "elements" that should be incorporated within all future risk management processes undertaken by the Department:

Early detection	The earlier a potential crisis/risk is detected the sooner it can be responded to.
Rapid sense-making	The sooner the crisis/risk and its impacts is understood the sooner it can be responded to.
Open lines of communication	Open lines of communication internally and with external parties is critical
Decisive leadership action	Decisive leadership is required to make decisions, define tasks, assign responsibilities etc.
Preparation	Preparation pays – responses can be developed with a higher degree of anticipation and readiness.
Organisational culture	The organisation's culture determines the levels of goodwill and willingness to go the extra mile.
People	People make the difference - all actions rely on the organisation's people and the same people can be impacted by the crisis.
Established & good relationships	Good relationships underpin trust, open communication, pooling of resources etc.
Shared vision & understanding	A shared vision and understanding is critical to galvanizing and aligning actions between parties.
Good data	Access to reliable and timeous data/information is critical.
Flexibility	The ability to adjust and adapt as needed is key.
Context specific responses	The ability to tailor responses to be suited to specific/ different contexts is important.
Interpretation & clarity	Bringing clarity to rapidly evolving regulatory environment is critical.
Financial means	The ability to access needed funds / make funds available is key.

Furthermore, an examination of the risk and resilience literature identified five lessons that are relevant to the formulation of an improved risk management process going forward.

- It should be geared to endow the Department (and the sector) with greater capacity to deal with deep uncertainty and crises that fall into the class of “unknown unknowns”.
- The post COVID-19 pandemic risk environment will be characterised by increased levels of uncertainty thus it should be informed by the “resilience approach”, rather than the “control approach”.
- It should explicitly integrate the capacity for the appropriate use of top-down AND bottom-up elements in the formulation and implementations of responses.
- To cope better with “deep crisis” it should integrate elements of the pragmatic principle led approach in the formulation and implementation of response strategies.
- It should integrate the concept of “resilience as a process” within its design and functioning.

Recommendations

A “Risk and Resilience Framework” was developed and is proposed that sets out a holistic risk and resilience management process that incorporates the insights, findings and lessons arising from this evaluation. The implementation of such a framework would require a minimum of 5 key interventions:

Intervention 1: Adopting an ongoing systemic risk management / adaptive process.

Intervention 2: Strengthening and/or establishing the needed internal and external risk management networks and forums.

Intervention 3: Adopting a holistic (systems) conceptual framework that represents all the key components and interconnections within the system included within the risk and resilience management process.

Intervention 4: Ensuring linkages and alignment between the Department’s Strategic Outcomes and the risk management processes, holistic framework and networks & forums.

Intervention 5: Leveraging the core capabilities and capacities to ensure an “enabling environment” for a proactive risk and resilience management process.

Conclusion

True to its culture, the Department has chosen to regard the crisis and its aftermath as an opportunity for reflection, learning and strengthening towards its vision of an economically prosperous, inclusive and resilient agriculture sector in the Western Cape. Through the identification of lessons learned, and the putting forward of a Risk and Resilience Management Framework, this evaluation gives effect to the Department’s desire to fully exploit the opportunity that COVID-19 has presented to strengthen its and the sector’s capabilities to successfully navigate an operating environment that will, undoubtedly, be characterised by an increasing occurrence of little anticipated, poorly understood and high impact disruptive events.

List of abbreviations

ANC	African National Congress
APP	Annual Performance Plan
BCP	Business Continuity Plan
BFAP	Bureau for Food and Agricultural Policy
CASIDRA	Cape Agency for Sustainable Integrated Development in Rural Areas
CGA	Citrus Growers Association
COVID-19	Coronavirus disease 2019
DA	Democratic Alliance
DAC	Development Assistance Committee
DALRRD	National Department of Agriculture, Land Reform and Rural Development
DCF	District Coordination Forums
DESC	Departmental Evaluation Steering Committee
DLG	Department of Local Government
DMA	Disaster Management Act
DOH	Department of Health
DPSA	Department of Public Service and Administration
DTIC	Department of Trade, Industry and Competition
EC	Eastern Cape
FAQ	Frequently Asked Questions
HOD	Head of Department
HR	Human Resources
IDC	Industrial Development Corporation
IT	Information Technology
MS	Microsoft
MTSF	Medium-Term Strategic Framework
OECD	Organisation for Economic Co-operation and Development
PDMC	Provincial Disaster Management Centre
PPE	Personal Protection Equipment
PSP	Provincial Strategic Plan
SATI	South African Table Grape Industry
SEAD	Strategic Evaluation, Advisory & Development
SWOT	Strengths, Weaknesses, Opportunities and Threats
TBD	To Be Determined
TERS	Temporary Employer Relief Scheme
TOC	Theory of Change
UIF	Unemployment Insurance Fund
VIP	Vision Inspired Priorities
WC	Western Cape
WCDOA	Western Cape Government Department of Agriculture
WCG	Western Cape Government
WFW	Working For Water
WHO	World Health Organization

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1. Introduction

Towards the end of February 2020, the South African Department of Health circulated a draft Preparedness and Response Plan for the Novel Coronavirus discovered in China in late 2019. The first positive case of the 2019 coronavirus disease (COVID-19) in the Western Cape occurred on 11 March 2020. On 15 March, the President declared South Africa to be in a National State of Disaster following the WHO pandemic classification on 12 March. Hereafter followed a series of actions and responses across all spheres of government and society to mitigate the effects of the virus and its spread.

This evaluation was commissioned by the Western Cape Department of Agriculture (WCDOA) to assess its COVID-19 response within the period March 2020 to end February 2021.

1.1 Purpose of evaluation

The purpose of the evaluation is to support the Department, and subsequently the sector, in increasing resilience to future disruptive events by integrating learnings from the COVID-19 pandemic into a set of recommendations for future risk management.

The intention is that the evaluation may be used as a forward-looking tool with recommendations relevant to the Provisional Departments of Agriculture, Health, Economic Development & Tourism, the Provincial Treasury, the Office of the Premier, as well as organised agriculture and industry associations actors across the downstream value chains.

1.2 Evaluation questions

With a focus on the WCDOA's response to the COVID-19 crisis, the evaluation is guided by the following five questions as outlined in the Terms of Reference:

- a) *How efficient was the preparation of the WCDOA response to the COVID-19 pandemic?*
- b) *How efficient was guidance and the legislative and institutional environment created by the three spheres of government, in supporting the WCDOA to respond to the pandemic?*
- c) *What was the impact of the Department's Covid-19 response on its own functioning, and on the Provincial Agricultural Sector?*
- d) *What lessons can be learned from the WCDOA's response to Covid-19 and what should change to enable the Department to be prepared to face the range of future risks?*
- e) *What are other major disruptive risks the Western Cape Agricultural Sector could face in the next decade and, based on the lessons learned, how should the Sector prepare to face these disruptions?*

1.3 Report structure

The report is structured chronologically to the extent possible with Chapter 2 containing the methodology, Chapter 3 the key findings, Chapter 4 presents the implicit Theory of Change (TOC), Chapter 5 presents key risks that the Sector could be facing in future, Chapter 6 distills the key lessons learned, and Chapter 7 proposes a set of recommendations arising from the evaluation, including a proposed risk management framework.

2. Methodology

The WC COVID-19 response evaluation (hereinafter referred to as the evaluation) was commissioned as a diagnostic, implementation, impact, and design evaluation and has been undertaken with a utilisation-focused approach with consideration of development evaluation aspects (DPME, 2014). This approach specifically addresses the need for the evaluation to support

ongoing learning for management and innovation (Patton, 2011) as well as it allows for a strong participatory approach.

2.1 Evaluation phases and plan

2.1.1. Project structure

The evaluation followed four distinct phases supported throughout by regular Departmental Evaluation Steering Committee (DESC) (Annex A) meetings in accordance with the development evaluation approach (Figure 1).

The inception phase served to ensure a common understanding and detailed the evaluation approach, data needs and project milestones. The review phase consisted of a review of grey and scientific literature, WCDOA documentation and four key informant interviews and produced a comprehensive review report. The data collection phase sought to validate the findings and gain a deeper understanding via 32 semi-structured interviews with representatives from the WCDOA, the Western Cape Government (WCG) and industry stakeholders (Annex B). Data was hereafter analysed within the evaluation framework detailed in section 2.2. and synthesised into a final report.

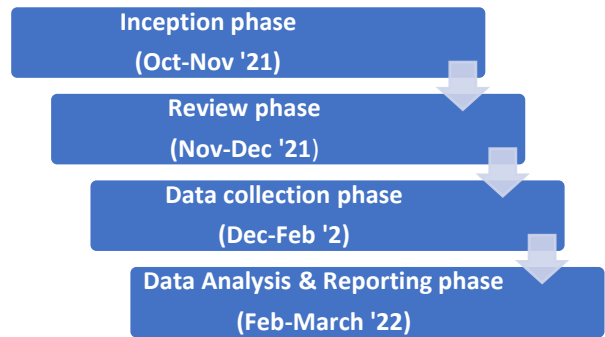


Figure 1. Summary of the evaluation phases

2.1.2. Limitations

While it was not possible to include personal insights from a national government perspective, the data gathered throughout the course of the evaluation was sufficient to provide a detailed understanding of the WCDOA's response and respond to the evaluation questions fully, derive key learnings and develop meaningful recommendations for the Department. There was a change within the evaluation team (Annex C) with a change in lead researcher during the course of the project, which was formally agreed to by the DESC.

2.2 Evaluation Framework

The diagnostic, implementation, impact and design framework (Figure 2) served to guide the evaluation design and focus the different phases. Each of the five evaluation questions were incorporated within one or more of these components with the purpose of informing a future risk management approach for the Department and the sector as a whole.

To guide the analytical framing the evaluation framework applied the updated OECD DAC (2021) evaluation criteria (relevance, coherence, efficiency, effectiveness, impact and sustainability). These will be applied to the extent relevant for each question with attention to ensuring appropriateness to the context of the responses and triangulation of data (refer to Annex D for details).

Overall purpose: To explore the internal contingency planning and external response strategy of the WCDOA to the COVID-19 pandemic for the year March 2020 to end February 2021 in relation to its mandate and to gain insight for a strengthened risk management process going forward.

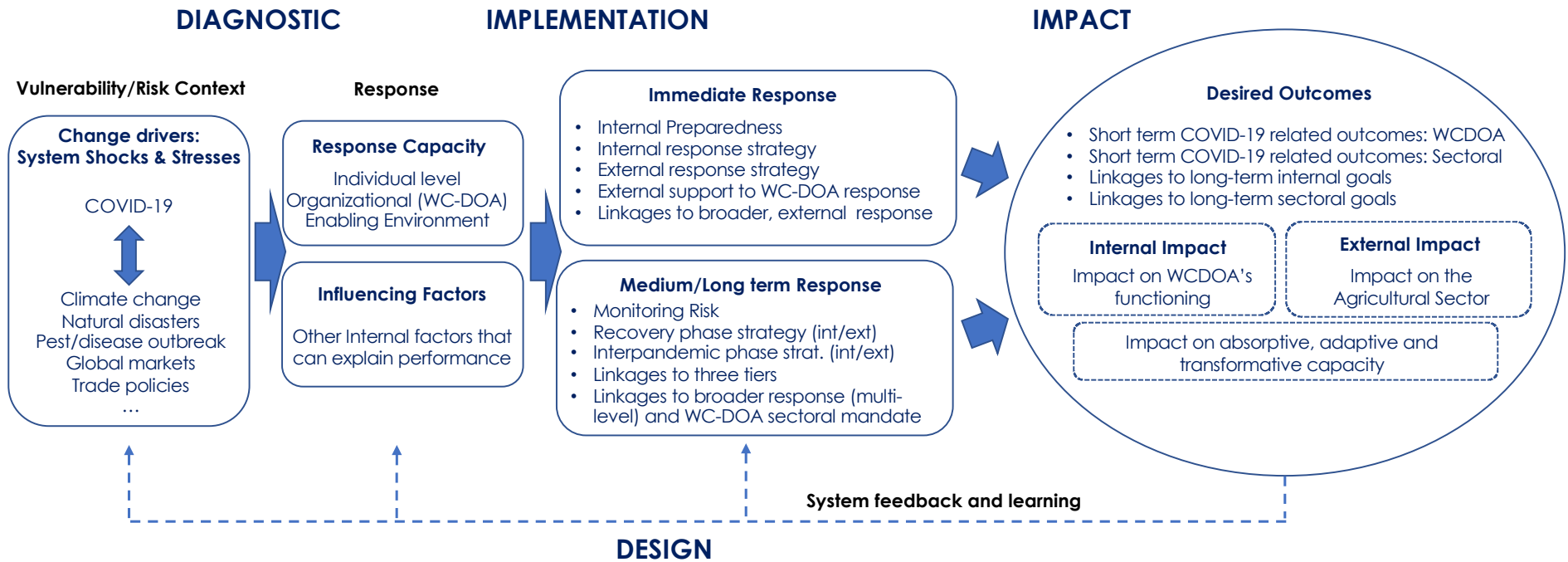


Figure 2. Overarching evaluation framework

3. Findings in relation to the Department's preparedness, response and impact

This section highlights findings in relation to the evaluation questions examining the pre-COVID-19 preparedness and the response capacity at different levels; the institutional and regulative context, and; impacts from the early response measures. Section 1 of the Review Report prepared as part of the evaluation provides supporting context and detail.

3.1 Assessment of the Department's preparedness

A diagnostic approach is applied here to evaluate the levels to which the Department was prepared, and the response capacity that was in place, when COVID-19, and the crisis it presented, materialised - these are addressed in 3.1.1. and 3.1.2 respectively.

3.1.1. General preparedness and risk management processes in the Department

The WCDOA has various well established and robust strategic planning cycles that guide the Department's activities and risk identification, risk assessment and contingency planning are integral to these strategic planning processes.

The five-year strategic plan – the Medium-Term Strategic Framework (MTSF) 2020/21 to 2024/25 – outlines the Strategic Plan of the Department and incorporates a comprehensive situational assessment and the identification of risk trends and their potential impacts. Interestingly, the danger of zoonotic disease is highlighted, and the corona virus outbreak in China is mentioned, however it is addressed in the strategy (in terms of proposed mitigation measures) in the context of food safety and not as a global pandemic risk that COVID-19 was to become.

The MTSF is translated annually into the Department's Annual Performance Plan (APP), which also includes careful strategic analysis and planning, informed by policy direction as well as the constantly evolving risk landscape that the agriculture sector is exposed to. Interestingly, the 2020/21 APP was signed off by the HOD on the 17th of February 2020, less than a month before the National State of Disaster was declared in South Africa.

At the Programme level, the Department develops an annual risk register to inform operations and strategic planning and direction. Programme 1 furthermore undertakes a quarterly Risk Review. A search of the risk register prepared ahead of the completion of the MTSF and APP finds no mention of "pandemic", "zoonotic disease" or "COVID-19".

Incorporated in the MTSF are key lessons learned from the previous strategic period, and considerations for how the sector and/or Department will be affected. It highlights that there has been at least one agricultural disaster every year for the past decade. The Department plays a key role in preparedness, response and recovery to these disasters (which primarily have been natural disasters):

"Apart from being involved with post disaster mitigation and recovery, it is also necessary to have a proactive approach towards natural disasters. The Department's ability to respond to these disasters requires significant capacity to strengthen the WCDOA's response in developing early warning mechanisms and systems, building resilience, and providing distressed farmers easy access to information and support. As such, the Department has started with a bi-annual disaster monitoring assessment, which includes a veld condition assessment, as an early warning mechanism" (WCDOA 2020, pg 78).

The Department also develops Business Continuity Plans (BCP) on an annual basis which outline measures in the event of a disruption and contingency plans for emergencies (prepared for system shocks and stressors such as water shortage, power failure and fire). It further engages with relevant forums such as the Provincial Disaster Management Centre (PDMC), where the WCDOA played an important role during the 2015-2017 drought and the avian flu crisis.

The 2015-2017 Western Cape drought (and count-down to Day Zero in 2018) and the lessons learned from managing that crisis, did serve to increase the Department's general preparedness,

and “may even have prepared the WCDOA better than other departments”. “The drought laid the blueprint ...and the basis of preparedness of the sector”.

The evaluation also found that the pre-COVID-19 contingency plans for emergencies were useful as reference documents in developing more situation specific responses - aspects specifically noted as relevant being; how to implement rotational work and addressing employee health issues.

Despite these thorough integrated risk management processes and its well established expertise in responding to disaster situations in the sector, it transpires that the Department – as with government departments globally – did not fully anticipate the magnitude of the COVID-19 pandemic, or indeed, the severity of impact on the agriculture sector in the Province. While it would appear that the pandemic and its implications were a “blind spot” for the Department’s risk management processes, it is also clear that, once the crisis hit, the well-established risk management mind-set and disciplines and the experience of dealing with the prolonged drought were indispensable to the Department’s ability to respond decisively and with agility.

3.1.2. Response capacity and efficiency of preparation of the immediate responses

In assessing the Department’s response capacity and the efficiency of its preparations, it is noted that, pre-COVID-19, the Department was operating under severe capacity constraints; delivering its services with 43% of approved posts unfunded. According to the Strategic Plan 2020/21-2024/2 (pg 86):

“... the department is delivering its services with a huge under-capacity. This is mainly ascribed to budget limitations and the ceiling on the filling of posts. It is now more obvious than ever that the personnel capacity is stretched to the limit. Reduction in services and targets may well become a reality if this situation prevails”.

It is from within this already constrained operating environment that the extreme crisis that the pandemic was rapidly to become, was responded to. While this undoubtedly would have had a negative impact on the department’s preparedness, it also serves to magnify the success of the responses implemented and the extraordinary effort of the Department. It should further be noted that the Department experienced its first COVID-19 staff fatality in March of 2020 (first of three fatalities in the Department), which brought home in tragic circumstances the seriousness of what the Department, the sector and the country was facing, and inadvertently helped focus the Department’s preparation and early response (“*Leadership and management took COVID-19 seriously very early*”).

It is also important to acknowledge the speed with which the crisis evolved – The first confirmed case of COVID-19 in South Africa occurred on 5 March 2020 and in the Western Cape on the 11th of March 2020. On 12 March the WHO declared the spread of the COVID-19 virus to be of a pandemic nature - leading to the declaration of a National State of Disaster in South Africa on 15 March. The Department was decisive and thorough in its response:

- Within 3 days of this declaration, the WCDOA had finalised its COVID-19 Business Contingency Plan, identifying the critical business processes, contingency actions and resource needs for all ten programmes, with a focus on reducing the impact of the pandemic;
- The WCDOA COVID-19 Business Impact Analysis and Response Strategy followed on 23 March - each WCDOA programme now had identified specific actions based on 20%, 40% and 60% employee absenteeism scenarios;
- Other key early organisational and operational responses included the assignment of a “Covid Response Officer” mentioned as “*key to the effective internal response*”, initiating Emergency Management Meetings to address immediate administrative and operational issues, setting-up IT functionalities, internal and external communications and provision of training and technical assistance to staff. The Department’s established communications

network was also a key resource that aided the rapid transition to remote work and communication with clients and stakeholders (predominantly via MS Teams);

- Engagement within the PDMC was intensified;
- The emerging regulations were rapidly consolidated into a regularly updated (and vetted by legal services) Frequently Asked Questions (FAQ) resource.

Agriculture and food supply were classified as essential services by the Minister of Agriculture, Land Reform and Rural Development on 24 March, and published in the Government Gazette on 25 March. This resulted in:

- A realigned and focused strategic planning within health & safety, food security and employment security;
- Internal scenario impact analysis and engagement with the sector to help in defining initial priority measures;
- Integration with other emerging initiatives and ongoing engagement with industry bodies to inform and shape the ongoing response strategy;
- Given its close ties to sector stakeholders and local communities, the WCDOA's role became more strongly focused on awareness creation (e.g., via infographics for agri workers on COVID safety), communicating information on regulatory updates and supporting the industry in facilitating government responses to pressing issues;
- Compiling value chain information from the Bureau for Food and Agricultural Policy (BFAP) to enable the Department and stakeholders to track key food security metrics

The evaluation found that, while BFAP was an example of the value of the Department being able to efficiently access and utilise key data, the Department was, however, unable to leverage the value of its own internal databases – *“the Department has more than twenty databases across its various programmes, but they exist in silos and are not integrated at all”*. These would include CapeFarm Mapper, FruitLook, its soil and veterinary laboratories databases, export certification database etc. The inaccessibility of these data assets to decision makers within the Department – that may have provided support to the “sense-making” phase and ongoing management of the crisis – represent a missed opportunity in terms of response capacity and could deprive the Department of critical data in the face of future disruptions.

A key underlying factor underpinning the response capacity and the efficiency of response preparation was the enabling environment already entrenched within the Department. This is a function of, amongst others, continuity of leadership, clear and decisive leadership, an openness to external examination and critique, a cohort of employees committed to “going the extra mile” and an organisational culture that engenders a “can do” approach. Internally, there is acknowledgement of a strong “WCDOA community”, with multiple examples of managers going beyond the call of duty to ensure staff well-being, internal functioning, and being available to support clients and stakeholders. Externally, it is evident that the Department has, over many years, built a considerable network of trusted relationships with industry associations and government and sector stakeholders – which were vital to coordination of efforts and building shared understanding between the Department and the sector – *“...we had solid existing partnerships with industry, these were in place, there was a natural drift towards each other when the crisis hit”*.

The enabling environment that characterises the WCDOA has been key to enabling the rapid formulation and implementation of appropriate responses once the crisis was upon the Department and sector. This was emphatically underscored by both internal and external respondents.

Add to this the comprehensive and rapidly formulated responses (as summarised above), directed at internal operations and on the functioning of the sector, all undertaken within a rapidly escalating health crisis, indicate a significant inherent response capacity in the Department and efficient preparation of responses. This is characterised by the statement *“while our preparedness was limited, loads was done in a short period of time”*.

3.2 Assessment of the legislative & institutional environment

The strategies and operations of the WCDOA are deeply embedded within the legislative and institutional environment comprising the three spheres of government: Both national and provincial spheres have legislative mandates related to agriculture with the implication that the manifestos of both spheres inform the strategy and operations of the WCDOA. Agriculture is also a key economic sector in all five of the district municipalities of the Western Cape, meaning the WCDOA cannot develop a strategy without reflecting the strategies and priorities at the local government level. Please refer to the Evaluation Review Report (pages 30 -35) for a more detailed exposition of the legislative and institutional environment within which the WCDOA has to operate.

Beyond government and organs of state, the agricultural sector itself is multi-faceted and complex: It is made up of a wide array of organisations, bodies and institutions with their own particular constituencies, interests and objectives. These range from the people living on farms (as owners, managers, workers, families, etc), a large range of scales of farms from large commercial to small scale and subsistence farms, various farmers associations (for both commercial and smallholder farmers), water users associations and irrigation boards, workers unions and federations, organised agriculture bodies, industry associations (such as FSA, Hortgro, SATI, VINPRO and CGA) and various Non-Governmental Organisations (NGOs). When considering the three spheres of government and the structure of the sector, it is clear that the operating context of the WCDOA is a highly complex one, even in periods of relative stability.

Informed by this context, the Department develops its strategic plans that are detailed in the 5 year MTSF and updated annually via the APP. The current strategy defined in these planning cycles articulate the overall strategic intent of the Department and the high-level outcomes and sub-outcomes that underpin the achievement of the strategic intent. In short, the APP sets the basis for the functioning and activities of the Department for the year. It is this strategic plan that was formally adopted in February 2020, just as the COVID-19 storm broke.

As the pandemic advanced and National and Provincial government responded, a cascade of regulations and guidance material ensued, all of which fundamentally disrupted the legislative and institutional context that had informed the Department's strategic plans, and which now needed to be hastily integrated into its own and the sector's functioning. For example:

- On March 12 2020 the WCG Department of Community Safety distributed a "Pandemic Management Business Continuity Plan" which included guidance on how to manage a pandemic in a workplace.
- The Department of Public Service and Administration (DPSA) issued Guidelines for the containment/ management of COVID-19 in the public service (which also included guidelines for registers for reporting on positive cases and closing of offices)
- The Department of Employment and Labour issued guidelines for employers to deal with COVID-19 at workplaces.
- on 23 March the President announced a national lockdown would commence from 27 March (Alert Level 5).
- In the following days, information was released on several economic relief options. These included:
 - the Solidarity Fund,
 - the COVID-19 Black Business Fund,
 - Confirmation from the Minister of Employment and Labour that employers may pay their employees directly and claim from the Unemployment Insurance Fund (UIF) retrospectively (the Corona Virus Temporary Employer Relief Scheme - TERS)
 - an announcement that the Department of Agriculture, Land Reform and Rural Development (DALRRD) had set aside R1.2 billion to address sectoral impacts and availed R100 million to the Land Bank to assist farmers under distress, and
 - the Department of Trade Industry and Competition (DTIC) announcement of an Industrial Development Corporation (IDC) facility of R1.3 billion.
- Agriculture and food supply were classified as essential services by the Minister of Agriculture, Land Reform and Rural Development on 24 March, and published in the Government Gazette on 25 March.

- The Government Gazette outlined changes to the Disaster Management Act (DMA) (No. 57 of 2002): Regulations issued in terms of Section 27(2) of the Act to effect lockdown measures. This meant, *inter alia*, that farming businesses were allowed to continue operations while non-food production services had to stop.
- Regulative R657 was issued which prohibited all domestic sale and export of wine. While the ban on alcohol continued to be an issue throughout the period, on 26 March Government issued a Government Gazette which addressed the harvesting and storage of wine grapes with the addition of paragraph 31 to DMA (57 of 2002) allowing for such activities.
- The Government's response strategy to the pandemic was released on 23 April and specified several alert levels based on a risk-adjusted approach. This was followed by an announcement that the country would move to an adjusted Alert Level 4 on 1 May (Government Gazette, 29 April R.480)
- Various guidance was communicated on the implementation of the Government's risk-adjusted strategy from the DPSA (Circular No. 18 of 2020 on 1 May), a media briefing by the Employment and Labour Minister on "back-to-work-readiness", and the release of the COVID-19 Occupational Health and Safety Measures in Workplaces on 29 April (C-19 OHS, 2002).
- On May 11, the "Whole of Government Response Plan" (the Targeted Hotspot Plan) was adopted by the Western Cape Government. This provided the framework for addressing thematic issues such as health, food security, economic recovery and communication within 7 hot spot areas and meant that the WCDOA effectively was drawn in to support economic recovery efforts from here onwards.
- In March 2021 the Provincial government launched the Western Cape Recovery Plan, providing the basis for a Whole-of-Society response in order to create jobs, foster safe communities, and promote the wellbeing of all the residents of the Western Cape.

This evolving regulatory and legislative environment created a number of challenges for the WCDOA and the sector as a whole, and the evaluation thus found that overall, the regulatory environment was difficult and undermining of the efforts of the Department and sector to respond effectively. In particular, the early response period was characterised by multiple examples of government regulations being inadequate, contradictory, requiring additional clarification and support within and across the government spheres and/or agricultural stakeholders. Please refer to the Review Report (pages 16 – 22) for more detailed examples of this "scramble for clarity".

External respondents confirmed these challenges, but also acknowledged that the regulations emanated from beyond the Department and to a great extent were beyond its control: *"The WCDOA did the best they could within the set of circumstances and rules they could control"*, *"Dependency on national regulations – for all of us that remains a challenge"*, *"WCDOA could not make its "own rules" – had to abide by rules set by DPSA"*.

A source of great frustration and concern expressed by an industry stakeholder was that regulations were drafted with what appeared to be a very limited understanding of the realities of agriculture and agri-processing in the Province (such as the need to harvest at a certain time, the need for seasonal employees at peak times, the need to transport stock under cold chain conditions to ports and markets etc.). This required additional lobbying and time that would have been unnecessary had regulations been drafted with greater understanding and insight and more aligned with local contexts and regional differences.

The confusion created was not limited to the external environment, but resulted in challenges within the Department itself. It was found that the development of strategic plans and frameworks - additional to the MTSF and APP - that are intended to inform responses to and the recovery from the pandemic (in particular the Targeted Hotspot Plan and the more recent Western Cape Recovery Plan) have created multiple overlapping sets of priorities and misalignments as to operational precedence e.g. in terms of reporting requirements and resource allocation. This has created additional strain on already stretched internal resources and could negatively impact certain regions (for example, resources focussed on the Winelands District hotspot at the expense of the other districts in the Province).

Notwithstanding this counter-productive and challenging regulatory environment, it is clear that the Department went to extraordinary lengths to mitigate this. Respondents overwhelmingly indicated that while the guidance and national regulations created challenges, the WCDOA

played a crucial role as a “clearing house” to interpret regulations for the benefit of other governmental spheres and industry stakeholders. The Department came to be regarded as a trusted source of needed clarity, information and answers.

In terms of institutional arrangements, engagement forums and communication channels with other spheres of government and with sector stakeholders are also found to have been an indispensable component of the efforts to gather information, mitigate confusion and coordinate responses. This took the form of opening lines of communication between the different spheres of government which enabled advocacy for changes to regulations. In terms of engagement across the three spheres of government, it was noted that the Department's involvement in the Joint District & Metro Approach and the District Coordination Forums (DCFs), which brought together the three spheres of government at the metro, district, and local levels (and their supporting Technical Forums) were key for the delivery of a coordinated effort between all levels of government, the private sector and civil society, and credited as “*essential to the Western Cape's effective response to COVID-19*”.

In terms of the sector clients and stakeholders, the stakeholder groupings, that were already in place before the advent of the COVID-19 crisis also proved to be invaluable. Here respondents noted the value of the various channels (WhatsApp groups with the different industry bodies, email communication, videos, infographics, Q&As, FAQs, feedback to DLG via the extended cabinets etc). These groupings were further extended to include new stakeholders as needed. For example, Department of Labour was not part of the “Agri stakeholder group” but needed to be involved during COVID-19 and hence this was expanded (DOH and municipalities are normal stakeholders).

From a government perspective, the WCDOA is acknowledged as having “*stood out*” by communicating the “*Love of agriculture*”, and also to have driven a successful media campaign. The WCDOA also played its role as an influencer across the spheres of government and between departments through the leadership and efforts of Minister Ivan Meyer and the HOD. An industry stakeholder, in describing the role of the Department in assisting in navigating an uncertain and confusing legislative and institutional environment said “*they were one ray of light in a very dark time*”.

3.3 The Impact of the Department's responses to the pandemic.

In this section we look at the impact of the responses implemented by the Department and evaluate the efficacy of the measures taken to secure safe and ongoing functioning internally and to support the sustaining of the sector externally. These are examined in 3.3.1. and 3.3.2. respectively.

After the national lockdown (Alert Level 5) was announced and agriculture and food supply were classified as essential services the HOD requested that an impact analysis be undertaken and to define what the WCDOA must do to ensure the continuity of agriculture and food supply in the face of the pandemic. Twenty “disruptions” and seven “impacts” on the food system related to the pandemic were identified in this process. The Department then developed its Business Impact Analysis and Response Strategy that focussed on anticipating the potential impacts of COVID-19 on internal functioning of the WCDOA and its various programmes. This resulted in actions being defined for four scenarios of disease concentration (low/high) and rates of absenteeism (low /high). These actions, while internal in nature, were motivated by the question “*what are the key things needed for agriculture to operate?*”. As such, the WCDOA response has always been an interplay between ensuring safe and effective functioning internally, but always with an external focus - on the agriculture sector and supporting its ongoing viability - and on the larger socio-economy, in terms of ensuring food security. The effectiveness of its responses focussed internally and externally respectively, is the subject of this section.

3.3.1. Impact of response measures focussed on the Department's own functioning Organisationally

The Department was decisive in assigning responsibilities and accountabilities to key roles. A "Covid Response Officer" was established immediately and this was key to the effective internal response. Lines of reporting were also clarified/confirmed, with the senior management reporting to the HOD, in turn reporting to the Minister of Agriculture, who reported to the Premier of the Province.

Health & Safety

Health & Safety (H&S) measures were implemented in accordance with the COVID-19 regulations and based on staff health assessments – *"First we identified those at the highest risk, then we identified alternative work arrangements, safety measures and started to trace contacts"*. Early investments were made in the necessary PPE and tracing and social distancing protocols were implemented. Furthermore, employees were provided with easily accessible information and awareness training, and were kept updated. These measures extended to the external offices.

The impact of the H&S response on the Department's own functioning came across as efficient from a staff perspective. This was validated by staff noting *"it was implemented with immediate effect"* and that the communication and messaging, though *"slightly overwhelming"*, were experienced as consistent with consequent staff awareness raising.

Data indicates 102 staff members tested positive within the reporting period (with a total of 3 fatalities in March, June and December 2020). Given a staff cohort of over 800 this represents a 12% infection rate which indicates effective containment of the virus's impact on employee health & safety.

Remote work and impact on performance

The first lock down from 27 March, prompted the transition to rotational/remote work. This was enabled through the existing communication network used by the Department, provision of zoom licenses (replaced later by MS teams accounts), data bundles, laptops and training.

The evaluation found that this transition stands out as having had the most significant impact on the internal functioning of the Department. It was found to be very efficient despite some delays related to staff waiting for needed IT equipment and informing some staff in rural areas where *"information flows took a bit longer"*. The transition to remote working was also well-received by staff from a performance perspective: *"remote working "worked" for us...above 90% in terms of performance despite COVID-19"*. It was mentioned as one of the measures that should be taken forward beyond COVID-19. Specific accountability and performance management measures were also implemented whereby staff had to track and record their task undertaken while working remotely. Contractual agreements were also instituted whereby key results were agreed and tracked – interestingly, this showed that some staff were clearly more productive working from home. Notwithstanding this, it was also found that this new way of working and the circumstances in general affected productivity to a certain extent and put additional pressure on people: *"There was no service we did not provide – but the kind of service may have been different."*

It is also to be noted that the transition back to "normal" working (i.e. office based) has created some tensions with staff, with questions relating to why some people can continue to work from home while others need to return to the office.

The remote working arrangements also led to an increase of innovations, creative ideas and work-around solutions. Examples include the implementation of e-signatures and the adapting of administrative and procurement processes to be able to still function in spite of staff rotations and remote working. There was also the virtual hosting of the Agri Awards Competition 2020 and the remote delivery of the Youth Intervention. The effective transition to the flexible remote working was undoubtedly a key enabler for the Department being able to continue to function and achieving its 2020 performance targets. A notable achievement over this period is that the Department was subjected to a financial audit, securing a clean audit result, confirming the effectiveness of the adaptations made in the face of a challenging work environment.

While remote working, supported as it was by MTeams, was key to the Department's successful functioning, it was also, to some extent, over-used, resulting in some staff having to endure back-to-back meeting from morning to night.

Impact on staff capacity

In terms of staff capacity, the evaluation found that due to the increased focus on the areas prioritised for response, management and staff involved in up-scaled or new activities were under extreme pressure, with other areas experiencing backlogs. The main pressure points experienced were linked primarily to new/urgent priorities and the fact that additional funding did not necessarily imply extra personnel. An example was provided by one respondent in relation to the food gardens which were funded and scaled-up dramatically, but *"needed to be achieved with the same compliment of staff"*.

Also brought to light by the increased demands placed on personnel through the crisis is the need for increasing the efficiency in programme level administrative processes (by streamlining overlapping reporting requirements) and increasing the overall functional resilience of the organisation (through more effective deployment of staff with skills relevant across programmes and greater structured cross-collaboration between programmes.).

While the entire organisation contributed to achieving an effective response, it has to be acknowledged that the senior team of the Department - including the HOD, the Deputy Director-General Agricultural Development & Support Services, the Director Business Planning & Strategy, the Chief Director Operational Support Services and The Chief Financial Officer – provided critical strategic capacity and played pivotal leadership roles throughout the pandemic.

Impact on staff well-being

The Employee Wellness Programme is a metropolitan initiative offered to WCDOA staff. The programme provided grief counselling to staff who had lost loved ones or colleagues - these engagements confirmed that the trauma surrounding the loss of colleagues and friends/family had a severe impact on the well-being of staff. The evaluation found that a number of managers pro-actively and systematically reached out to their staff specifically to ensure well-being and *"make them feel part of the family"*. It further highlighted that staff well-being stands out as an area of concern across the Department that may have attracted insufficient attention of management.

The remote work environment brought many benefits and was effective, but undoubtedly added different stresses and concerns for employees. The evaluation found that there is a need for a more consistent process of connecting with staff to ensure their well-being through a crisis of the type experienced with COVID-19. While much was done and done well in this regard (as outlined above), respondents have indicated that more could have been done to keep staff *"closer and more connected"* through more communication and engagements focussed on *"how they were doing as individuals"* rather than just their work output.

Impact on the functioning of Elsenburg College – a special case

Throughout the evaluation it was found that the College is a unique element of the larger WCDOA organisation; it has a specialised and complex environment associated with being an educational institution (training, labs, hostels, campus, internships etc.), it services paying customers (students), and it has a different profile of staff (education focussed). It was consequently also impacted differently, which suggests that a separate approach to risk management may be needed for this entity going forward.

There were challenges identified related to the protocols as they were not well suited to the realities of a training/campus environment (classes, lab work, hostels etc.). While information was displayed and the necessary controls were in place, *"many students just did not adhere to them"*, raising the risk of infection and uncertainty for students and staff when individuals tested positive for the virus. The migration of students to the e-learning platforms and a blended education model

was also not without its challenges: There were size limits for uploading document, log-in issues, and for many students from poorer families and/or in rural areas, lack of internet and/or computer access represented significant barriers to continued learning on a remote basis. The effect of these challenges was higher failure rates and social challenges for students. It appears that many students did struggle with studying remotely, missed the campus life and there were emotional and welfare issues experienced by students which college staff felt ill-equipped to address. Limited access to funding is found to have been a significant impediment to adapting the college operations more speedily and supporting students more fully.

As with other programmes of WCDOA, the Elsenburg College staff were highly innovative in the face of these challenges and motivated to deliver their courses and support their students. Learning plans were adapted, and where the official e-learning platforms were experiencing difficulties, lecturers switched to using other resources such as WhatsApp and Google Classroom. The Department also produced videos for the Research information days which were very successful.

In spite of the challenges it has faced the College has taken a decisive step towards being able to offer a fully blended learning environment with great potential to develop and offer an array of online courses in the future.

Conclusion

Internally, the Department was found to have been successful in creating a safe internal work environment, an efficient transition to remote work and maintaining critical services and functions. Adverse impacts are noted in relation to staff capacity and well-being and in the functioning of the College, which, may require its own specific risk management processes that reflects its unique operating context within WCDOA.

3.3.2. Impact of the response measures focussed on the provincial agricultural sector

As already noted, the securing of the internal functioning of the department was always ultimately motivated by the need to support the sector through the crisis and to ensure food security (particularly in vulnerable communities) in the province. As the pandemic continued, new sectoral challenges were brought to light and incorporated within the portfolio of responses. The emphasis at both national and provincial levels shifted to minimising negative economic impacts and supporting economic recovery. As such the Department's external responses evolved and supporting economic recovery (and limiting economic damage) to the sector became a cross-cutting theme of the Department's efforts. For the purposes of this report the interventions made by the Department are grouped broadly under, protection of food security, general industry support, economic support, job creation and wine industry support. These are "unofficial" groupings and are used here to help clarify, categorise and report on the wide array of activities undertaken. It is acknowledged that there is overlap between them.

Food security

Food gardens & humanitarian relief

The prioritisation at provincial level of humanitarian relief and food security demanded strong partnering and collaboration across Government departments as well as with civil society and the private sector. As a humanitarian response, the immediate focus was on provision of food through food parcels and soup kitchens, and over time, as the Department realised its strengths lay in supporting food production rather than distributing food parcels, this moved to efforts to improve food security through home and community level food production.

The WCDOA's role in the interventions focussed on an upscaling of the provision of food gardens to households and communities across the province. The focus of these interventions was to address the longer-term aspect of food security, particularly in vulnerable communities. To ensure sustainability, the Department extended advisory services on a continuous basis to the benefits of these initiatives. The WCDOA also developed the home-grown seed package as part of the "One

Home One Garden" initiative to stimulate and enhance the mass production and consumption of home grown food in support of food security.

The interventions need to be distinguished between those which occurred within the Hot Spot Strategy – where the WCDOA was the lead Department (the WCDOA played a pivotal role in the coordination of the cross-cutting response in the Cape Winelands District Hotspot strategy as Chair of the Cape Winelands Hotspot Cluster Committee) with responsibility for the Cape Winelands District, and the ramping up of the "One Home One Garden" Initiative where the WCDOA contributed to the establishment of over eighty household food gardens through the distribution of starter packs consisting of 150 vegetable seedlings, fertiliser and advice on production practices such as planting, tending and harvesting of vegetables.

The evaluation found significant uptake resulted: Household gardens grow from 800 to 5 626, Community gardens from 62 to 132 and school gardens from 14 to 43. The food gardens interventions of the WCDOA were thus found to have a significant impact especially within communities and at household level as they support the efforts of vulnerable groups to protect their livelihoods and increase resilience, have wider benefits via procurement of services and supplies from local contractors, and have significant and demonstrated replication potential.

As part of addressing food security challenges within vulnerable communities humanitarian efforts involved coordinating and mobilising resources from the Regional Coordination Committee and other stakeholders for soup kitchens. The Department was in this connection noted for "*playing a critical role*", as well as Minister Meyer and Dr Sebopetsa were credited for their ability "*to mobilise support*".

BFAP tracker

The WCDOA closely monitored food supply, affordability and trade via the BFAP Agri-Tracker/Trade-Tracker/Food-Affordability. The Department was instrumental in the establishment of BFAP together with the Universities of Stellenbosch and Pretoria as a dedicated Agriculture Economies Research institution. The evaluation found that the BFAP information, provided as it was by an established, highly credible institution, with established links with WCDOA, was of great value in a crisis situation where reliable data was required to monitor food value chain performance and food security risks. The BFAP briefs also gained new traction as resource documents for a growing number of enquiries submitted by agricultural industry stakeholders.

The evaluation found that, while the BFAP tracker gave important and valuable insight into the formal value chains and markets, there is, however, no equivalent data collection and analysis resource in place to measure food availability and pricing (and alert to the risk of food insecurity) in the informal settlements (reliant largely on the informal traders and markets) and this resulted in a degree of "blindness" for those wanting to better anticipate risks to food security, including the Department.

General industry support

FAQ – interpreting legislation

As discussed in Chapter 3.2 one of the immediate internal departmental responses to the confusing regulatory environment was the preparing and updating of a Frequently asked Questions (FAQ) resource prepared by the Department and vetted by Legal Services. The FAQs were aimed at anticipating and responding to questions from the sector particularly in light of South Africa's Risk Adjusted lock-down levels. While the detail evolved as the regulatory environment evolved, specific clarity on the implications of regulations was provided for subject covering general and food security, permits, agri-workers, marketing of farm products, running the farming business, provision of inputs and support services to farmers, veterinary services and animal health, and on-farm social activities. The FAQ updates were posted on the Department's website and appeared on many of the industry body websites (SATI, Hortgro, VINPRO etc.) and those of other organisations associated with the sector such as SIZA.

The evaluation found that the FAQ resource was crucial in providing the sector with needed clarity in the interpretation of the lock-down regulations and played an important part in assisting farmers, industry bodies and the sector as a whole continue to function in spite of the evolving and confusing regulatory environment.

Permits for farmers and workers

Another issue the WCDOA was heavily involved in was the continued challenges with transportation of agri-workers under the lock-down regulations. In addressing this, the WCDOA deployed both immediate actions through, for example, direct engagement with law enforcement (which tended to pursue a rigid implementation of the travel restrictions)) and proactive actions that included for example, submitting Ministerial letter 4 to the DALRRD with a request for future allowance for the repatriation of seasonal workers on humanitarian grounds after the harvesting season - to which the government response included making provision for a once-off travel between provinces for a specific period of time.

The evaluation found that this role and the intervention made were greatly appreciated and valued by the sector at large: *"...the free (and safe) movement of agri workers is of paramount importance to the sector's continued operation and the Department took on this task"; "...the issuance of travel permits involved engaging with law enforcement and being on 24/7 stand-by to help solve on-the-ground issues", "...this was another significant response measure which helped the cross-border movement of seasonal farmworkers and enabled thousands of workers from rural Eastern Cape to return to the province in the safest possible manner".* The Department's efforts and willingness to "go out of their way" was recognised by the sector and evidenced by the number of requests for support with permits from the wider sector.

Health & Safety equipment

Externally, the WCDOA engaged with existing networks of stakeholders to disseminate relevant health and safety information including infographics on mask use and hygiene to assist agri-workers and employers to deal with the health and safety realities of the pandemic. Furthermore 100 000 face masks were procured by the Department and provided to farmers in the Western Cape – distributed directly to farms or via collection at regional cooperatives.

The evaluation found that the Department's efforts to support health & safety made a material contribution to enabling ongoing farming and agri-business operations while maintaining health & safety. Key aspects in support of this finding include; the safety and advocacy campaign run in collaboration with Agri Western Cape and Cap Agri which ensured a wide audience was reached, the early procurement and distribution of PPE to stakeholders, including farm workers, and broad recognition by stakeholders of the Department's key role in providing this support.

Economic support & relief

Engagement

A broad array of industry stakeholders were engaged including the Cape Chamber's Agribusiness Portfolio, Minister Meyer's meeting with stakeholders, the Prestige Agri Worker Forum and the Economic Work Group and the Food Security Working Group. Online Stakeholder Engagement Meetings (formed around the Western Cape Agriculture Stakeholder Group) that included the various growers associations and other industry role players also took place on a weekly basis. These meetings were coordinated by DDG Daryl Jacobs who was assigned responsibility for client engagement. Key issues being experienced by clients were identified through this forum. The evaluation found that these engagements are regarded as having been critical in that they allowed information to flow, cross-learning between parties, joint problem identification and solving.

The evaluation also found that industry stakeholders would have valued these forums being initiated much earlier in the pandemic as they became indispensable as channels to *"separate fact from fiction"* and to allow the pandemic, its causes, impacts and required responses to be

clearly articulated. This was highlighted as particularly important given the rapidly evolving scientific information that was being made available and the “unprecedented levels of misinformation that accompanied the crisis”. The stakeholder meetings also provided the catalyst for greater collaboration between industry bodies, including the pooling of information resources to share with their constituencies.

Advocacy

The evaluation found that the Department played a vital advocacy role in support of the sector, most notably on behalf of the wine industry and cut flower industry. Both were classified as non-essential industries and were thus unable to harvest, process and market their products (the wine industry support is discussed in greater detail below). More generally, the WCDOA, through the Ministry of Agriculture, played a vital advocacy role by way of raising issues and appeals with the relevant National Departments, facilitating dialogues with the National Ministers of Health and Agriculture, and providing letters of support as needed. These efforts resulted in many needed modifications to regulations and assisted in reducing the negative impacts on the sector.

The Department also provided strategic inputs to the Provincial Treasury on the post COVID-19 recovery strategy highlighting recovery scenarios applicable to the agricultural sector. It further specified requirements for an enabling environment (policy level) and identified possible internal innovations (e.g., drone training and paperless work environment), as well as external innovations (e.g., e-commerce training for farmers, bulk communication and development of digital tools and virtual events) that could be implemented within both short- and long-term recovery timeframes. While the evaluation is unable to judge the impact of such presentations on policy development, it is clear that, as discussed in Chapter 3.2, the regulatory context plays a vital role in the functioning, well-being and resilience of the sector, and any process such as this, that is sympathetic to the realities and needs of the sector, are to be welcomed.

Job creation

Ecological infrastructure

The Ecological Infrastructure programme was identified as an area where a scaling of existing activity would create immediate and additional job opportunities for vulnerable community members. The scaling of ongoing effort entailed the provision of extra budgetary resources, which could be leveraged rapidly within an existing operational framework to create jobs. Within the Winelands Hot Spot Strategy R4 502 131 was allocated while across the Province, R17 million was allocated for additional ecological infrastructure projects. The evaluation found that the programme was successful overall, focussed on areas with higher levels of unemployment and that 1056 jobs were reported as having been created through these efforts.

Lucerne Plots

As part of efforts to support job creation, a Project was implemented in Ebenhaezer to establish 80 lucerne plots. This was a short-term response (additional) from equitable share. The budget was R9,6 million, and the evaluation found that an estimated 80 jobs were created.

Wine Industry support

The wine industry has been significantly impacted by the pandemic due to being classified as a non-essential industry, alcohol bans, inability to export as well as loss of wine tourism revenue. Given the challenges experienced by the wine industry, the WCDOA worked closely with VINPRO to design and implement a range of measures to support the industry through the COVID-19 crisis.

Wine Tourism Workers Stipend

The purpose of the Wine Tourism Worker Support Stipend was to safeguard the permanent employment of wine tourism workers by subsidising their salaries for a key quarter of the tourism calendar. The evaluation found that the stipend scheme was successfully implemented by VINPRO: 1362 employees (tasting room workers) were impacted to a value of just over R12 million.

The stipends offered significant relief to wine businesses and their employees, protecting the jobs and livelihoods of their employees in a critical period of the year.

Wine Farm Producer and Brand Owner Protection Support Grant

The WCDOA, together with VINPRO, designed a support scheme entitled: Transformation Farmer and Brand-Owner Protection Relief Grant. The grant scheme was developed with the purpose of assisting wine farms and wine brand businesses, showing significant transformation gains over the past few years, with financial support for their ongoing business costs. Provincial Treasury provided R8.5million and WCDOA added a further R5 million (through a reallocation of budget) to the grant fund, which was managed by CASIDRA. The evaluation found that, through the two application rounds, 36 wine businesses/brands were assisted (an average of R375 000 per business). The impact of the allocations is challenging to assess without going deeper analysis of the impacts on each of the farms/brands. However, feedback from wine industry respondents indicate that the impact of the funding was very positive.

Conclusion

Externally, the different response measures were found to impact both local and sector levels and contributing to food security, supported the sector, provided economic support and relief, assisted in job creation and provided specific support to the wine industry. The impacts from the Department's ability to address underlying and industry specific stressors was acknowledged and appreciated by stakeholders across the sector.

4. The implicit Theory of Change

As detailed above, the WCDOA's internal and external responses to COVID-19 were interventions in response to an unanticipated crisis. No specific contingency plans were in place and no explicit Theory of Change (TOC) existed. Given that the evaluation has been undertaken it is possible to craft an implicit TOC, that, with the benefit of hindsight, is able to document the implementation logic and causality that lay behind the interventions introduced and the outcomes achieved (and those being pursued). This is presented in Figure 3 below and details the internal response to the crisis, how this flowed through to its external responses and how these link to the achievement of the outcomes (aligned with the seven impact areas defined in the Department's first impact assessment at the onset of the crisis), these, in turn, linking to the longer term outcomes of a stronger Department and sector emerging from the crisis and better equipped to deal with disruptions events of this nature in future.

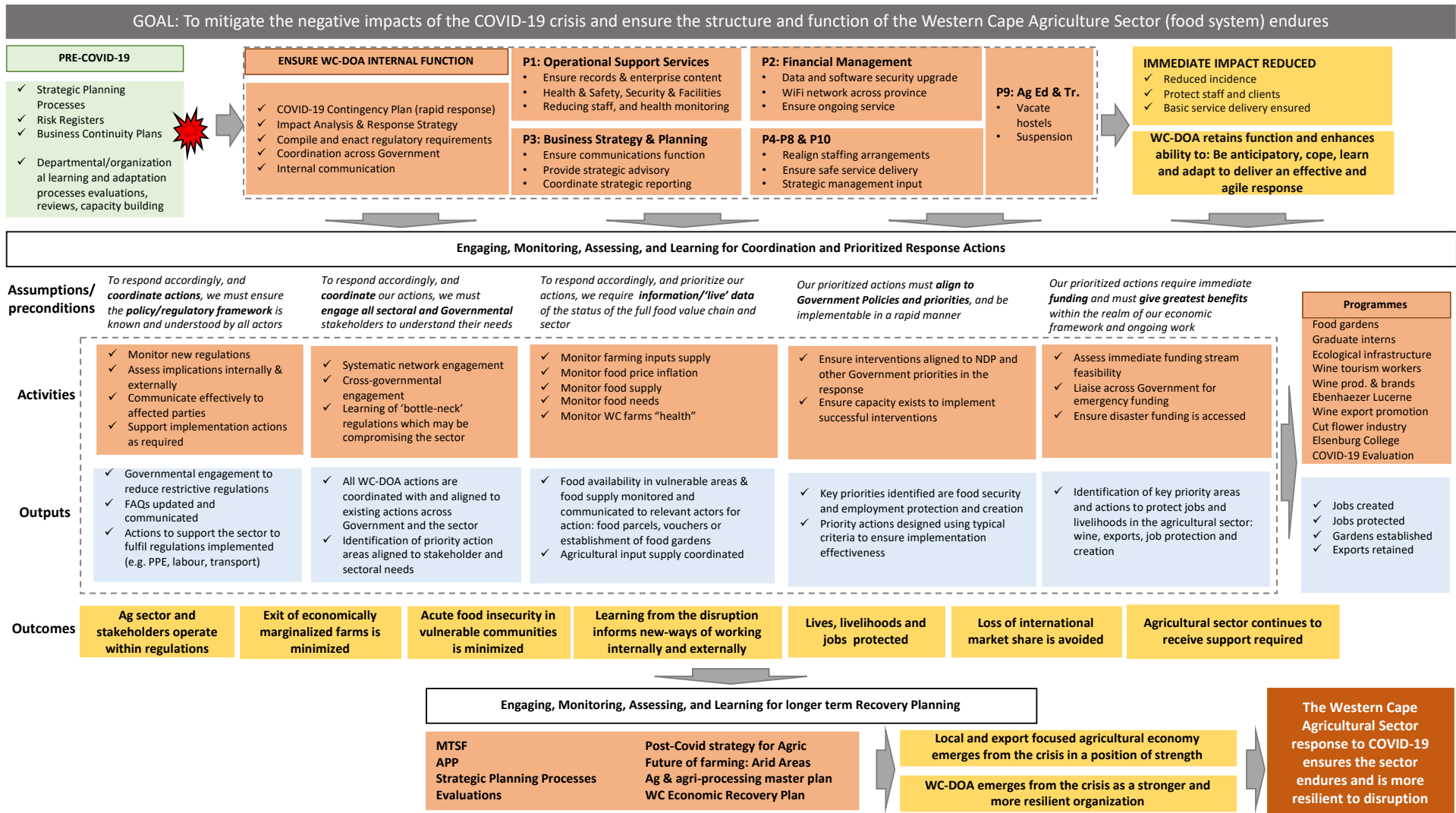


Figure 3. The implicit Theory of Change

5. Lessons for the future

In this section a summary is provided of “lessons” and “insights” arising from the evaluation that should be considered in the formulating of a risk management approach for the Department going forward. It draws on lessons learned from the WCDOA's response to the pandemic, lessons from risk and resilience theory, and lessons “from the field” – from government and agri-sector responses from other parts of the world. These are presented in Chapters 5.1, 5.2 and 5.3 respectively.

5.1 Insights from the Department's response to the COVID-19 crisis

This section is presented in two parts; firstly, a summary of key lessons learned from the Department response to the COVID-19 pandemic, particularly as they relate to crisis/risk management in general (5.1.1.), and secondly, a further distillation of the lessons into a SWOT framing – very much with a forward looking perspective (5.1.2.).

5.1.1. Key lessons learned

The lessons learned are hereunder grouped according to crisis/risk management “elements” that were evident in the Department's response to the pandemic (Table 1). The “elements” represent important aspects of crisis or risk management that manifested in the Department's response and which should be retained or incorporated within a future risk management process. Against each of these “elements” specific aspects of the Department's response that were either positive (enhancing) or negative (retarding) of the “element” are highlighted.

Table 1: Key lessons learned – structured according to “elements”.

Essential “elements” of good crisis management...	Explanation	Specific positive (+) or negative (-) aspects of the WCDOAs response related to each “element”.
Early detection	The earlier a potential crisis/risk is detected the sooner it can be responded to.	<ul style="list-style-type: none"> - There was a COVID-19 “blind spot” in spite of thorough risk assessment processes – delayed the initial response - The scope and scale if the impact on the sector was not anticipated.
Rapid sense-making	The sooner the crisis/risk and its impacts is understood the sooner it can be responded to	+ Rapidly analysed and understood the disruptors and impacts on the Department and the sector – underpinned an effective early response
Open lines of communication	Open lines of communication internally and with external parties is critical	<ul style="list-style-type: none"> + The existing internal communications infrastructure and capability (the Elsenburg wifi/radio network). + Existing Internal and External communications/engagement forums
Decisive leadership action	Decisive leadership is required to make decisions, define tasks, assign responsibilities etc.	<ul style="list-style-type: none"> + Clear leadership “from the top”. + Emergency structures and communications channels put in place quickly. + Key responsibilities and tasks assigned quickly. + Developed initial response plan
Preparation	Preparation pays – responses can be developed with a higher degree of anticipation and readiness.	<ul style="list-style-type: none"> + Established situational assessment and risk assessment processes in place. + Contingency plans developed - provided an initial guide to responses. - No pre-emptive contingencies/scenarios in place with sector stakeholders (none identified).
Organisational culture	Culture determines the levels of goodwill and willingness to go the	<ul style="list-style-type: none"> + Clear evidence of an empowering WCDOA culture. + Staff going above and beyond – both internally and externally.

Essential "elements" of good crisis management...	Explanation	Specific positive (+) or negative (-) aspects of the WCDOAs response related to each "element".
	extra mile in an organisation.	
People	People make the difference - all actions rely on the organisation's people and the same people can be impacted by the crisis.	<ul style="list-style-type: none"> + Health & safety of employees secured early on. + Staff equipped with airtime and computers as needed to be effective - More could have been done to ensure ongoing staff well-being and support through the trauma and disruptions of the crisis. Regular communication is key to this and many staff do not have email thus largely fell beyond communication and engagement efforts.
Established & good relationships	Good relationships underpin trust, open communication, pooling of resources etc.	<ul style="list-style-type: none"> + Internal structures and forums in place + Structures with sector stakeholders largely in place and functioning. + Transversal provincial and local government structures in place/established (Joint district Management) - Trust deficit/weaker relationships with National government departments.
Shared vision & understanding	A shared vision and understanding is critical to galvanizing and aligning actions between parties.	<ul style="list-style-type: none"> + The MTSF and APP provide strong strategic alignment internally. - Unclear on degree to which other spheres of government and sector stakeholders are aware of/aligned with the WCDOA strategic vision & outcomes. - No sector-wide risk framework against which to assess risks, build understanding, prioritise responses etc.
Good data	Access to reliable and timeous data/information is critical.	<ul style="list-style-type: none"> + BFAP resource/relationship provided a needed reliable data/information source. - No reliable data to track the food basket in informal settlements/informal market. - WCDOA databases operate in silos (not integrated) and not easily access in the event of a crisis.
Flexibility	The ability to adjust and adapt as needed is key	<ul style="list-style-type: none"> + WCDOA able to depart from predefined operational and contingency plans. - No resource matrix in place to identify skills that can be deployed across different programmes/provide back-up in the event of a crisis.
Context specific responses	The ability to tailor responses to be suited to specific/different contexts.	<ul style="list-style-type: none"> - Elsenburg College is a unique operational context that needed more context specific contingency plans and responses.
Interpretation & clarity	Bringing clarity to rapidly evolving regulatory environment is critical	<ul style="list-style-type: none"> + FAQ's provided needed clarity both internally and externally. + Making relevant experts available to stakeholders – to ensure reliable/accurate information shared.
Financial means	The ability to access needed funds / make funds available is key.	<ul style="list-style-type: none"> + Ability to adjust, reallocate, secure additional budget - Overall budgets constrained and limited contingency funds available.

5.1.2. SWOT analysis

The lessons derived from the evaluation are further distilled into a SWOT framing (Table 2) for the purposes of identifying key strategic considerations for the Department's risk management processes going into the future – particularly related to the anticipation of and response to disruptive events.

Table 2. Internal Strengths and Weaknesses and External Opportunities & Threats related to risk management for the WCDOA going forward.

INTERNAL STRENGTHS	INTERNAL WEAKNESSES
<ul style="list-style-type: none"> • An effective organisational culture that supports a “can do” approach/teamwork • Strong leadership and empowered senior managers and staff. • Compassion and care of the senior leadership towards employees. • A culture of citizen focussed service – true civil servants. • Well qualified/experienced people in key positions. • Internal communications network (elsenburg.com) and digital infrastructure. • Established relationships with sector clients and stakeholders. • Financial flexibility – ability to reallocate financial resources (willingness to find financial solutions). • Financial management & control – robust controls / clean audits. • Embedded processes of risk management, evaluations, strategic planning and continuous improvement • Ability to react quickly – agility. • Workplace flexibility – ability to continue functioning in a highly disrupted work environment. 	<ul style="list-style-type: none"> • “Regular” risks monitored but limited proactive scanning for “unknown unknowns” or “black swan” type risks. • Limited systematic and holistic risk scanning and assessment processes for the sector as a whole (and with the inputs of key sector stakeholders) • Personnel in narrow/rigid roles – limited flexibility to adjust roles • Over reliance on a small number of key people. • Multiple independent databases – no capacity to integrate multiple data sources. • Employee engagement historically has been very operational (good at talking numbers, plans etc.) and not enough engagement with employees as people facing mental health issues and trauma caused by a crisis – these “soft skills” do not come naturally in the WCDOA’s operations focussed environment.
EXTERNAL OPPORTUNITIES	EXTERNAL THREATS
<ul style="list-style-type: none"> • The transversal risk management structures linking WCDOA, local and provincial government departments (break silos and support greater cross-collaboration). The Joint District & Metro Approach is now fully functional and following a “whole of government” and whole of society” approach. • Clients and Stakeholders hold WCDOA in high-regard / have confidence in the Department (goodwill) • The WCDOA’s COVID-19 success stories can be channelled to civil society via mainstream media and position it for Disaster/Risk Management funding opportunities. • Incorporation of risk management strategies into partner collaborations can strengthen adoption of cross-sectoral risk management processes. 	<ul style="list-style-type: none"> • Occurrence of a multi-dimensional crisis (combination of crises creating a “perfect storm” scenario that overwhelms WCDOA capacity). • Sub-optimal relationships with National Government Departments. • Lack of coordination between Government Departments when facing a major crisis that impacts multiple departments (for example, agriculture, health, finance, social welfare etc.). • Government departments / spheres of government fall back into old habits of silo working and limited transversal communication and collaboration. • Crisis response regulations imposed “top-down” with little/no consultation. • National government creates and implements support programmes in a “top down” way

EXTERNAL OPPORTUNITIES	EXTERNAL THREATS
	<p>ignoring regional/contextual differences and priorities. Results in ineffective implementation and unintended consequences.</p> <ul style="list-style-type: none"> • Lack of knowledge/understanding of the dynamics of the sector and the details of the agriculture across all the different industries – leads to inappropriate and uninformed responses from Government in times of crisis. • Political mistrust between Western Cape as a DA run Province and ANC National Government. • Constrained fiscus and budgets for the WCDOA. • Slow budgetary and strategic decision making processes at National level.

5.2. Risk management – relevant lessons from theory

A review of scientific literature on risk and crisis management resulted in the identification of a number of relevant theoretical insights and lessons that should be considered in the formulation of risk management processes going forward. These are summarised in Table 3 with a fuller account of the theoretical insights provided in Annex H.

Table 3. Insights and lessons from theory

Theoretical Insights	Relevant Lesson
<p>From Ansell and Boin (2019), Clarke (1999) and Turner (1994): Crises can be distilled into two main classes: those that are the “unknown unknowns” and those that are “known unknowns”. The latter would constitute more routine emergencies that would form the basis of conventional risk management approaches. The “unknown unknowns” pose a far greater challenge to risk management: It is much harder to prepare for crises and disasters that do not happen often and unfold in unforeseen ways.</p>	<p>The post covid-19 pandemic risk management process that the Department adopts should be geared to endow the Department (and the Sector) with greater capacity to deal with deep uncertainty and crises that fall into the class of “unknown unknowns”.</p>
<p>From Hoekstra et al (2018): Two main approaches, or rationales, can be distinguished for the management of systems under conditions of great uncertainty; control and resilience. In the control rationale, the aim is to manage a system for performance of one or a few variables of interest. In the resilience rationale, on the other hand, the aim is to manage a system's capacity to avoid or handle regime shifts that impede its continued functioning.</p>	<p>The post covid-19 pandemic risk environment will be characterised by increased levels of uncertainty. As such any risk management process that the Department adopts should be informed by the resilience approach, rather than the control approach.</p>
<p>From Boin and Bynader (2015): When disaster strikes, government must improvise to organise a response, regardless of the levels of prudent planning or careful anticipation of events. Large scale disasters are simply too complex, and the events too disruptive to expect planned responses</p>	<p>Risk management process that the Department adopts should explicitly integrate the capacity for the appropriate use of top-down AND bottom-up elements in the formulation and implementations of responses.</p>

<p>(top-down) to carry the day, and require the appropriate integration of emergent collaborative (bottom-up) approaches.</p>	
<p>From Ansell and Boin (2019) and Boin and Bynader (2015): Four core tasks are delineated when managing crises in the face of deep uncertainty; sense-making, critical decision-making, coordination & meaning-making. These tasks are not easy to perform, particularly in situations of great uncertainty. Four <i>pragmatist principles</i> are thus proposed to guide strategic crisis managers as they implement these key actions: accepting fallibility, embracing complexity, experimentalism and bricolage.</p>	<p>To cope better with “deep crisis” the risk management processes that the Department adopts should integrate elements of the pragmatic principle led approach in the formulation and implementation of response strategies.</p>
<p>From Ungar (2018) and Williams et al (2017): A proposed way to strengthen theory of organizational functioning under adversity is the integration of crisis management (i.e., the efforts to return organizations and systems to normal functioning after a disruption) and resilience (i.e., the ability to maintain reliable functioning despite adversity). It is suggested that linking crisis management and resilience may provide a more complete understanding of organization–adversity relationships and to see resilience as a strategic process to deal with uncertainty and develop the capacity to cope with unanticipated dangers and to “bounce back”.</p>	<p>Risk management process that the Department adopts should integrate the concept of “resilience as a process” into the design and functioning of risk management processes</p>

5.3 Key lessons from the field

Mishra (2020), in his reflections on Risk Management lessons from how the pandemic was responded to and managed in India, provides a useful bridge between theory and practice. He highlights the following key lessons:

- A key success factor was **constant communication between different parts of society** – central and state government and between government and civil society
- There is a need for a **more dynamic risk assessment tool** to provide sufficiently granular, context specific, current (real-time) and accurate information for decision makers as the crisis unfolds.
- **There is no substitute for community action** – government provides the enabling/supporting environment to allow citizens to actively participate in the response.
- **Risk is global, resilience is local** - this has two implications: one, there is a need for greater investment in local level resilience and self-reliance and two, even greater international cooperation towards fighting a global disaster.
- Need to **move from managing risk to managing uncertainty**. Policymakers have to make decisions under great uncertainty. The traditional disaster risk management paradigm is attuned to using the analyses of past events, to quantify risk and devise risk management strategies for the future.
- Need to **move from managing risk to building resilience**. We have to focus on systemic resilience by building redundancies, by developing strong feedback mechanisms and by investing in stronger modular systems at the local level.
- Key areas that need to be focus going forward:
 - A further strengthened disaster risk management system, particularly at the local level
 - Resilient infrastructure including social, economic and environmental

- Resilient financial system with equitable access to savings, credit finance and insurance
- Social protection especially for those in the informal economy
- Sustainable natural resource management

Tables H1 and H2 in Annex H provide a summary of the learnings from other government responses. Please also refer to the Review Report that was prepared as part of this evaluation, and from which these learnings are synthesised.

6. Key risks that should be on the Department and Sector’s radars

A key aspect of this evaluation is to understand the nature and type of disruptive risks that could be faced by the Department and its stakeholders over the next decade. Please refer to Annex ccc for a detailed examination of these risks, which provides an important diagnostic component to the development of a strengthened risk management approach (the subject of Chapter 7).

6.1. A disruptive risk typology

Given that the focus of this evaluation is on **disruptive** risks, predicting the level of disruption in risk assessment is based on an assessment on a likelihood/impact criteria trajectory. Therefore, both systemic shock events as well as stressors (slow onset events such as a drought) can be regarded as disruptive if their impact is high. The important aspect is whether the risk is being monitored, and hence mitigated, and that the preparedness for potential disruptive risks is in place. Please refer to Annex I for presentation of a disruptive risk typology (From Lam, 2019 and Wisdom Project, 2021) that serves to exemplify disruptive risk types, the challenges associated with each and the risk management strategies that should be followed in response.

6.2. General remarks on risk

As the global economy and society becomes more connected, as global issues such as climate change and shifts in the geopolitical order occur, and the dynamics and feedback loops between the different components of this interconnected system change, so the specter of systemic shocks - that occur with little warning and with devastating impact – grows. The recent invasion of the Ukraine by Russia is a harsh reminder of our connectedness and collective vulnerability.

Historically, risk management has typically followed a reductionistic approach - defining lists of potential risks and preparing response measures that can be drawn on and implemented as and when a risk of a particular type is identified. These measures prove to be wholly insufficient in dealing with the non-linear complex system that characterizes modern day economies and societies. COVID-19 has served to bring these shortcomings sharply to the fore. Risk management, if it is to be effective, needs to reduce reliance on these reductionist methods and incorporate systems-thinking based approaches that are holistic in nature, are designed to enhance resilience and adaptive capacity, be capable of early detection and “sense-making” of risks as they emerge, and are agile and rapid in the formulation and implementation of responses. While the risk “portfolio” described in this chapter and detailed in Annex I remains valuable as a tool to avoid blind spots and to better anticipate risk impacts, Chapter 7 proposes changes to the Department's risk management processes to one that integrates a systems approach.

7. A framework for risk management going forward

7.1 Risk and Resilience Management Framework

A proposed “Risk and Resilience Framework” is presented in Figure 7. It sets out a holistic risk and resilience management process that seeks to incorporate the insights, findings and lessons arising

from this evaluation. The implementation of such a framework would require a minimum of 5 key interventions:

Intervention 1: Adopting an ongoing systemic risk management / adaptive process.

Intervention 2: Strengthening and/or establishing the needed internal and external risk management networks and forums.

Intervention 3: Adopting a holistic (systems) conceptual framework that represents all the key components and interconnections within the system included within the risk and resilience management process.

Intervention 4: Ensuring linkages and alignment between the Department's Strategic Outcomes and the risk management processes, holistic framework and networks & forums.

Intervention 5: Leveraging the core capabilities and capacities to ensure an "enabling environment" for a proactive risk and resilience management process.

Each intervention is discussed in greater detail in Annex J. In developing these details, consideration is given to specific elements relating to activities within the Department itself, and those required within the external environment – within the sector at large.

8. Conclusion

The COVID-19 global pandemic has been described as the most disruptive event in modern history. It has posed unprecedented health, economic and societal challenges to all nations and governments. The Western Cape Department of Agriculture has been on the front-line and played a pivotal role within the agriculture sector, and the province at large, in the formulation and implementation of an effective response strategy. The responses deployed not only allowed the Department to function internally but provided indispensable support to the sector that it serves. Notable throughout the evaluation is the sense, confirmed by clients and stakeholders, that, in the face of an extreme crisis, the Department revealed a depth of capacity and a culture of citizen-centred caring and service that manifested in it going "above and beyond the call of duty".

True to this culture, the Department has chosen to regard the crisis and its aftermath as an opportunity for reflection, learning and strengthening towards its vision of an economically prosperous, inclusive and resilient agriculture sector in the Western Cape. Through the identification of lessons learned, and the putting forward of a Risk and Resilience Management Framework, this evaluation gives effect to the Department's desire to fully exploit the opportunity that COVID-19 has presented to strengthen its and the sector's capabilities to successfully navigate an operating environment that will, undoubtedly, be characterised by an increasing occurrence of little anticipated, poorly understood and high impact disruptive events.

The catastrophic events in the Ukraine and its global knock-on effects that are playing out currently, serve to starkly expose the true nature of this "normally abnormal" world that is the post-pandemic world, and underscore the importance of the Department's efforts to craft more robust, sensitive and effective processes to protect and build resilience across the sector.

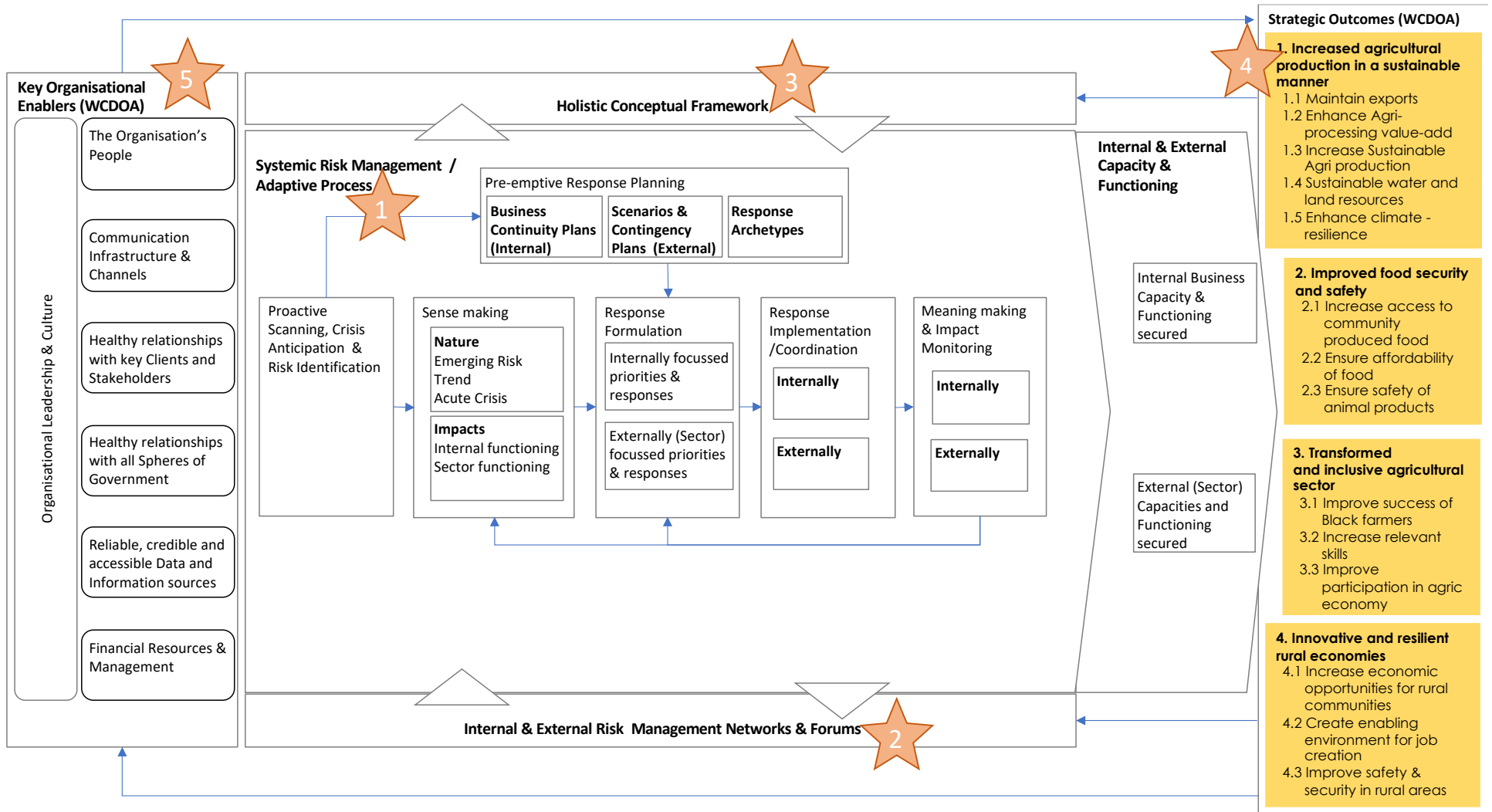


Figure 4. Risk and Resilience Management Framework.

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Annexures

Annex A: Departmental Evaluation Steering Committee

Table A1: Members of the Departmental Evaluation Steering Committee (DESC).

Name and Surname	Organisation
Dr Dirk Troskie	WCDoA
Dr Ilse Trautmann	WCDoA
Shelton Mandondo	WCDoA
Darryl Jacobs	WCDoA
Rashidah Wentzel	WCDoA
Johan Roux	WCDoA
Gininda Msiza	WCDoA
Bongiswa Matoti	WCDoA
Dr Harry Swatson	WCDoA
Douglas Chitepo	WCDoA
Brighton Shumba	WCDoA
Loretta Cox	WCDoA
Thandiswa Koyingana	WCDoA
Kevin Kelly	SEAD
Juanita Isaacs	WCDoA
Meghan Cupido	WCDoA
Floris Huysamer	WCDoA

Annex B: Stakeholders Interviewed

Table B1: Internal respondents and their respective affiliations/roles.

Name	Affiliation / role
Ashia Petersen	Programme Manager: Sustainable Resources and Management
Bongiswa Matoti	Director: Agricultural Economics Services
Brighton Shumba	Deputy Director: Rural Development/ Rural safety
Dr Dirk Troskie	Director: Business Planning and Strategy, Steering Committee member
Darryl Jacobs	Deputy Director General: 8. Agricultural Development & Support Services, Steering Committee member
Floris Huysamer	Chief Financial Officer
Gertrude Jacobs	Acting Director: Rural Development / Agriculture Workers
Hayley Rodkin	Chief Director: Agricultural Education and Training
Dr Harry Swatson	Director: Agricultural Skills Development (retired)
Hennis Germishuys	Extension Officer: Agricultural Producer Support and Development
Dr Ilse Trautmann	Deputy Director General: Research and Development Services
Jerry Aries	Acting Chief Director: Agricultural Producer Support and Development /Farmer Support/food gardens
Johan Koen	Asset Manager/ Acting Supply Chain Manager: Financial Management
Loretta Cox	Operational Support Services
Malissa Murphy	Lecturer at Elsenburg College
Dr Mogale Sebopetsa	Head of Department
Rashidah Wentzel	Chief Director Operational Support Service. WCDOA Compliance Officer
Vincent C Henwood	Deputy Director, Veterinary International Trade Facilitation, Department of Agriculture
Werner van Zyl	Manager Internal Controls: Financial Management

Table B2: External respondents and their respective affiliations/roles.

Name	Affiliation / role
Andricus vd Westhuizen	Chairperson of the Standing Committee on Agriculture, Environmental Affairs and Development Planning
Elize-Marie Steenkamp	Covid-19 coordination & response manager , Hortgro
Clayton Swart	Covid-19 coordination & response manager, South African Table Grape Industry (SATI)
Graham Paulse	Head of Department. Department of Local Government
Jannie Strydom	Chief Executive Officer, Agriculture Western Cape
Nico Uys	Chairman, Red Meat Producers Organisation (RPO)
Piet Kleyn	Chief Executive Officer, South African Ostrich Business Chamber (SAOB)
Rico Basson	Chief Executive Officer, VINPRO
Siobhan Thompson	Chief Executive Officer, Wines of South Africa (WOSA)
Tracy Davids	Manager: commodity markets and foresight. Bureau for Food and Agricultural Policy (BFAP)
Dr Wayne Smith	Head of Emergency Medicine. Dept. of Health
Wimpie Paulse	Chairman, The Prestige Farm Worker Forum
Zeenath Ishmail	Chief Director Strategic Management Information, WC Premier's Office

Annex C: Evaluation Team Composition

Table C1: The Blue North Evaluation Team and their respective roles.

Team member	Role
David Farrell	Project leadership, Stakeholder engagement, Research, Theory of Change development, analysis and report writing, quality control
Dr Myles Oelofse	Research leadership, Stakeholder engagement, Research, Theory of Change development, analysis and report writing, quality control.
Anne-Katherine Scharling	Research leadership, Stakeholder engagement, Research, analysis and report writing, quality control.
Caria Wessels	Researcher, Analysis, Report writing
Natasha Atkinson	Researcher, Analysis, Report writing, Project administration

Annex D: OECD-DAC (2021) Evaluation Criteria

Note: the revision of the OECD-DAC criteria highlights two core principles for their use – focussing on the appropriate use of the criteria which must be aligned to the needs of the relevant stakeholders and within the specific context of the evaluation. The principles attempt to avoid a mechanistic utilization of the criteria, and the use of each will be based on relevance to the context. This is particularly appropriate, given the COVID-19 response is not a typical program. However, the criteria offer useful guidance to nuancing the assessment of the various elements of the response.

- **Relevance: Is the intervention doing the right things?**
 - Assesses the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change.
- **Coherence: How well does the intervention fit?**
 - The compatibility of the intervention with other interventions in a country, sector or institution.
- **Efficiency: How well are resources used?**
 - The extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way.
- **Effectiveness: Is the intervention achieving its objectives**
 - The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups.
- **Impact: What difference does the intervention make?**
 - The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects.
- **Sustainability: Will the benefits last?**
 - The extent to which the net benefits of the intervention continue, or are likely to continue.

Annex E: Strategic outcomes and response measure impacts

Table E1: Impacts of response measures under Strategic Outcome 1.

Evaluation criteria	Wine and cut flower industries	Direct farm support	Issuance of travel permits	Alien vegetation clearance project
	New	New	New	Existing
Priority	Cont. functioning	Food production	Agri worker safety	Employment creation
Secondary priority	Employment security	Farm survival	Food production	Food security
Target group	Farms/industry	Emerging farmers	Agri workers/sector	Semi-skilled contractors
Relevance – agriculture/food production	Medium-low	High	High	Medium (future)
Additionality*	Medium-high – WCDOA facilitator/mediator	Medium-high (some existing initiatives)	WCDOA lead role	Medium (Existing project, other implementers (WFW), new process)
Effectiveness	Low-medium – did not succeed in all of it	High (targeted responses)	High	Medium (income generation)
Efficiency	Wine: High input, rapid/pro-active actions	Medium input – many measures	High input, rapid/pro-active actions	Medium (low input, exist. Infrastructure)
Value-added**	Wine industry very important for the WC + tourism	Employment security	Collaboration with EC	Internal efficiency
Extent - reach	Industry/nat. legislation	Sector	Cross-cutting/ Interprovincial	Targeted areas across the province
Extent - engagement	Wine industry: High Cut flower industry: Low	Medium (multiple efforts, mainly sector)	High (cont, sector/govt.)	Low
Sustainability	Low	Low	Low	High (cluster approach)
Impact level	High (industry specific but high proportion of labour force incl. tourism)	High (farms) High (agri setor)	High (farms) High (agri sector)	High (people) Low-medium (agri sector, semi-skilled contractors)

*Degree of dependence on WCDOA response measure for impact

** in addition to the priority areas

Table E2: Impacts of response measure under Strategic Outcome 2.

Evaluation criteria	Food gardens	Social relief projects	BFAP tracker	Vet. services – certificate ext.
	Existing	New	Existing	Existing
Priority	Food production	Food availability & accessibility	Agri risk impact	Food safety
Secondary priority	Food security		Agri sector assistance	Food production
Target group	Households/ communities	Local communities	Stakeholders/ associations	Farms
Relevance – agriculture/ food production	High	Low	High	Medium
Additionality*	Medium-high (Existing initiative, significant up-scale+partners)	Medium-high (New initiative, "critical role" + collaborators)	Low (Existing initiative)	Medium-high
Effectiveness	High (targeted response)	High (targeted response)	Low (addresses underlying issues)	High
Efficiency	High (medium input, exist. Infrastructure)	High (low input, urgent issue + collaborators)	Low input, medium output	Low input, high output
Value-added**	High (Employment creation for local service providers + suppliers)	WCDOA build strong collaborations	Evidence-based decisions/cabinet submissions	Impacted other provinces

Extent – reach	Wide across HotSpot areas	Local (Needs based)	Sector	Industry specific
Extent - engagement	Medium (collaborations, Casidra etc.)	Medium (mobilising funding and produce)	Low	Low- Medium (single topic, Nat. engagement)
Sustainability	High replication potential/success +collaborations)	Low (once-off – though one soup kitchen still on-going)	High	Low (temporary measure)
Impact level	High (people/ communities) Low (agri sector)	High (people/ communities) Low (agri sector)	Medium (sector) Low (farm)	Medium (Regulation changed country-wide)

Table E3: Impacts of response measure under Strategic Outcome 3.

Evaluation criteria	Financial support: Emerging farmers	College continuation	Wine worker stipend (gender/disability aspect)
	Existing	Existing	New
Priority	Farm survival	Education/training	Income generation
Secondary priority	Food security	Food security	Food security
Target group	Emerging farmers	Sector - youth	Wine industry/women/youth
Relevance - agriculture	High	High (future)	High
Additionality*	High	Low-medium	High
Value-added	N/A	Fast-tracked plans for blended learning	N/A
Effectiveness	High	Low (plans already existed)	High
Efficiency	Low (initiative in the making for a long time)	Low (initiative in the making for a long time)	Medium input, high output
Extent – reach	Sector, farmer profiles	Sector	Wine industry
Extent - engagement	Medium	Medium	Medium
Sustainability	Medium	Medium (TBD)	Low (temporary measure)
Impact level	High (people/communities) Medium (agri sector)	High (students) Medium (agri sector)	Medium (sector, -as a stand alone measure) Low (temporary measure)

Table E4: Impact of response measure under Strategic Outcome 4.

Evaluation criteria	Ebenhaezer Lucerne plots	Youth Intervention	Health & Safety campaign/ Distribution of PPEs
	Existing	Existing	New
Priority	Income generation	Capacity	Health & Safety
Secondary priority	Food security	Agri employment	Food production cont.
Target group	Household	Sector - youth	Sector + rural communities
Relevance - agriculture	High	High (future)	High
Additionality*	Medium-high (pipeline project)	Low	High
Effectiveness	Medium (income generation, outcome tbd)	High	High
Efficiency	Low input, exist. Infrastructure	Low input, medium output	High input, high output
Value-added	Employment creation for local service providers / suppliers	Increased efficiency via collaboration with rural e-centre	Recognition of WCDOA role
Extent – reach	Target community	Sector -rural communities	sector
Extent - engagement	Low	Low-medium	Medium (+ partners)
Sustainability	(TBD)	High	Low
Impact level	High (people/communities) Low (agri sector)	High (youths) Medium (agri sector)	High (people) Medium-High (sector)

Annex F: VIPs and the WCDOA response measures

Table F1: VIPs and the WCDOA response measures.

a) Safe and cohesive communities - none
b) Creating an enabling economy and a job in every household
• <i>Wider sector support (e.g. wine and cut flower industry)</i>
• <i>Food gardens, Ebenhaezer lucerne plots, alien vegetation clearing (employment)</i>
c) Empowering people (health, education and social development)
• <i>H&S communication & advocacy campaign, youth Intervention 2020</i>
• <i>College continuation</i>
d) Public transport, mobility and spatial transformation
• <i>Issuance of travel permits</i>
e) Innovation and culture
• <i>Online sector engagement/ optimised internal processes</i>

Annex G: Systems Conceptual Frameworks

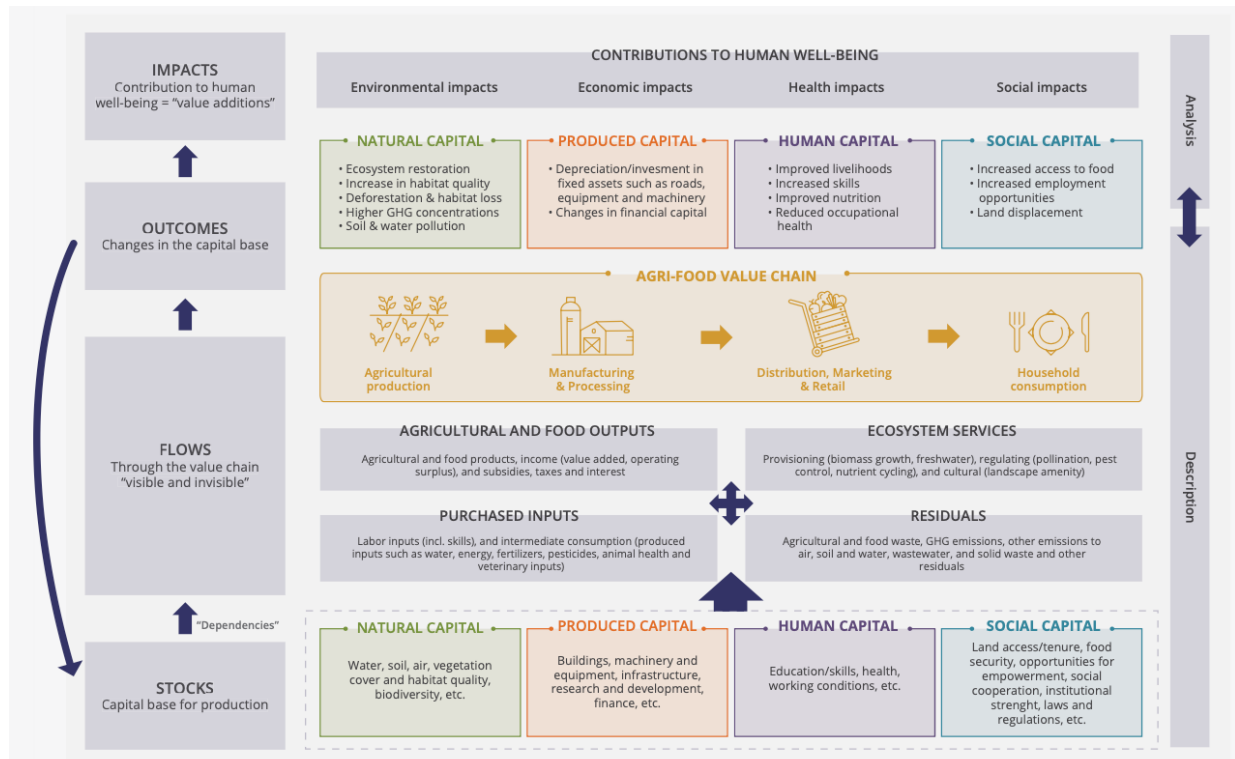


Figure G1. The TEEBAgriFood Evaluation Framework (TEEB, 2018).

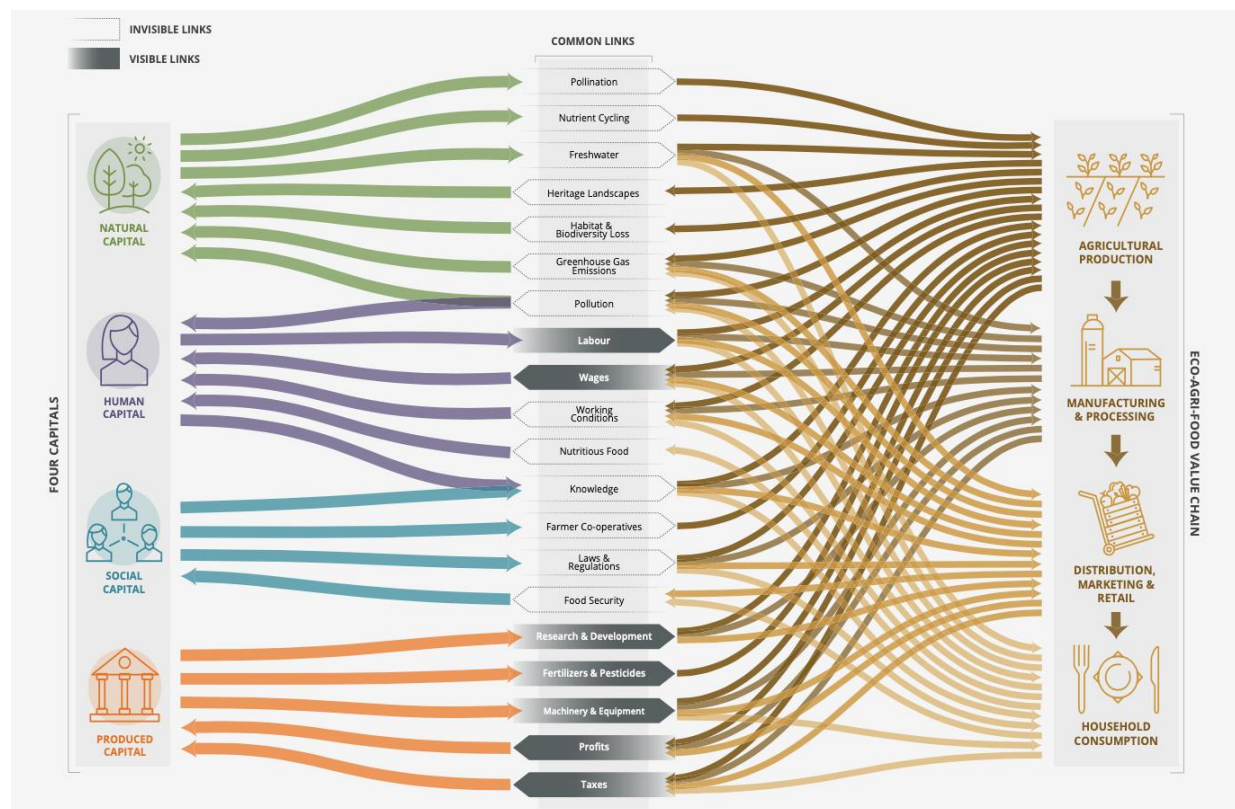


Figure G2. Example of using the Framework to show links between the four capitals and the eco-agri-food chain (TEEB, 2018).

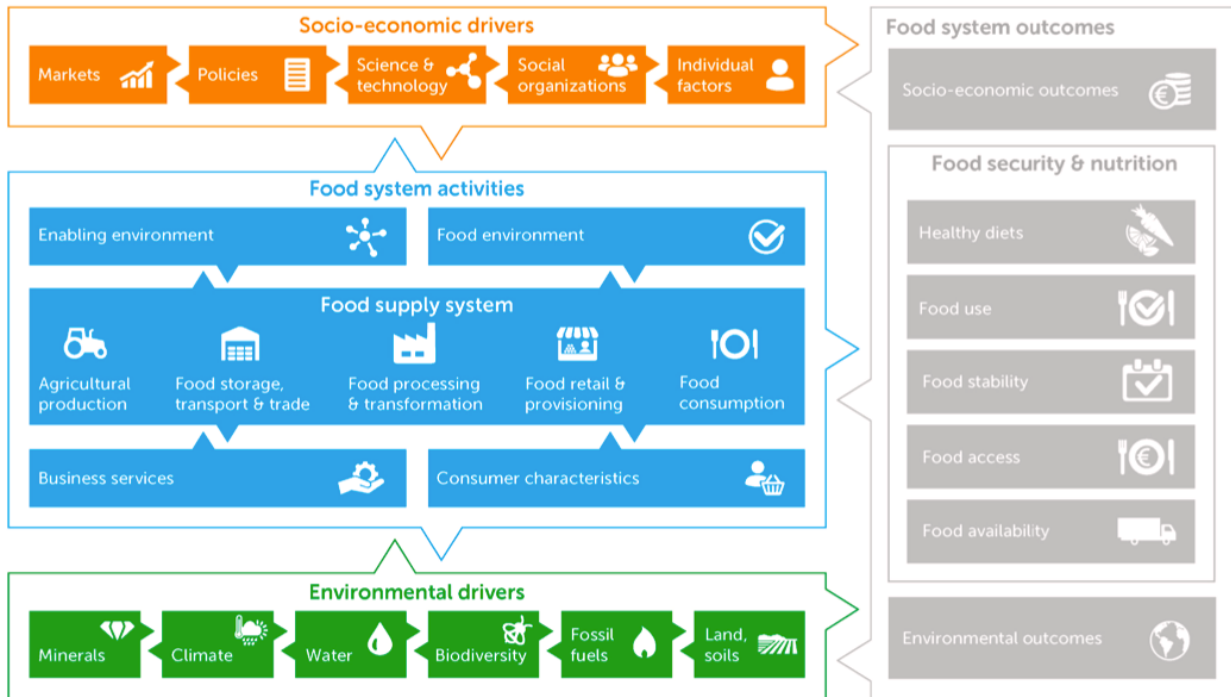


Figure G3. The Wageningen University Food system Framework (from van Berkam et al, 2018).

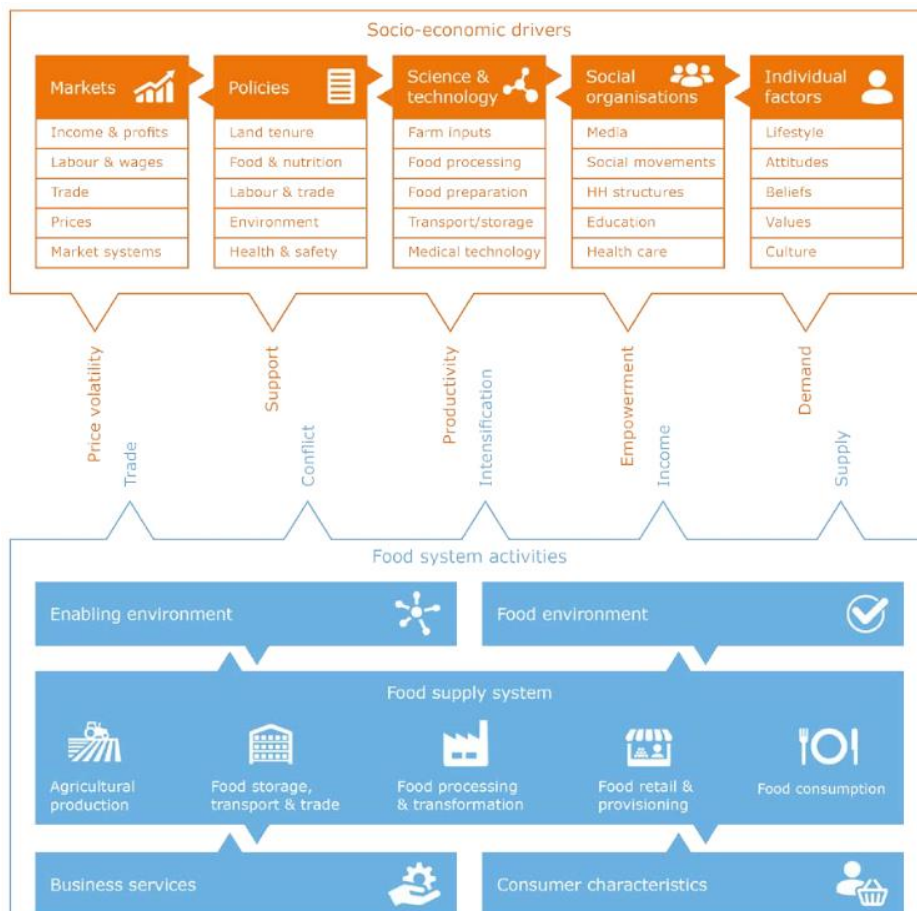


Figure G4. The Food System Framework - Details of the Socio-Economic drivers and interactions (from van Berkam et al, 2018).

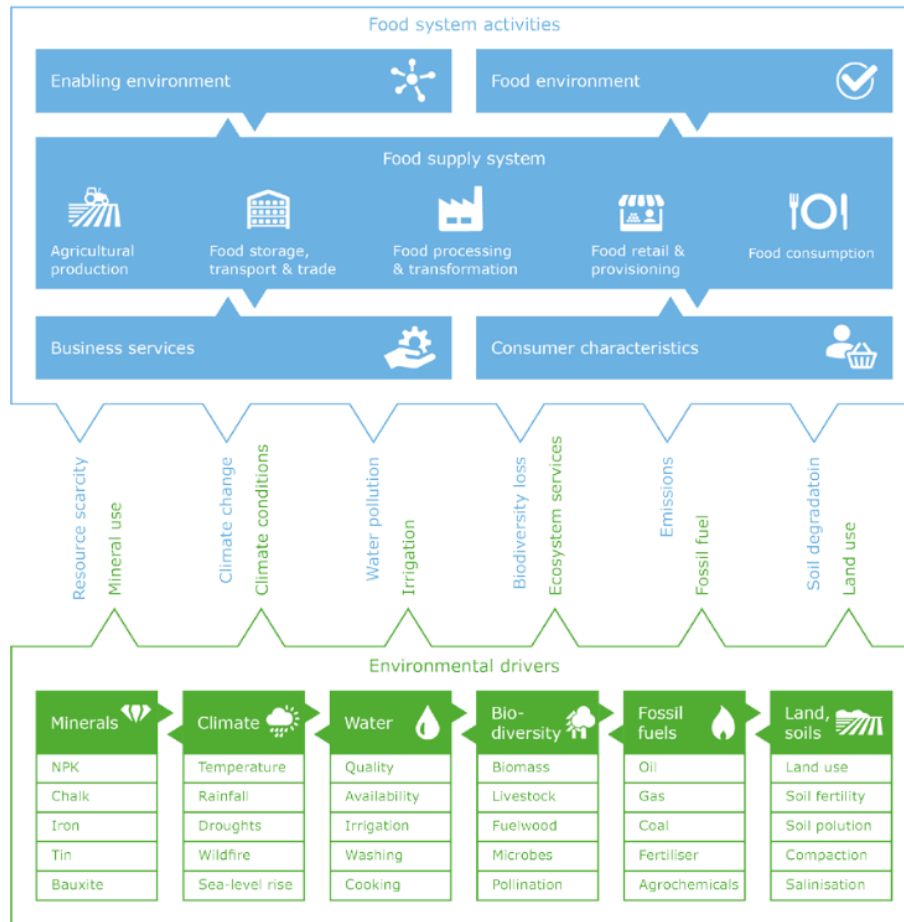


Figure G5. The Food System Framework - Details of the Environmental drivers and interactions (from van Berkam et al. 2018).



Figure G6. Example of use of the Food System Framework for Rapid Assessments of COVID-19 impacts on an agri-industry in Ethiopia (Borman et al, 2022).

Annex H: Risk Management - Relevant lessons from theory and the field.

1. Risk management – relevant lessons from theory

1.1. Embracing uncertainty and the “unknown unknowns”

According to Ansell and Boin (2019) crises can be distilled into two main classes: those that are the “unknown unknowns” and those that are “known unknowns”. The latter would constitute more routine emergencies that would form the basis of conventional risk management approaches - they occur with some regularity and may provide a quantitative basis for sound risk management and rational planning. Examples include floods, forest fires, and hurricanes. However, the “unknown unknowns” pose a far greater challenge to risk management: It is much harder to prepare for crises and disasters that do not happen often and unfold in unforeseen ways. Nobody knows when such a crisis will materialize, what the scale and extent of consequences will be, who will be involved, and what actions will be required to stop it. Such circumstances create the condition referred to as “decision making under ignorance” (Turner, 1994). It is simply impossible to draw up a specific plan for these “unknown unknowns” (Clarke, 1999).

Lesson: The post covid-19 pandemic risk management process that the Department adopts should be geared to endow the Department (and the Sector) with greater capacity to deal with deep uncertainty and crises that fall into the class of “unknown unknowns”.

1.2. A move from “control” to “resilience” thinking and approaches

According to Hoekstra et al. (2018), two main approaches, or rationales, can be distinguished for the management of systems under conditions of great uncertainty; control and resilience. In the control rationale, the aim is to manage a system for performance of one or a few variables of interest. In the resilience rationale, on the other hand, the aim is to manage a system's capacity to avoid or handle regime shifts that impede its continued functioning. The resilience approach incorporates the following key elements that make it distinct from the control approach:

- **Strategic choice:** Incomplete knowledge and the existence of different values and objectives is taken as given, allowing for multiple complementary strategies to be tolerated and encouraged. Diversity (of options) is considered essential for coping with shocks and avoiding lock-in.
- **Attitude to social variability:** An array of different institutions fit for their specific contexts, with the inherent variability and dynamics that go with that, are valued rather than regarded as something to be reduced and controlled. This institutional variability reduces the chance that the whole system fails.
- **System coordination:** A system made up of a network of decentralised (modular) self-organising elements is preferred, whereby modules are connected (not isolated) and (partly) independent (a distributed rather than a centralised system).
- **Organisational structure:** Adaptive capacity is considered the most important trait of a system. Hence, the system must be organised to enlarge flexibility and adaptability. Features of adaptive co-management include the existence of relevant networks and feed-backs, collaboration and shared knowledge and learning.
- **Future proofing:** Flexibility is paramount, as such the resilience approach is more explorative, and open to new, alternative strategies. The interest lies in renewal and transformability of the system in response to disturbances and change. Active measures are taken to create variety through experimentation, trialling and free association

Lesson: The post covid-19 pandemic risk environment will be characterised by increased levels of uncertainty. As such any risk management process that the Department adopts should be informed by the resilience approach, rather than the control approach.

1.3. Understanding the differences and roles of “top-down” and “bottom-up” responses

Boin and Bynader (2015), in their examination of the failures and successes of crisis coordination in the wake of disasters, identify two broad response typologies: top-down and bottom-up. When disaster strikes, government must improvise to organise a response, regardless of the levels of prudent planning or careful anticipation of events. They argue that large scale disasters are simply too complex, and the events too disruptive to expect planned responses (top-down) to carry the day. The following key characteristics of crises require the appropriate integration of bottom-up approaches with top-down responses:

- **Deep uncertainty:** A defining feature of a crisis is deep uncertainty. It is very difficult to make sense of crisis and disaster situations - the causes and consequences and possible solutions are simply not fully known in the initial phases. This quickly renders most plans, developed “top-down”, useless, as it is impossible to predict before a crisis hits what exactly needs to happen and who should do it.
- **Transversal nature:** During major event that transcend geographical and sectoral boundaries and which cross public-private divides, coordination does not adhere to hierarchical lines and routine processes. Command-and-control (top-down) is unlikely to be effective in such situations, often being too slow, disconnected and inadequate for the task.
- **Emergent collaboration:** When people face an unforeseen problem that is hard to solve, they generally are inclined to seek out opportunities for collaboration in order to come up with solutions. The bottom-up perspective assumes that collaboration, driven by necessity, simply emerges in times of crisis.
- **Collaboration uncertainty:** What is not clear is under which circumstances this “emergence” will, or will not, happen. Therefore, time-honoured ways to engineer collaboration (i.e. top-down approaches) may be needed to create an enabling environment within which such unplanned collaboration (bottom-up responses) can emerge.

In light of this Boin and Bynader (2015) propose a theory of “collaborative crisis governance” that seeks to overcome the gap between formal coordination processes (top-down) and emergent collaborative practices (bottom-up). They propose the following advice for strategic leaders responsible for the coordination of crises:

- **Preparation pays:** Pre-emptively thinking about the challenges of coordination beforehand and contemplating how one would engage in the top-down crafting of strategic coordination, provides the first building block for effective engagement during a crisis.
- **Formal platforms can work.** Formal platforms set up for a country or sector with the specific objective of aiding horizontal and vertical are successful in bringing together many stakeholders and role-players in a semi-structured environment.
- **Communication: tone matters.** When strategic (command-and-control) actors enter the fray of an unfolding crisis they often want to impose their pre-planned mechanisms on the emerging (bottom-up) network. While it is fully understandable that some structure is needed, imposing central coordination in an insensitive way can disrupt emerging response networks and result in their loss to ongoing coordination efforts.
- **Modern information tools can help.** Informal communication and information exchange networks often emerge during crises and disasters – strategic leaders should seek out these emerging initiatives out for collaboration, rather than shunning them or looking to close them down.

Lesson: Risk management process that the Department adopts should explicitly integrate the capacity for the appropriate use of top-down AND bottom-up elements in the formulation and implementations of responses.

1.4. Pragmatism in the face of deep crisis

Ansell and Boin (2019), in their examination of approaches to managing crises in the face of deep uncertainty, delineate strategic crisis management into a set of four core tasks:

- **Sense-making:** Organizing the process through which strategic crisis managers arrive at a shared understanding of the evolving threat and its consequences. This requires the collection, analysis, and dissemination of information about the unfolding threat and its consequences.
- **Critical decision making:** Making strategic decisions (while avoiding operational ones) that are effective and legitimate, both in the short and the long run.
- **Coordinating:** Facilitating the implementation of planned actions and strategic decisions by motivating actors in the response networks to work together and perform their tasks (in an effective and legitimate way).
- **Meaning-making:** Explaining to all involved what is going on, what is being done to remedy the situation and limit the consequences, and offering actionable advice to move forward.

These tasks are not easy to perform, particularly in situations of uncertainty. It is challenging to make decisions without information, to discover that plans for response networks do not suffice in the face of unimagined threats, and to then somehow communicate in a meaningful way to an anxious public. The authors therefore propose four *pragmatist principles* to guide strategic crisis managers as they implement these key actions: accepting fallibility, embracing complexity, experimentalism and bricolage. The table below summarises the interpretation of these four pragmatist principles against each of the four crisis management tasks (from Boin and Bynader, 2015):

Table H1: Applying the four pragmatist principles.

Crisis Manager Tasks	Pragmatist Principles	Practical implications
Sense making	Accepting Fallibility	<ul style="list-style-type: none"> - Accept that merging knowledge is fallible & provisional, - Emphasis on continuous inquiry into the crisis situation. - Ongoing evaluation of whether an interpretation of the situation continues to line up with changing facts on the ground.
	Embracing Complexity	<ul style="list-style-type: none"> - Avoid categorization of events that can blind decision makers to the complexity, create blind spots and avoid "default" but fatally flawed responses. - Deliberation with the sense-making group and network partners: Critical discussion of underlying assumptions, causal reasoning, and resulting interpretations.
	Experimentalism	<ul style="list-style-type: none"> - Treat the emerging picture of the situation as a hypothesis and test it continuously against incoming information - Engage in "reflection-in-action", that is, "stepping back" from the situation to critically examine prior and current action - Organize feedback loops to test a picture of the situation against emerging facts
	Bricolage	<ul style="list-style-type: none"> - Conventional methods of information collection, analysis, and sharing may no longer work in times of crisis. Make use of available means, which may not be perfect but can be better than trying to revive what is not there.
Decision making	Accepting Fallibility	<ul style="list-style-type: none"> - Crisis leaders should try to avoid making irreversible decisions (those that do not allow for revision or adaptation) – use incremental decision making.
	Embracing Complexity	<ul style="list-style-type: none"> - Look past apparent dilemmas and try to break them down in smaller decisions. - Avoid self-introduced categories or self-imposed deadlines - Strategic objectives cannot be fixed, but must be adapted as the situation evolves - Use deliberation to bring out alternative arguments and, thus, facilitates the "probing" of emerging consensus.

Crisis Manager Tasks	Pragmatist Principles	Practical implications
	Experimentalism	<ul style="list-style-type: none"> - Inquire into the values at stake in any situation and explore how they can be balanced and protected. - Adapt strategies as more about the values at stake is understood.
Coordinating	Accepting Fallibility	<ul style="list-style-type: none"> - Accept that partners in the response network have their own expertise and may even have (much) better ideas about the response. - Take on the role of facilitator of network performance
	Embracing Complexity	<ul style="list-style-type: none"> - Be ready for and tolerate the ambiguities inherent in emerging cooperation between parties that have never worked together before. - make sure communication flows, bottle necks are removed, and miscommunication is avoided.
	Experimentalism	<ul style="list-style-type: none"> - The role of the coordinator is to provide an overall aim for which the best implementation methods remain to be discovered in practice. The coordinator should allow partners to figure out what the best way is. - Training can help teams develop coordination skills that can be useful in responding to novel and uncertain situations
	Bricolage	<ul style="list-style-type: none"> - Both the coordinator and the network partners should not rely on detailed plans and thick playbooks, especially those that have little or no bearing on the situation at hand - Rules should be kept simple to preserve flexibility
Meaning making	Accepting Fallibility	<ul style="list-style-type: none"> - Avoid projecting leadership through false reassurance or appeals to authority
	Embracing Complexity	<ul style="list-style-type: none"> - Caution against an immediate identification of clear causes or simple solutions - Avoid deadlines and solutions that make alternative courses of action hard to initiate without performing an embarrassing and politically expensive U-turn.
	Experimentalism	<ul style="list-style-type: none"> - Once a communication strategy is deployed, Pragmatism managers should solicit feedback about how the public and partner institutions are understanding and perceiving the message.
	Bricolage	<ul style="list-style-type: none"> - Messaging should build on existing conceptions, explanations, reputations, and symbols. It should not indicate brand-new solutions that may not be feasible either politically or in terms of required resources.

Lesson: To cope better with “deep crisis” the risk management processes that the Department adopts should integrate elements of the pragmatic principle led approach in the formulation and implementation of response strategies.

1.5. Resilience as a crisis/risk management process

Williams et al (2017) propose the integration of the subjects of crisis management and resilience. Integrating crisis management (i.e., the ability to return organizations and systems to normal functioning after a disruption) and resilience (i.e., the ability to maintain reliable functioning despite adversity) would seem to be a natural way to more generally strengthen theory of organizational functioning under adversity. The authors suggest that linking crisis and resilience may provide a more complete understanding of organization–adversity relationships. In particular they highlight that resilience can be understood as one strategy for dealing with uncertainty and risk and “the capacity to cope with unanticipated dangers as they become manifest, learning to bounce back”. If one thinks of resilience as a process, and couple it with the crisis-as-process perspective, then a mark of resilience is “the ability to negotiate flux without succumbing to it”. A process definition of resilience accounts for the dynamic nature of resilience as an interaction between the organization and the environment. As such, it is inclusive of pre-adversity capabilities, in-crisis organizing and adjusting, and post-crisis resilience responding.

Ungar (2018) sets out to build a conceptual bridges between disciplines identify principles that explain patterns of resilience of different systems (biological, psychological, social, cultural, economic, legal, communication, and ecological systems are all considered) with the objective of identifying a common set of principles to explain resilience among cooccurring systems. By searching for commonalities and differences among these lists of principles, seven conceptual clusters were identified that reflect current thinking across disciplines and which provide a useful framework to guide resilience building within institutions and organisations that are facing uncertainty and the risk of adversity.

- **Principle 1. Resilience occurs in contexts of adversity.** Resilience is not the same as patterns of growth that occur in a predictable or optimal environment. Resilience is distinguished by survival or thriving in contexts under stress.
- **Principle 2. Resilience is a process.** Resilience is a process rather than the static trait of a system. There are five processes that contribute to changes that make systems more sustainable in contexts of adversity: (a) persistence; (b) resistance; (c) recovery; (d) adaptation; and (e) transformation.
- **Principle 3. There are trade-offs between systems when a system experiences resilience.** Although systems show a tendency toward maintaining balance, resilience (as a process) does not mean that all parts of a system, or cooccurring systems, benefit equally when a system appears stable. Trade-offs are always evident.
- **Principle 4. A resilient system is open, dynamic, and complex.** A system's resilience typically requires that a system be open to new information. As a process, resilience is a measure of how well a system integrates environmental shocks and initiates new behavioural regimes.
- **Principle 5. A resilient system promotes connectivity.** Connectivity refers to how well components of systems interact with one another during a crisis. It has been suggested that the more collaborative the network (e.g., the more organizations are coupled together without becoming too enmeshed or too disengaged), the more likely systems are to solve complex problems.
- **Principle 6. A resilient system demonstrates experimentation and learning.** Systems experience more resilience the more they include opportunities to experiment with new solutions, reflect on the impact of experience, and integrate learning into future efforts to adapt.
- **Principle 7. A resilient system includes diversity, redundancy, and participation.** A system's diversity means it has sufficient resources to function when stressed or compromised. The more components that are ready to take over when one part of the system fails the more sustainable the system is as a whole. The more diverse the system is (the more ways it has to solve problems), the less vulnerable it will be to perturbations. Redundancy, however, is not simply about duplication of resources or broadening the pool of participants engaged in solving a problem. The resilience of systems also depends on where that redundancy is located and its capacity to handle the load after a crisis occurs. Thus, systems are, in general, stronger when more elements across more systems participate. Participation is more likely to occur, however, if the solutions that are being sought have meaning (are important to survival) for those parts of a system that are being asked to engage.

Lesson: Risk management process that the Department adopts should integrate the concept of “resilience as a process” into the design and functioning of risk management processes

2. Key lessons from the field

This section focuses on what can be learnt from the responses of countries and regions with important agriculture sectors to the Covid-19 pandemic. It starts in section 5.4.1. with a summary of reflections from India that provide a useful and practical reinforcement of the theory discussed above. In section 5.4.2. the findings from the national and global review of responses are then summarised (Tables 4 and 5), highlighting what worked at a government response level and at an agriculturally focused government response level respectively. Please refer to Section II of the Review Report prepared as part of this evaluation for a more detailed account of region specific responses according to frameworks used, the government response and the agriculture-specific responses (specifically the identification of key risk areas and mitigation actions implemented).

2.1. Reflections on theory in practice from India

The theoretical considerations outlined in chapter 5.3 are reinforced by Mishra (2020) in his reflections on Risk Management lessons from how the pandemic was responded to and managed

in India. These provide a useful bridge between theory and practice. He highlights the following key lessons:

- A key success factor was **constant communication between different parts of society** – central and state government and between government and civil society
- There is a need for a **more dynamic risk assessment tool** to provide sufficiently granular, context specific, current (real-time) and accurate information for decision makers as the crisis unfolds.
- **There is no substitute for community action** – government provides the enabling/supporting environment to allow citizens to actively participate in the response.
- **Risk is global, resilience is local** - this has two implications: one, there is a need for greater investment in local level resilience and self-reliance and two, even greater international cooperation towards fighting a global disaster.
- Need to **move from managing risk to managing uncertainty**. Policymakers have to make decisions under great uncertainty. The traditional disaster risk management paradigm is attuned to using the analyses of past events—their frequency, intensity, and impact—to quantify risk and devise risk management strategies for the future. We need to bridge the gap between traditional disaster risk management and risk management in an uncertain environment.
- Need to **move from managing risk to building resilience**. We have to focus on systemic resilience by building redundancies, by developing strong feedback mechanisms and by investing in stronger modular systems at the local level.
- Key areas that need to be focus going forward:
 - A further strengthened disaster risk management system, particularly at the local level
 - Resilient infrastructure including social, economic and environmental
 - Resilient financial system with equitable access to savings, credit finance and insurance
 - Social protection especially for those in the informal economy
 - Sustainable natural resource management

2.2. Synthesis of learnings from other government responses

Table H2: Key theme of successful government responses from other parts of the world

Theme	Specific elements
Trust	<ul style="list-style-type: none"> - Build trust with citizens. - Social capital builds trust amongst the public.
Coordination	<ul style="list-style-type: none"> - Ensure consistent and organise actions on a state, local and nongovernmental level. - Collaboration and coordination across Government spheres. - Have a united authority among national and state levels. - Foster effective collaboration across boundaries. - Communicate a clear vision for addressing the threat. - Ensure effective communication and information management. - Have a clear national strategy for managing the pandemic.
Facilitation	<ul style="list-style-type: none"> - Promote competition and reduce regulatory burdens. - Minimise red tape and regulatory hurdles. - Adopt a pragmatic approach rather than fallacy thinking.
Monitoring for Decision Making	<ul style="list-style-type: none"> - Increase the role of evidence-based administrative decision making and policy making. - Act quickly and decisively based on incoming data.
Engagement	<ul style="list-style-type: none"> - Meaningfully engage with different communities and stakeholders to find out what they need.
Capacity	<ul style="list-style-type: none"> - Acknowledge the threat early. - Enhance training or mentoring programmes. - Promote access to the formal labour market and improve skills and abilities of the labour force. - Enhance infrastructure and connectivity coverage.

Table H3: Key risk focus areas and mitigation actions taken – synthesis of agricultural focussed government response to COVID-19 from other parts of the world

Focus	Actions taken
Food Security	<ul style="list-style-type: none"> - Quantify and monitor food reserves and food supply. - Focus on social programs to provide food – national and regional programs. - Food baskets/packages as immediate relief. - Feeding schemes for children at schools. - Initiatives to support direct sale of food from farms. - Digital channels for sales and communication programs. - Provided aid for self-production – vegetables and livestock. - Introduce and promote the use of electronic food commerce platforms and applications. - Waived the Competition Act allowing retailers to collaborate to protect consumers by ensuring security of food.
Exports	<ul style="list-style-type: none"> - International Freight Assistance Measure. - Government support to air freight to ensure exports.
Labour	<ul style="list-style-type: none"> - Red-tape reduction initiatives and facilitation to support labour provision and mobility. - Communication and prevention measures to ensure a healthy labour force. - Various labour protection and wage support programs and mechanisms. - Retraining: Plans to recruit workers from the domestic labour force who are furloughed from their normal occupations.
Government Service Delivery	<ul style="list-style-type: none"> - Engagement with trading partners to provide assurance. - Investigating and promoting advances away from paper-based certifications for food and agricultural goods, including promoting eCert trial opportunities and capitalising on successful eCert trials to fully paperless systems.
Agricultural Inputs/Supply Chain Disruption	<ul style="list-style-type: none"> - Attempts keep borders open for international food trade. - Alternative supply pathways for Agri processing can be found if disruptions appear imminent. - Standardize the transit of food and inputs both within the country and internationally through agreements implemented bilaterally or multilaterally. - Constant monitoring and logistical support to ensure supply. - Price controls on basic inputs.
Farm Support	<ul style="list-style-type: none"> - State debt cancellations. - Moratorium on credit for three months – payment breaks. - Subsidies and/or direct transfers. - Economic incentive programs to protect jobs. - Coordination with insurance providers to support producers.

Annex I: Key risks that should be on the Department and Sector’s radars

1. Introduction

A key aspect of this evaluation is to understand the nature and type of disruptive risks that could be faced by the Department and its stakeholders over the next decade. This examination provides an important diagnostic component to the development of a strengthened risk management approach.

2. A disruptive risk typology

Given that the focus of this evaluation is on **disruptive** risks, predicting the level of disruption in risk assessment is based on an assessment on a likelihood/impact criteria trajectory. Therefore, both systemic shock events as well as stressors (slow onset events such as a drought) can be regarded as disruptive if their impact is high. The important aspect is whether the risk is being monitored, and hence mitigated, and that the preparedness for potential disruptive risks is in place. Table 11 presents the characteristics of the “Animal Kingdom” of disruptive risks (Lam, 2019; Wisdom Project, 2021). Note that there is some debate in the risk literature about the classification and ‘colours’ of animals (e.g. a black, grey swan events, or white and black elephant events) – the table serves to exemplify disruptive risk types, rather than enter a discussion of definitions.

Table 11: Animal Kingdom of disruptive risks

Risks	Likelihood	Impact	Challenge	Examples	Strategy
Black Swan (or grey) “Unknown unknowns”	Low	High	Predictability (grey swan events may be more predictable such as COVID-19 or a terrorist attack)	Internet invention; 9/11; 2008 economic crisis (COVID-19)	Develop scenario analysis, early warning indicators and contingency plans GOAL: PREPAREDNESS
Grey Rhino “Known unknowns”	Moderate to high	High	Ignored for various reasons	Disruptive technologies; 4 th I; Cybersecurity; Climate change (COVID-19)	Establish processes for innovation, experimentation and change management GOAL: AGILITY
White Elephants “Known knows”	Extant	Potentially high	Difficult to dispose of, People don't want to address	Corporate scandal, poor investment	Invest in good governance, culture & values, objective advice, and crisis management GOAL: DECISIVENESS

The question therefore perhaps more so, thus, is how to anticipate and monitor potential future disruptive risks, identify mitigation options, and improve preparedness. The evaluation has sought to answer this question, for which at this stage there are two elements in place: The first is to consider which types of disruptive risks may occur in future, whilst the second component engenders having the systems and processes in place to detect and understand such risks early enough and to be able to respond swiftly – being prepared for anticipated risks (regardless of what the event may be).

The aim of section 3 is to review the first component – *which types of disruptive risks might the agricultural sector in the Western Cape face in the next decade?* This is done from a broad global perspective (3.1.) and from a South African perspective (Section 3.2.).

3. An examination of potential disruptive risks

3.1. Global risk perspectives

The World Economic Forum undertakes an annual Global Risks Perception Survey (GRPS), which is reported on in their annual Global Risks Report (World Economic Forum, 2022). While the rankings are based on surveys and thus subjective, what an analysis like this does is highlight the broad scope of risks that should be considered within risk monitoring processes. Figure 11 presents an array of global risks identified and ranked in the GRPS, that are anticipated over the next 5 to 10 years. The GRPS report goes further (Figure 12) and shows the risks identified as the most damaging (top



Figure 11. Global Risks

row) and the risks they will be aggravating, demonstrating the in connectedness of the risk environment, with its multiple positive and negative feedback loops (the same key applies as for Figure 11).

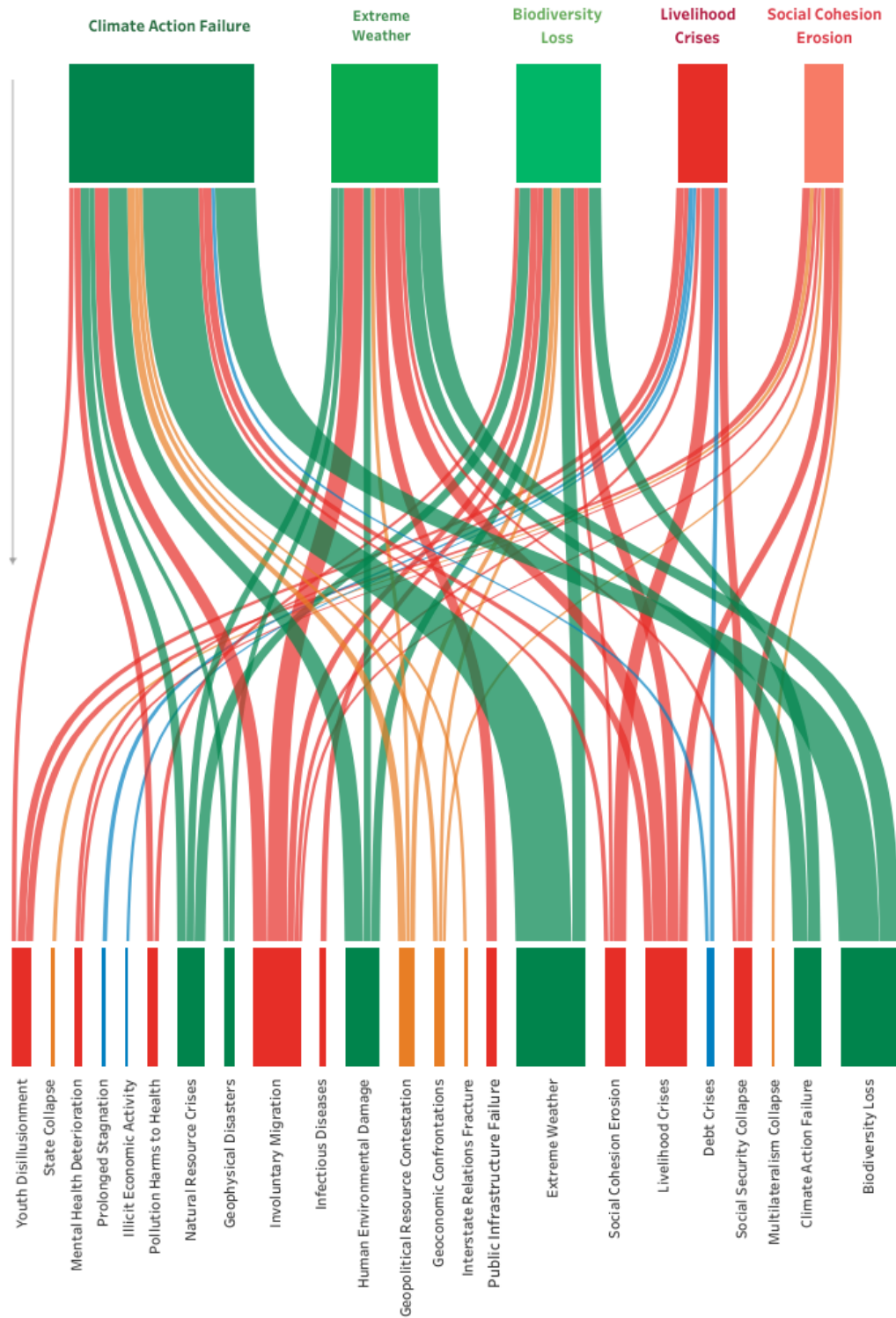


Figure 12. Risk effects linkages

Frontier risks are potential shocks that are less well known but would have huge impacts if manifested (Figure 13). Frontier risks were included in the global assessment in order to encourage

	Low impact	High impact	Unknown impact
Low likelihood	<ul style="list-style-type: none"> – Minor manufacturing error 	<ul style="list-style-type: none"> – 9/11 use of civilian aircraft – Supervolcanic eruptions 	<p>Frontier</p> <ul style="list-style-type: none"> – Democratic backslide – Militarization of space
High likelihood	<ul style="list-style-type: none"> – Global warming by .01C – Minor road/transport accidents 	<ul style="list-style-type: none"> – 2008 financial crisis – Global warming by 3C – Growing inequality 	<p>Frontier</p> <ul style="list-style-type: none"> – Genetic engineering enhancement – AI weaponry – Extreme citizen unrest
Unknown likelihood	<p>Frontier</p> <ul style="list-style-type: none"> – Isolated data theft 	<p>Frontier</p> <ul style="list-style-type: none"> – Bioweapons – Human-engineered pandemic 	<p>Frontier</p> <ul style="list-style-type: none"> – Permafrost methane release – AI superintelligence

Figure 13. Frontier risks ranked by impact and likelihood.

more expansive thinking about other risks in the next decade. Frontier risks identified by the World Economic Forum (World Economic Forum, 2021), who acknowledge the list is non-exhaustive, include: Accidental war, anarchic uprising, exploitation of “mind-reading” technology, democratic collapse, neurochemical control or deployment of small-scale nuclear weapons.

There are at least four critical realms in which humans are advancing and for which there is more limited understanding of whether, when and how specific risks could emerge:

- Advancing into new territorial and geographic frontiers, e.g. through space exploration.
- Breaching ecological and environmental boundaries, e.g. through geoengineering.
- Expanding frontiers in human communication, e.g. through social networks and AI.
- Reaching a new human-technology frontier, e.g. through genetic enhancement.

Additionally, potential risks may lie at the intersection of frontiers (e.g. risks emerging from brain-computer interface technologies). Frontier risks could manifest as an extreme version of a known risk, or as a completely new phenomenon, and its emergence could be rapid, gradual or non-linear.

While decision-makers – in this case in the agricultural sector must confront risks of all categories, as listed above, frontier risks require exploration for three reasons:

- The early-warning signs are often subtle and difficult to detect;
- These risks are less likely to be understood beyond a niche group of experts; and
- Their uncertainty means they could manifest at any point, and with any magnitude.

3.2. Future risks in a South African Context

A general overview

The Institute for Risk Management of South Africa produce an annual risk report for South Africa, in the latest report (IRMSA, 2021) the authors start with the following:

“In this report, we firmly demonstrate the need for South Africa, as a collective, to pool its resources, whether those resources be individual, corporate, government or societal to bring about a sustainable future for us all. One of those resources, and we submit a critical one, is our ability to manage our risk as a country”. The IRMSA report identify the following top potential risks:

1. Leadership crisis and scarcity
2. Private and public governance failures
3. Corruption
4. Shifting consumer behaviour
5. Failure to move forward in reforming the health system
6. Deepening structural inequality
7. Failure to recalibrate education and skills development
8. Extreme weather events, natural disasters and climate change
9. Youth under increasing pressure – a lost generation?
10. Disruptive technologies
11. Cyber risk
12. Prolonged deep economic recession

Agriculture and food system risks

Arising from the literature review and the data collection phase (interviews) of this evaluation, the following agriculture related risks are identified. This is not an exhaustive list but rather serves to highlight the array of subjects that risk management processes will have to, at a minimum, give consideration to:

Biophysical

- Water scarcity, major decline in rainfall, inadequate infrastructure, and fierce competition for water from urban areas
- Constant destructive extreme weather due to climate change, e.g. drought, storm
- Crop damage, late frosts, floods, fires, etc. "Constant El Niño"
- Soil fertility collapse (due to build up & unrestrained use of salt- and petroleum based fertilisers and weed killers)
- Loss of biodiversity, e.g. insect pollinators
- Phosphorous runs out
- Irreversible pesticide and chemical pollution
- Unmanageable pests and/or diseases

Infrastructure/Trade

- Port, road and rail constraints/congestion and closures impede exports and sustaining market access
- Loss in confidence in "brand south Africa"
- Cannot export (due to variety of reasons, e.g. protectionism, prohibition on any fossil fuel transport, non-tariff barriers, pests & diseases)
- Infrastructure bottlenecks, e.g. ports, rail & road cannot handle freight

Socio-economic / Health

- The shadow economy and crimes associated with it grows out of control, e.g. corruption, gangsterism, smuggling, violence
- Unprecedented hunger – SA badly food insecure / food unaffordable for the masses
- More pandemics / zoonosis, e.g. bird flu that crosses over to humans (like 1918 Spanish flu)
- Antibiotic use for livestock farming leads to anti-biotic resistance in humans
- Labour unrest and persistent strikes; wage demands linked to racial oppression
- Land seizure & farm invasions
- Increased, intensive human migration into province
- The fallout of mechanisation and automation

Technology

- Exponential growth of alternative proteins
- 4th IR technology adoption disruption
- Wholesale change in packaging, e.g. only sustainable and/or ban on plastics

Economic

- Few large corporations capture the sector – smaller farms/businesses cannot survive
- Shortage of skilled labour and lack of technical skills
- Electricity scarce, unstable and unaffordable

- Diminishing resources allocated by National and Provincial government
- Wine industry phased out as farms become places of leisure, residence and tourism.
- Exponential growth in consumer demand for sustainable, ethical products
- Too powerful supermarkets have total control over prices
- Measuring success in terms of GDP growth and exports at the expense of ecological and social wellbeing
- Collapse of markets / Financial crisis; a prolonged world-wide economic slump
- Agricultural land is taken over for other purposes, e.g. urban and peri-urban sprawl.

4. Concluding remarks on risk

As the global economy and society becomes more connected, as global issues such as climate change and shifts in the geopolitical order occur, and the dynamics and feedback loops between the different components of this interconnected system change, so the specter of systemic shocks - that occur with little warning and with devastating impact – grows. The recent invasion of the Ukraine by Russia is a harsh reminder of our connectedness and collective vulnerability.

Historically, risk management has typically followed a reductionistic approach - defining lists of potential risks and preparing response measures that can be drawn on and implemented as and when a risk of a particular type is identified. These measures prove to be wholly insufficient in dealing with the non-linear complex system that characterizes modern day economies and societies. COVID-19 has served to bring these shortcomings sharply to the fore. Risk management, if it is to be effective, needs to reduce reliance on these reductionist methods and incorporate systems-thinking based approaches that are holistic in nature, are designed to enhance resilience and adaptive capacity, be capable of early detection and “sense-making” of risks as they emerge, and are agile and rapid in the formulation and implementation of responses.

Annex J: A Framework for risk management going forward

1. Risk and Resilience Management Framework

A proposed “Risk and Resilience Framework” is presented in Figure 4 in the main body of this evaluation report. It sets out a holistic risk and resilience management process that seeks to incorporate the insights, findings and lessons arising from this evaluation. The implementation of such a framework would require a minimum of 5 key interventions:

Intervention 1: Adopting an ongoing systemic risk management / adaptive process.

Intervention 2: Strengthening and/or establishing the needed internal and external risk management networks and forums.

Intervention 3: Adopting a holistic (systems) conceptual framework that represents all the key components and interconnections within the system included within the risk and resilience management process.

Intervention 4: Ensuring linkages and alignment between the Department's Strategic Outcomes and the risk management processes, holistic framework and networks & forums.

Intervention 5: Leveraging the core capabilities and capacities to ensure an “enabling environment” for a proactive risk and resilience management process.

Each intervention is discussed in greater detail below. In providing the details consideration is given to specific elements relating to activities within the Department itself, and those required within the external environment – within the sector at large.

2. Examining each intervention

Intervention 1: Adopting an ongoing systemic risk management / adaptive process

What's the Rationale for this?

Dealing with high uncertainty, complexity and growing risk of disruptive events necessitates a systematic and an ongoing proactive risk scanning and evaluation process that enables the early identification of risks, understanding of potential impacts, and leads to appropriate and effective response development, implementation and monitoring, such that the Department (internal) and/or the sector (external) are able to continue to function and progress towards achievement of the Strategic Outcomes.

What Key elements does it include?

An ongoing iterative process with connections and feedback loops between the elements as shown in simplified form in Figure 7. This is the heart of the risk and resilience management framework.

- **Proactive scanning.** This aims to utilize the Department's internal and external stakeholder networks (Intervention 2) to proactively identify potential threats through both structured (planned risk assessment processes) and informal information gathering arising from the communication exchanges created through regular engagement (listening out for emerging threats) to identify as early as possible risk/disruptive events, trends, or phenomena.
- **Sense Making.** Arriving at a shared understanding of the evolving threat in terms of its “nature” (is it an emerging trend or an acute crisis etc.) and its consequences (how it could impact the internal functioning of the Department and/or the functioning of the sector). Essential to this being done well is a holistic framework (Intervention 3) to bring the whole system into view to analysis where and how the event could impact the different elements of the system, and to do this together with the inputs of internal and external stakeholders via the forums developed for the purpose of supporting the systemic risk management/adaptive process (Intervention 2)

- **Pre-emptive response planning.** This builds on existing (conventional) risk management approaches to, based on the output of the proactive risk scanning, develop appropriate Business Continuity Plans (for the WCDOA's internal operations), Scenarios of how risks could play out across the sector and the development of "response archetypes" that build off different scenarios and seek to anticipate appropriate responses across the sector in the event a particular crisis manifests (these serve to deepen thinking about the systemic connections and strengthens preparation). These should be informed by the holistic framework (Intervention 3) and developed with engagement of the internal and external stakeholders (Intervention 2)
- **Response formulation.** Here responses are developed for internal functioning and/or for the sector. In the event that the threat is one that was anticipated early and for which contingencies and/or scenarios and/or response archetypes have been developed, these can be assessed and adapted as needed to inform the responses. In the case of an acute crisis (an "unknown unknown") it is likely that no contingency plans or scenario plans are in place and responses will need to be developed "on the fly", guided by the preceding step (sense-making) and using the holistic framework (Intervention 3) and inputs of the risk management networks and forums (Intervention 2). Responses may well look different for different contexts based on context specific considerations and the inputs of stakeholders.
- **Response implementation & coordination.** Responses are implemented internally and/or externally.
- **Meaning making & Impact monitoring.** Meaning making is the process of explaining to all involved what is going on, what is being done to remedy the situation and limit the consequences and offering actionable advice to move forward. This is enabled by having the ability to monitor impacts and to secure reliable feedback on the evolution of the crisis and the impacts of the responses – this again relies on being able to contextualise impacts within the system using the holistic framework (intervention 3) and having secure relationships and communications with internal and external stakeholders (Intervention 2).

Intervention 2: Strengthening and/or establishing the needed internal and external risk management networks and forums.

What's the Rationale for this?

Within a context of increasing uncertainty, unpredictability, connectedness and heightened risk, established, functioning and trusted relationships between role-players (networks), connecting via functioning engagement forums, are essential to endowing the shared system with adaptive capacity and resilience (the ability to identify and appropriately respond to emerging risks and crisis events that threaten to disrupt the system). Any viable risk management and resilience framework must, therefore, explicitly address the strengthening, establishment, incorporation and healthy functioning of these networks and forums.

What Key elements does it include?

A minimum of four categories of relationship/trust building networks and forums that need to form the foundation to and interact with the risk management process are proposed. These may take the form of multiple sub-forums as dictated by the complexity of the sector and the levels of granularity required:

- **Internal.** Representation of personnel for across the Department's programmes in an internal WCDOA risk forum.
- **Clients (stakeholders).** A forum of sector stakeholders across all industries making up the sector
- **Provincial and Local Government.** A forum made up of representatives of provincial and local government - this should build off the transversal formations that were strengthened through the COVID-19 pandemic.
- **National Government.** A forum made up key national departments

The role of these networks and forums would be to participate in and engage with the ongoing systemic risk management/adaptive process (Intervention 1) for the proactive identification and evaluation of risks, and to input to the sense-making, response formulation, response implementation and impact monitoring, and to do so using the holistic framework (Intervention 3) as a guide.

Intervention 3: Adopting a holistic (systems) conceptual framework that represents all the key components and interconnections within the system covered by the risk and resilience management process.

What's the Rationale for this?

Risk and resilience management processes need to move from reductionistic to systems approach. A defining feature of a systems approach, and systems thinking, is that it views the behaviour of a system as an interplay of interacting subsystems, in which feedback plays a key role, rather than as a simple chain of cause-effect relationships. A holistic (systems) conceptual framework is a systems tool, to describe (and help thinking about) the different elements of a system and the relationships between them. Such a system-wide view becomes indispensable by providing risk managers with a holistic context that makes explicit the linkages between different components of the system, to locate where specific threats can occur, how they may transfer to other parts of the system and to minimise the risk of "blind spots".

What Key elements does it include?

In the case of agriculture and the food system, such a conceptual framework should incorporate, at a minimum, all the *activities* relating to the production, processing, distribution and utilisation of food, the socio-economic and environmental "drivers" that impact and are impacted by these activities and incorporate the *outcomes* towards which these activities are directed (for example food security, socio-economics (income, employment) and the environment (biodiversity, climate)).

Two conceptual frameworks for food systems are put forward for consideration by the Department. Either of these can be adopted "as is" or be used in the development of a bespoke framework that more specifically reflects the Western Cape agriculture sector. The first is the "food system approach" conceptual framework developed by Wageningen University (van Berkum et al, 2018; Borman et al, 2022) and the second the Evaluation Framework developed by TEEBAgriFood (TEEB, 2018). Key schematics and example of these frameworks are presented in Annex G. While these frameworks were specifically identified and reviewed as part of this evaluation, it is proposed that a more detailed review of these frameworks - to understand their value and potential application - will need to be undertaken by the Department (this falls outside of the scope of this evaluation).

The Holistic Conceptual Framework needs to incorporate/reflect the strategic vision and outcomes defined for the sector (Intervention 4), and inform the ongoing strategic risk management/adaptive process (Intervention 1).

Intervention 4: Ensuring linkages and alignment between the Department's Strategic Outcomes and the risk management processes, holistic framework and networks & forums.

What's the Rationale for this?

Ultimately the identification and assessing of risks, disruptions and crises, and the effectiveness of responses to these, can only be judged against the stated vision, objectives and outcomes defined for the system for which the risk management process is deployed. The Department has a well-defined vision and strategic outcomes that are shown in Figure 7. Beyond the defining and articulation of these, the buy-in of ALL role players in their achievement is essential, hence their predominant place in the framework. The

achievement of greater resilience for the sector in the province rests on a shared vision for the success of Western Cape agriculture and the Province.

What Key elements does it include?

The Systemic Risk Management process (Intervention 1) and the Holistic Conceptual Framework (Intervention 3) need, therefore, to be fundamentally informed by and directed towards the achievement of these outcomes. Similarly, the Internal and External Risk Management Networks and Forums (Intervention 2) need to be fully informed of and aligned in their agreement, understanding and pursuit, of these strategic outcomes.

Intervention 5: Leveraging the core capabilities and capacities to ensure an “enabling environment” for a proactive risk and resilience management process.

What’s the Rationale for this?

The entire Systemic Risk Management Process (Intervention 1), the development of the strategic vision and outcomes for the Department (Intervention 4), the adoption of a suitable Holistic Conceptual Framework (Intervention 3) and the establishment of the required risk management networks and forums (intervention 2) all stands on the organisational strengths and capabilities of the Department – the Key Organisational Enablers. Without this enabling context a risk and resilience management process as envisioned here will not be able to function successfully.

What Key elements does it include?

Seven key elements of this enabling organisational environment are highlighted in the framework:

- **Organisational Leadership and Culture.** *The key enabler to a strategic risk and resilience management process itself is the WCDOA and Provincial culture of “serving the citizens” and the fostering/maintaining of the motivation of employees to proactively manage risk and to “go the extra mile” in times of disruption/crisis.*
- **The organisation’s people.** *A key part of the WCDOA’s culture is the value of “caring” - this starts internally (with WCDOA employees) and flows outwards to citizens (“self-love is the key to loving others”) – employee well-being is where it starts. Also, this necessitates processes of succession planning to ensure the culture is maintained as senior staff come to the end of their careers. The HOD’s “next gen” plan will be an important part of achieving this.*
- **Reliable communication infrastructure & channels.** *This includes both infrastructure (networks, platforms etc.) as well as the communication disciplines (meeting schedules, agendas etc.) needed to ensure open and clear communication internally and externally.*
- **Active networks and trust relationships with key Clients & Stakeholders.** *Proactive engagement with clients and stakeholders to further build relationships, build trust, open lines of communication and to encourage their participation on external risk management networks and forums.*
- **Active networks and trust relationships with key National, Provincial and Local Government Departments.** *Proactive engagement with government departments across the three spheres to build relationships, build trust, open lines of communication and to encourage their participation on external risk management networks and forums. The provincial and local government relationships are good and the silos broken during COVID-19 and the collaborative teamwork across these spheres provide the basis – but regression to old ways and silos needs to be guarded against. For National government the task is more challenging given lower levels of trust and political barriers – building trust, greater understanding of the WC context, prioritising development over politics etc. has to be a priority of the WCDOA.*
- **Reliable, credible, and accessible data & information sources.** *Development of integrated data and information solutions (business intelligence tools) to support proactive risk scanning, crisis monitoring and response monitoring (building off WCDOA’s existing multiple data sources and information provision services). This also includes the extending of data collection capabilities to*

arenas where there are known blind spots, such as food security data from informal markets and settlements.

- **Financial Resources & Management.** Strictly controlled but flexible management of financial resources and budgets. The ability to access needed funds / make funds available is key.