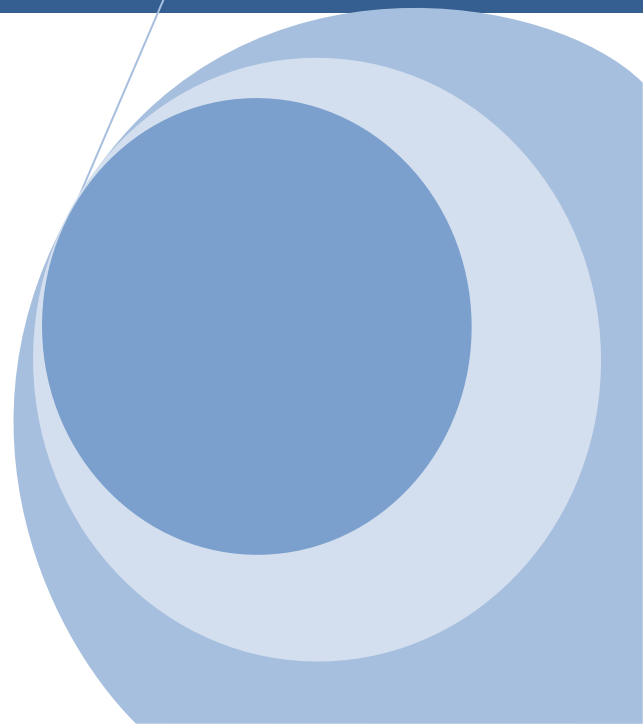


ROUNDTABLE DISCUSSION ON THE STATE OF FOOD SECURITY IN SOUTH AFRICA

Workshop Proceedings



WORKSHOP PROCEEDINGS FOR THE
ROUNDTABLE DISCUSSION ON THE STATE OF FOOD SECURITY IN
SOUTH AFRICA

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AT

THE AGRICULTURAL RESEARCH COUNCIL (ARC)

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HATFIELD,

PRETORIA

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1. SESSION ONE: OPENING AND KEY NOTE ADDRESS

1.1. WELCOME AND ROUNDTABLE DISCUSSION OVERVIEW

- *Dr Shadrack Moephuli*

Dr Shadrack Moephuli welcomed all attendees and delivered a short presentation on NACI/ARC/NRF and the Roundtable Discussion (see Annexure A). Additional commentary on the presentation was as follows:

He advised that both he and Prof. Thomson had been tasked with consulting with the sector and providing advisory notes to the Minister regarding the state of food security in South Africa (SA). The current mandate relates to agriculture and ensuring food security and the analysis required is to include scenario planning and scanning the global environment. He indicated that the issue of food security was an important one for South Africa, as it is for the world, with many economies experiencing difficulties and facing poor prospects for recovery, although some are showing signs of improvement. South Africa is still being affected by the global slump that occurred in 2008, which has had a significant impact on household income and therefore on ability to afford food. This impacts on the quality of the food that people consume and there are possible negative impacts on nutrition and health. For these reasons, it was important to focus on the issue of food security, as without national food security and household food security, there would not be peace in the country.

NACI BACKGROUND:

- was established by statutory act and there are 18 council members, with 2 being present at the workshop.
- Its Councillors are appointed from a wide spectrum, including government, science councils, Non Governmental Organisation, and Business etc.
- The Chairperson is Prof. Cheryl de la Rey.
- The mandate includes: a review of the 1996 white paper on Science and technology (S&T); recommendations on key matters that should be revised; development of a decadal plan on S&T, including a central repository for data, as it is important that the country develop and measure the impact made and the performance; provide rapid advice on energy, water and food security to the Minister and to Cabinet.
- The discussion was a tool to ensure the mandate is met, by providing appropriate advice to the Minister of Science & Technology and to Cabinet.

Dr Moephuli explained the mandate of NACI and clarified the purpose of the roundtable discussion as being to:

- solicit opinions from relevant role players within the agricultural value chain on key issues regarding food security, in order that the Minister of Science & Technology is able to facilitate appropriate solutions
- establish the approach to be used by NACI in the future in developing policy advice for the Minister
- develop a set of key policy recommendations
- provide opportunity for questions, comments and discussion.

1.2. KEYNOTE ADDRESS: FOOD SECURITY IN SOUTH AFRICA

- Prof Sheryl Hendriks

Prof. Sheryl Hendriks delivered the keynote address (see Annexure B), with additional comments provided on the presentation as follows:

The topic is a huge one and therefore only certain matters could be addressed in the time allowed. Additional input on the topic would be provided in later presentations.

The starting point for the discussion was answering the question *What is food security?* One problem seen in the country is that the term means different things to different people. In the first two decades of democracy, the focus has been on increasing food supply; but now that we have a stable supply, the focus may change in the future to under-nourishment. Some trends have been affecting South Africa since 2005 and the country also faces the issue of nutrition transition.

Food security is about having enough food, about the quality of food and about having enough in the future or the income to acquire food. South Africa's Constitution is one of the best in the world and it includes the right to sufficient food and water – for both citizens and migrants. But these rights are contingent on the state having the resources to ensure these rights.

Cognisance is not always taken of the special right of children to nutrition, which is not dependent on the ability of the state to provide nutrition and therefore this right is not conditional. Some delivery of the state's obligation is done through social grants and early childhood development programmes, but the matter of the quality of nutrition provided to children has been neglected. When looking at the statistics and the many ways of defining and measuring the situation, there are no established methods in the country to measure how well the country is doing and what the deficiencies are.

Statistics South Africa (StatsSA) tracks some of the changes over time in terms of some parameters, using the General Household Survey. However, the questions change from one survey iteration to another. One question used is: In the last two years, has anyone in the household gone hungry? Responses indicate that the incidence of household and individual hunger has decreased due to social grants being paid out. However, data on household and individual access to food is derived from four questions on hunger and strategies to cope with hunger, so the data may not be accurate.

When the data is translated into a continuum on food security, it is seen that: hidden hunger is at 16.6%; a sizeable proportion of the population (and number of people) are not receiving adequate nutrition. However, there is pressure on both the state budget and on tax payers who provide the state budget, so: creative thinking regarding the problem is required; Government must do what it can to assist with tackling this problem, but individuals also have to take responsibility for their own nutrition.

While Minister Pandor has indicated that people should participate and be inspired to enter the S&T sector, many children are not receiving the required nutrition that will allow them to do so and it has been shown that a child who is under-nourished in the first two years of life will reflect a 10% loss of income in his/ her life. There is a drop-off in the underweight and wasting categories, but obesity is increasing and the overweight category climbed quickly between 2005 and 2012. South Africa is one of only twelve countries in the world that reflects an increase in stunting. Millenium Development

Goal 1 (MDG 1) is about reducing hunger, but South Africa hasn't managed to make inroads into child nutrition, which is a great concern.

There is a need to guard against analysis-paralysis and to move towards implementing solutions. At national level, there may be enough food, but food has run short in stores as a result of the last drought and the country narrowly escaped a maize deficit, which would have required importation of maize. This would have surfaced other problems, as South Africa does not have the infrastructure to import maize, because of the dilapidated condition of the ports and the port renewal programme only scheduled for 2024 and it is estimated that with the current conditions in the country, it would take 67 days to get grain to certain areas. In addition, the country has to serve its neighbouring countries as well and only Zambia has excess grain at the moment. There are many other issues: at household level, there is the problem of access, as few households produce their own staples, which means there would be a problem in terms of storage and efficiency of scale. Another problem is the quality of diets, with maize being the main component. Load-shedding has brought additional problems, as people cannot cook supper and end up eating bread. Some children have to wait until the power comes back on before dinner is served and this runs into their sleep time. It is therefore important that the many seemingly disconnected issues that affect food security are considered. Consider that some surveys done in the poorest districts of South Africa indicate that being overweight is not a problem amongst the wealthy: amongst poor households, out of 55 children, 20 are underweight and stunted by the age of 5. Children are severely undernourished in their early years and already overweight and stunted by school-going age. This indicates that diets are severely lacking.

The competing policy goals result in a situation where a balancing act is required with the New Growth Path (NGP) and the National Development Plan (NDP), i.e. to create jobs and economic growth while creating sustainability and profitability. So something needs to be done in this regard.

There are multiple policies that focus on food and nutrition, with over 70 programmes at various levels. So while much is being done, the required impact on children is not being seen. The country is highly inefficient and programmes are mis-directed and something needs to be done about this.

The various pieces of legislation indicate exactly what is required and the country needs plans to introduce programmes that lead to household food security and individual food security. However, no coordination is seen: on the ground, people report one department after the other visiting their community and addressing the same matters, without any of them being aware of what the others are doing, with no coordination and no referrals happening, e.g. to social welfare.

South Africa must identify the best options for it to shift people from the right to the left of the scale; but at the same time, we have to consider how to provide income and food, but protection consumers and assets and not compromise food security. The country has a poor savings rate, which means that there is no fall-back for people in lean times, when bus-fares are increased or when Eskom escalates its charges. Also considered that administered prices add more to price increases than do food price increases, e.g. an inflation increase can double the increase in other areas. Therefore, societal changes are required and resilience must be built at household level.

Over 2000 South Africans participated in 11 workshops that were held in the country. They were asked what the country must do i.t.o. food security and the responses indicated five key issues for government to address and programmes that are agriculture-based.

Respondents indicated that government often targets big projects and tries to make a 'big splash', when people actually need simple and cost-effective answers to improve their quality of life. The key elements that were indicated as lacking in all areas was: conversations, financial know-how and policy reform (trade, cooperatives, school feeding programmes, etc.). For example, one respondent reported a community receiving training in agriculture in a language they did not understand. We need to consider the simple things that can make a big difference, e.g. some public works programmes are having a big impact, such as mothers cooking for schools. It was also noted that farmers are pointedly telling Department of Agriculture Forestry and Fisheries (DAFF) that it requires capacity development. So we need better coordination, integrated programmes, to be smarter in the way we work and we need to work in an integrated fashion.

The recommendations provided are based on the input of the workshops done with the 2000 respondents in South Africa, as well as the input provided during discussions held overseas. One of the important aspects requested is certainty, i.e. ten-year security. A stable environment is required to reduce the uncertainty regarding what is going to change when the next administration comes to power and how to hold the next administration to account for what is done by the current administration. Respondents also indicated that they require government to do things with them and not for them. Secondly, resilient systems must be built to cope with drought, pests, diseases and shocks that will affect the country. Thirdly, social grants work in South Africa, but not in other African countries because there are systems to get grants to rural areas. The country needs to piggy-back on the available systems to allow distribution at scale in order to reach the maximum number of people. In addition, the different nutrient requirements of children and adults must be considered and solutions found for the problem of packing all child-required nutrients into small meals for small stomachs and picky eaters.

One approach is to select crops for increased nutrition, as the quality of the food provided is important and not just more food and more boxes being distributed in order to 'tick more boxes' – in this regard there are many programmes that focus on quality and not quantity (number of seed packs, number of food packs, etc.). And the issue of consumption smoothing must be addressed, as many people spend their income in the first few days of the month and then go hungry at month end. Fourthly, coordination is required across sectors, as there is much wasting of resources through duplication and replication. The many opportunities provided by digital technology for referral regarding children is one area that could be focused on. Finally, constant monitoring, evaluation and review are required and the Presidency is taking the five-year review issue seriously in order to consider how to strengthen programmes. But this needs to move beyond Presidency level and infiltrate all levels in order to ensure improvement and development at all levels.

2. SESSION TWO: FORMAL ADDRESS

2.1. INTEGRATING EMERGING FARMERS INTO THE AGRICULTURAL VALUE CHAIN

- Mr Bonang Mohale

Mr Bonang Mohale, the chairperson of the Black management Forum (BMF) delivered a formal address, titled Integrating Emerging Farmers into the Agricultural Value Chain. The details provided included the following:

- Emerging farmers often come from the PDI group, which used to survive on subsistence farming. That system has been decimated and urbanisation continues, which the country is becoming more hungry, more stunted and more malnourished.
- After 21 years of democracy, it is time to talk about how to reintegrate these farmers into the value chain. The joy and peace that was hoped for has not been seen and the country is not growing at the rate required to absorb 150 000 graduates p/a entering the job market, often with inappropriate skills and. Sadly, we are accepting that we are a 3%-increase GDP country, whilst we have to grow at 5.4% in order to talk about redistribution of wealth and not about poverty.
- All around the world, countries are not creating jobs and people now talk of jobless growth, as companies now do more with less people. For example, twenty years ago, Barloworld employed 350 000 people, now they employ 38 000 people and make six times the profit. When we talk about small enterprises, we must talk about SMEs and exclude micro enterprises, which are survivalist enterprises, with only 7% of jobs being created by SMEs. In SA, government is the biggest creator of jobs, which is unsustainable.
- The country cannot continue to have 5 million people responsible for paying tax, with only 11 million gainfully employed and 16 million on social security. The structure of the SA economy reflects the problem: ours is a triangle economy, with the super-rich on the top and the super-poor on the bottom; in sustainable economies around the world, the graphic is a diamond, with the super-rich on the top, the super-poor on the bottom and a fat middle-class in the middle, which creates the sustainable income that the country needs.
- The world is looking at new areas of growth and opportunity and China is coming to Africa, with its 1.2 billion people in 55 countries, speaking 2000 languages. Yet our own marketers continue to talk not about the African market but the European market, with everybody looking for growth everywhere but on the African continent. SA's biggest trading partner is the European Union, with the Netherlands in third place; China is in second place. But we do not consider Zambia or Zimbabwe, where there is double digit growth. In the 15 SADC countries, growth is at 7% on average; but South Africans want to expand and grow overseas, they want to list on the London Stock Exchange; but there is no talk about intra-Africa trade. Now consider the hundreds of thousands of Africans who need to fly west or east and have to first fly to London in order to do so, as there is no infrastructure in Africa and so they fly to their east or west destination via Heathrow. By 2030, one in 2 people in the world will live in Africa, China and India.

- We need to re-look the energy-water-food nexus and how to re-integrate the emerging farmers, as these are difficult times. The incontrovertible truth is that increasing living standards means an increasing demand for energy, for water and for food – but this must be considered against the backdrop of climate change.
- A change in approach is required and government, NGOs and the private sector must all work together to tackle the problem. Currently there is no coordination and even in government departments that perform well, there is no effect on improving the quality of life of the people of SA.
- Water is needed for food production, water is needed for energy production, energy is needed to treat water, energy is needed to transport water – and both are needed to produce food. Policies are needed to address CO2 emissions, which will help to address food production – so a price must be put on emissions. The case for gas is compelling. Also consider the serious problems with spending, e.g. the national utility budgeted R2 billion for open-site works, but then spent R10 billion – and no-one was fired, as would happen in the private sector in such a situation. In the public sector, this type of behaviour results in a promotion.
- More educated people are needed in the agricultural sector, with whom government can discuss food security, as business and government are not cooperating and cannot embark effectively on public private partnerships. Yet there are 3300 shebeens in SA and SAB successfully delivers to them every day. In business, project management ensures every project is delivered on time and on budget, otherwise the responsible person is fired. But this is not the case in government. Food inter-dependence with the two other elements of the nexus is more about water than energy. We remain a 3% growth economy, but would double our economy in five years if we grew at 7% - yet the national utility company effectively wipes off 1% a year – R11 billion a month – through lack of sustainable and reliable energy.
- Agriculture is reliant on 61.5% of our water, yet uses only 3.4% of SA's energy, including for transport and the production of fertiliser. So energy and agriculture do not compete.
- We must consider water management in different areas: Limpopo has the highest use – at 16%.
- Innovation and technology must receive attention. The world authority on solar energy is Germany – with three months of sun per year. Yet while Africa has 12 months of sun, the tertiary institutions cannot develop free solar energy technology and cannot harness wind power for use in agriculture, despite the abundance of wind in the coastal areas.
- Consider also our three mighty rivers in terms of energy. The mighty Zambezi alone has enough water to create hydro electric power for the entire continent and with spare power to export to Europe, as the Victoria Falls confluence can produce 570 000 tons p/minute. SA is also only now starting to look at investing in the mighty Ingwe project. Also consider that some schemes for coal-fired stations are now in the fourth round of planning.
- Consider all the intricacies relating to food, e.g. food supply and demand could grow at a similar rate, but we may have to import meat and other products while exporting maize.

- Water needed by the agricultural sector will grow by 1.4% p/a, while supply will increase at 1% p/a. This means that the deficit will have to be dealt with by ensuring the required infrastructure is built between countries, e.g. dams and canals to the Lesotho Highlands water project. If not, there will be a 2.8 billion cm deficit in terms of demand for water by 2025. Then consider that the required trade-offs will result in declining food production and delivery of water to the public.
- The investment required to develop the infrastructure needed is enormous and there will be competition for the capital required for energy infrastructure development. And then we have to deal with the problem seen with all mega projects in SA, where budgets quadruple over and over after approval, e.g. the R7.2 billion approved for the new pipeline, which was delivered at four times the cost. In addition, required nuclear projects will require trillions of rands by 2050, which also competes with the other capital expenditure projects.
- Additional pressure is being placed by the country's debt, which has now risen to over 50%, with no one State Owned Enterprises (SOE) in good standing at the moment.
- SA must make a contribution to reducing the effects of climate change, otherwise the impact on food supply will be high.
- While the matter of bio-fuels has been agreed at policy level, there is no progress, and this too will compete for water supply.

Mr Mohale concluded his presentation by stating that South Africa's challenges have less to do with the availability of resources and more to do with the ability of the country to plan, lead, organise, manage and coordinate. It has not yet understood that great wars are won by great execution, not great plans. SA has plenty of plans, but there is no execution. The approach in SA is to discuss, discuss and discuss, but not do. On the positive side, SA has been growing at 2% and not many countries can say this: Europe is accelerating to 1% GDP growth. But SA is squandering its democratic dividend, which the majority of its people have not yet experienced.

2.2. ROUNDTABLE DISCUSSION

Discussion time was provided and questions and comments taken on the presentations delivered by Prof Hendriks and Mr Mohale. Responses to questions were also provided. The points raised and responses provided are detailed below.

Question: Regarding social grants: is it advisable to push social grants to pregnant women to solve the problem of child nutrition?

Response: In terms of the social grant, there is discussion regarding extending the social grant to pregnant women, as SA has higher death rates than its neighbours for children up to two years. Help can be provided, but there is an issue with coordination. Also consider that vitamin supplements are supposedly provided by the Department of Health, but there are not always stocks in government pharmacies. The same situation is seen with ARVs. So South Africa does not deliver on its promises.

The additional problem of course, is that we already provide grants up to the age of 18, with 11 million of our 18 million children receiving grants. But when the child leaves school, the household loses the grant income and the child becomes unemployed and has little prospect of getting a job; which means perpetuation of the problem.

There is no dignity for anyone in being dependent on the State. Nor is there dignity for the State to have 16 million people dependent on a grant to make ends meet, and this is not sustainable. We have to create jobs in order for people to create their own sustainability. South Africa has the only diamond company in the world that is not profitable: *Alexkor*. We have to deal with the problem of Eskom. An then we are a people who builds buildings but does not maintain them, preferring to abandon them and build new ones, because then we can issue yet another tender and there will be something for someone to 'eat' – compare this with buildings in Europe that were built in the 14th century and that are still being preserved. Add to this the problem of boards: instead of appointing a CEO and then getting out of the way, the board instructs the CEO and the chairman to hire wives as vice presidents and so on, because the culture of patronage in our country is so entrenched. The CEO is not performing his role of appointing a team to ensure delivering on targets agreed. How can we possibly solve a problem of a food crisis with this situation? Government needs to get out of Eskom's way and stop the political interference – but people won't say what needs to be said, as they then won't get the next tender that is issued.

Question: The 2 million ton deficit in maize production was mentioned. Could you elaborate on this please?

Response: There was just enough maize harvest to meet the country's immediate requirements, but no extra to sell. In this regard we need to consider the problem of not having the capacity to import and distribute maize because of the poor infrastructure, including ports, railways and roads.

Comment: Regarding the role of business in advancing access to food in SA, we need to consider all parameters, e.g. the huge acres of land being lost to coal mining in Mpumalanga. Also, innovation is needed, as other countries do not allow open-cast mining to ensure the retention of the top layer of soil for farming.

Response: Nowhere else in the world has there been an attempt to deal with this problem without all the social partners coming together to figure out what to do. Every other depressed economy has done so. However, it breaks my heart that in SA we are trying to get rid of everyone and anyone who knows anything and we only appoint those who know nothing at all. Elsewhere in the world, those with knowledge are appointed into government and they later turn to lucrative consulting careers. But this doesn't happen in Africa: politicians only know about politics and don't want to go back to their villages at the end of their tenure, so they need to stay in their jobs for ever. Public Private Partnerships can prove to be very strong mechanisms for tackling such problems, but proper incentives are needed. Consider that in 1996 the first public-private hospital was opened, with all difficult cases in the country being sent there. The hospital worked well and delivered excellent outcomes, but because of our government, this approach was cancelled because some people were not getting enough to eat, even though the same results were not seen in a single one of the other

26 hospitals in KZN. This is because SA has the only genuine communists in government in the world – nowhere in the world does communism work: China talks about communism on a superficial level, but is the most money-driven economy; even Cuba is no longer communist. But in SA, we have genuine communists in government. And these people ensure that public private partnerships are killed and tenders are given to dodgy companies, with white sheets later being washed in rivers and hung on bushes. Business and government need to work hand in hand to achieve what neither can do alone – and this would be done if we genuinely cared about improving the lives of our people because we would not care where the help comes from. But this is not happening in agriculture and food security. Of all farms re-distributed, 90% are now bare and non-productive, with equipment handed over being sold by the recipients. Constant monitoring, evaluation and review is non-existent – and this is basic Management 101 that is being ignored.

Comment: The presentations delivered were very good and much appreciated, especially the linking of statistics; however, the problem of implementation remains. We need to see trends being related to a roadmap to nutrition in 2017. There is also a challenge with linking water, food security and energy and a roadmap is needed for this.

Response: If one looks at energy transitions and the nexus that we spoke about, it can be seen that Africa is poor by choice, not because of a lack of resources. There is: the problem of tyranny; and of having to choose between business and agriculture, when we could have both.

Question: No economy has developed without developing its agricultural system and we need all our farmers to be part of a single system that leads to security of food production. Any strong recommendations in this regard?

Response: Agricultural development is the foundation of all successful economies, but the situation is different in SA. So unless we change our perception of food security, we won't realise that agriculture is important and is what feeds us. Not everybody will be a producer and everybody self-producing is not the answer. Consider the approach used in China, which invested in 12 strategic interventions, some with multiple five-year iterations. In SA we support everything with a sprinkling to show support and so do not work strategically. Business in SA is successful because it is strategic: a plan is produced and followed through. There is no hopping, skipping and jumping from one thing to another continuously. In government it is just change, change, change. We need to change our perspective of the agricultural industry and we must be strategic and this means that we need sustainable commercial farming and the integration of all small farmers into agricultural organisations, e.g. Grain SA.

Farming is critical to feeding one's own people and we need to look at what is being done elsewhere. Wind farms could be viable in the three Capes and the technology is already available. Consider recycling. Study the models used by China and Singapore. Brazil is now producing large quantities of sugar cane because it had trucks delivering lime to cover unsuitable soil in the north for 47 months – while here at home, KZN produces the best sugar cane in the world.

In South Africa, we don't look at feeding our people on a sustainable basis. Consider China: in 2010 it focussed on its five-year plan and on nothing else; it has now surpassed Japan as the second biggest economy in the world. In SA, the Reconstruction and Development Programme (RDP) wasn't given a chance to gain traction – people became bored with it and new presidents come up with new plans (GEAR, ASGISA, NDP) and even these don't have a single focus. So no-one in SA knows what it is we

are supposed to be doing. China didn't keep planning repeatedly to perfect the plan and it didn't pick a perfect plan: it picked an imperfect plan, which they implemented and fine-tuned during implementation – that is what is done with a plan. But in South Africa, the requirement is for a perfect plan before we do anything – which means nothing is ever done. It is not wonder, then that we are always hungry.

3. SESSION THREE: PRESENTATIONS & DISCUSSIONS

3.1. PRESENTATION: INSTRUMENTS SUPPORTING FOOD SECURITY INITIATIVES

- Mr Sibongiseni Ndimande

Mr Sibongiseni Ndimande from the Department of Agriculture Forestry and Fisheries (DAFF) delivered the presentation, which covered policy, implementation plan, interventions, etc. The presentation is attached as Annexure C.

Mr Ndimande provided the following additional comments during the presentation:

- Instruments could be anything, but the high level document was chosen, as it was considered most appropriate for the audience.
- Plans are being developed and these are transiting into implementation.
- Food nutrition and security is multi-faceted, so the Department cannot be a panacea; it needs to collaborate with other departments and we need to allow other ministries to do their work, while we focus on ours.
- Food security is defined from a policy perspective and this is key when integrating what business and government does, as government sees it one way, but business sees it as a commodity that allows business to make money. So what is the answer to this conundrum? Legal input may be required.
- The food and nutrition security mandate is a constitutional mandate, as are other key documents, e.g. nutrition roadmap, APAP, CRDP.
- National policy has been approved, which builds on the 2002 document. The process commenced ten years ago and has involved much consultation and capacity building, as capacity is required to understand what you are dealing with. It is noted that the question keeps being asked: When will you transfer from planning to implementing? But perhaps we can also discuss other matters on this topic.
- Food and nutritional security have received attention by the Presidency and the DPME and the Office of the Deputy President will deal with the issue going forward. They will do the coordination that is required and DPME will act as the lead to ensure that the issues and coordination are dealt with in future.
- Key to the issue of food and nutrition security is that different population groups have different needs. Children need small packages of highly nutritious food.
- We have to see the expression of access and control in our plans and activities and SA must have control over its access to food. This is a big dream that looks at the NDP for 2030, so we still have a long way to go.
- SA doesn't have high potential soil in the main: only 12% of the soil is high potential soil; 22% of the soil is suitable for production. Some of both types of soil have been redistributed and we have enough food for our people, but we are not food secure: 22.5% of households have a challenge i.t.o. access to food, so there is no full sustenance for all. Key issues are affordability and productivity and droughts affect access. Affordability can be addressed through wages and we have already regulated agriculture to rural areas, created a wage-based economy and given the food industry to control prices.

- Yet food access remains a problem: 14.1 SA citizens face the problem of access to food security and the number is growing. If we look at the inadequate access by province, KZN has the biggest problem. Government must take this into consideration when determining policies and therefore certain provinces will become a priority.
 - There is a projected 1% less crop from the 2014 season because of the drought, with 23.4 t/p/h being achieved – the lowest ever – which will see a 27% increase in food across the board, including for white bread, chicken feed, etc.
 - The impact of drought goes far beyond impacting on maize as a commodity: it affects all major commodities. The major changes being seen indicate that climate change is with us and we have to take this into consideration.
 - Limpopo has the highest level of household involvement in agriculture, but the lowest level of food security.
-
- The nutrition challenges show a positive trajectory and the stunting statistics provide a good opportunity to take government to task, as government has to act i.t.o. the Constitution.
 - The pillars of national policy are linked to vision 2030 and require safe and nutritious food, as per the policy objectives.
 - Research must be advanced beyond sweet potato enrichment, e.g. to beans. There is much work to be done i.t.o. bio-fortification and market participation must also be improved.
 - Enablers include a firm foundation for the policy: if there is no baseline for food security programmes, they will always fall short, as there is no way to measure effectiveness. This requires the support of DST and the Centre of Excellence.
-
- Risk management must include cross-border control of pests and diseases.
 - With the advisory council, coordination will be enforced. Forums for cooperation are required, as government cannot deal with the problem alone.
 - The implementation plan will be finalised by end-September and is being led by the Deputy President. One of the objectives is to establish food value chains for rural economies, which is at the heart of the challenges regarding food affordability. If this problem is reversed, urbanisation could be reduced.
-
- Production without access to markets will not solve the problems we are dealing with, therefore micro producers must be streamlined into the system.
 - The approach adopted by government is the agricultural cluster chain approach.
 - The government food purchase programme is part of the rural food programme, with spending of R7.9 billion and then R10 billion on food for school children. Farmers have to support this and government must integrate small farmers into this food chain. This will start in the North West, with a government food purchase programme to ensure small farmers are integrated. However, they must be made aware of the problem of climate change.

3.2 THE MARKETING OF AGRICULTURAL PRODUCTS ACT

- Dr Simphiwe Ngqangweni

Dr Simphiwe Ngqangweni from the National Agricultural Marketing Council (NAMC) delivered a presentation titled The Marketing of Agricultural Products Act – (please see Annexure D). He provided the following additional comments during the presentation:

The topic provided is a broad one, therefore the presentation was divided into two key themes: the old era of the previous Marketing Act; the current situation.

The Marketing Act No. 26 of 1937 was one of the instruments used to segregate agriculture and intensify support for white commercial farmers. Control boards used the levies collected to finance industry related activities, including research. Some aspects of the interventions were retained after 1994. The Act was criticised for reducing the welfare of the overall SA nation and its citizens and the control of new industry entering the sector. The environment started to change when a committee was appointed to look at the act and advise the way forward. The Committee found that the Act did not achieve its intended goals and recommended that it be scrapped to open the way for a deregulated environment. The new Marketing of Agricultural Products Act No. 47 of 1996 was legislated and NAMC was established to manage the process of transition from a regulated environment to a deregulated environment.

A broad mandate was provided and alternative processes and procedures had to be determined with the scrapping of the previous Act. However, government still approved the statutory levies collected that were used to fund the activities needed in the industry. The role of NAMC included providing advice to the Minister on levies; but there were four broad objectives. As NAMC is a small institution, with limited resources, there is a predicament i.t.o. what can be done and it is currently there to advise the Minister and has limited powers to implement programmes. NAMC focus areas include: to provide research on markets and economic matters; to advise the Minister on matters relating to marketing; to advise on industry levies; to advise on transformation and the entry of new businesses into the sector. This includes emerging farmers and how industry trusts allocate funding, and how this affects the entry of new businesses into the sector. The industry trusts were set up when the assets of the old control boards were transferred to them and the trusts are supposed to fund specific industry functions that are deemed useful to the industry. NAMC also collaborates with DAFF, the provinces and other stakeholders, in order to link farmers to the market; so it is unable to implement broad programmes that can make a broad impact. It can only contribute to existing programmes through partner programmes.

Many industry bodies collect levies and the funds are spent mostly on research.

A number of industry trusts operate, with total assets currently at R2+ billion.

The impact of transition since the changes were effected has been considered, as a committee was tasked with this. Little progress has been made with research, information, advancing black agri-business enterprises, changing the composition of the sector and the direction of trade.

There must be less reliance on government, except i.t.o. of policy development. Broader agricultural legislation is needed to guide government and industry i.t.o. programmes to be implemented in sectors and this should also guide the Marketing of Agricultural Products Act. While APAP exists, the

question is whether or not the plan is receiving broad support nationally. We should also consider binding legislation, as there will then be unequivocal support.

3.3. THE BIG QUESTION: MINING, AGRICULTURE, FOOD SECURITY COMPLEX

- Mr Gerhard van der Burgh

Mr Gerhard van der Burgh from the Bureau For Food and Agricultural Policy (BFAP) delivered this presentation (see Annexure E) and provided the following additional comments:

The topic is very broad, but very important and it is unfortunate that the connection between mining and agriculture and agriculture and food security is not much reviewed in SA. The details provided in the presentation relate to a pilot study done in Mpumalanga.

The map of the mineral seams in SA indicates: coal in the north of Mpumalanga and in the Free State; diamonds, oil, gas and other resources in the Karoo and the Northern Cape. The map was used to look at the resources available and which would most affect agriculture and therefore food security in SA. The map of arable land in SA indicates: insufficient land capability; many resources, but these are not used well; there are limitations i.t.o. water and where the agricultural land is. Mpumalanga indicates 1.5% of the dark green soil in the country, with 50% of the country's soil of this type occurring in Mpumalanga; therefore there is very little of this type of land. (This type of soil is similar to that in Brazil, which yields 8 – 10 tons of maize.)

Also consider how land suitability relates to crop suitability. Resources are available, but where do we achieve the highest return? The answer is provided by the coloured areas of the map. Remember also that climate and rain has an effect on agriculture and that there is a limit to the areas that can produce maize, as lack of infrastructure then acts as a limitation. All silos and railways were previously located in the central areas, where maize is produced. Maize is one of the top three foods consumed in SA by the LSM 1 – 4 groups.

Mpumalanga reflects a particularly bleak picture, as everything in Mpumalanga is now being destroyed. The dark areas of the map indicate where mining has bought agricultural land; the pink areas are where prospecting is taking place. Mpumalanga is the country's niche area of high potential soils, but if all mining takes place, land ownership will change. However, not all land will be mined and much more research is needed on these matters. With consumers, there is the problem of 37% of expenditure being on food in the LSM 1 – 4 groups.

The pilot study focussed on the Delmas/Ogies/Leandra areas, which are highly productive land: modelling and forecasting showed that about 450 000 tons of maize would be taken out of the market if this area was removed from the agricultural industry, which translates into a 15% increase in the price of maize. However, we would also see an equilibrium effect, as farmers in the Free State would find the maize price attractive again, if that land was removed from agriculture, and they would move away from soy beans, etc. But then chicken feed would be priced higher. So one needs to consider the impact of mining on land, commodities, food prices, etc.

Topsoil can be rehabilitated to produce cash crops, but the move to grass pastures is expensive to maintain.

More research is required on both surface and underground mining, as they may be surface collapse or degradation and we don't know all the impact of this.

Also consider the pollution from the collieries, including Springboklaagte Mining: how much money do families have for healthcare if they spend 37% of their income on food?

We need to look at where we can find suitable hectares for maize in the Eastern Cape, remembering that suitable climate is driven by rainfall. Also consider the cost factor, as we don't need subsistence farmers – we need farmers who link in to the agro value system. Also consider the problem of slopes above 9-10% in the Eastern Cape. The slopes in the Free State are much lower, as the land is flat, which is why is much more effective. Two additional problems with the Eastern Cape are high population density and soil density.

All the answers and figures are not yet available, but a second paper will be available at end September. From the pilot study, we can then consider the national perspective and environmental factors and even grow the nexus. For example, consider the financial contribution of the two sectors (mining and agriculture) since the 1940s. Mining is now 9% of GDP and agriculture 3%. Once all the results are available, additional forums will be required to present the results.

3.4. IMPROVING NUTRITION OUTCOMES THROUGH OPTIMISED AGRICULTURAL INVESTMENTS

- Prof Simbarashe Sibanda

Prof. Simbarashe Sibanda delivered a presentation titled Improving Nutrition Outcomes through Optimised Agricultural Investments (ATONU). Additional comments provided during the presentation were as follows:

The issue of malnutrition in Africa is well understood and it is the continent with the highest burden of child nutrition. SA's agricultural contribution to GDP is less than 5%, which is completely different to the rest of Africa. There are also issues relating to culture, livelihood, women and decisions made at household level. 65% of the population is dependent on wages to access food security. Food is meant to come from agriculture and there are five possible pathways to positive contribution at household level; therefore matters become complex, e.g. decision on how money is used to improved diets – and we have all heard that food prices can be brought down by government policy.

There are a number of points in the agriculture value chain at which agriculture can affect what ends up on the plate on the table, e.g.: bio-fortification; the waste seen from storage and handling; agro-toxins, which are a major problem in other countries in Africa, but not as much of a problem in SA; issues relating to the environment and gender, etc. All provide potential points for agriculture to impact positively on nutrition. Evidence is needed at both policy and intervention level, as intuition is often used i.t.o. the practicalities on the ground, but there is not always knowledge or understanding about why.

In the rest of Africa, but not in SA, in the last decade there have been real positive increases in productivity and growth in the agricultural area – but, paradoxically, also the highest malnutrition rates.

The Theory of Change shows how we can end up with a positive nutrition outcome. We want to see agricultural products that benefit the smallholder farmer, especially women and children up to the first 1000 days. Sometimes it is too late to start an intervention post-birth, as stunting may have already taken place.

It is important that the key research questions be asked in order to deliver positive nutrition outcomes, including questions regarding: behaviour change, knowledge of food nutrition, etc.; how to improve the design of programmes and what capacity must be built among participants; how agriculture and health can work together effectively to ensure good nutrition. The last is important as health focuses on the curative aspect and the most immediate causes of malnutrition, whilst agriculture must address the underlying causes of malnutrition, e.g. should we spend money on vitamins and food for school-goers or on producing more and better food. There are many points at which to trigger changes and specific questions needs to be asked at different points; but there are also cross-cutting issues.

The ATONU project needs to deliver evidence for future interventions. The project works with other projects that are already in place, but that don't incorporate nutrition, to, for example, intervene to reduce leakages that lead to lower nutrient content, etc. There is such a range of interventions that must be considered i.t.o. agriculture that policy makers must ask questions about what are the best options, given the limited resources – which means the financials are important. Prioritised commodities vary from country to country and the ATONU project is active in four countries: Ethiopia, Nigeria, Tanzania and Ghana or Uganda.

The project is funded by the Gates Foundation and the project partners include: three African institutions; 3 British institutions; 1 American institution. The project is now in the pilot phase and once the evidence has been obtained it will be upscaled to the other countries. Ultimately, the project partners want to see healthier families, particularly in the first 1000 days of life.

3.5. COMMUNAL AND HOUSEHOLD MODEL FOR FOOD SECURITY

- Mr Simon Baloyi

Mr Simon Baloyi delivered a presentation on the NDA and not the scheduled case study presentation (Communal and Household Model for Food Security).

The NDA is a public entity that reports to Parliament through the Department of Social Development. One problem is the high number of non-profits that register, but disappear six months later as they cannot operate efficiently and there is a need to ensure these organisations are sustainable and can deliver to those in need. The NDA model sees it as delivering at community level. It wants to see civil society organisations enabled to enter the open market and to be self-sustaining.

The NDA works with Early Childhood Development (ECD) centres and income generation, with funding projects falling under income generation, as well as with food security projects in the form of food gardens. The bigger programme is i.t.o. capacity building and assistance is required with the learning institutions on this and with the research that is required. Most ECD projects are in informal settlements and we assist with setting up food gardens in yards. We have also set up household and community gardens in townships and rural areas. But the capacity gap remains, as people do not have the knowledge of how to produce food for themselves. Our intention is to work with all parties that participate in food production, but our question is how do we bring partners on board to help us upscale small production in villages and townships? There is a challenge of a limited budget, with funds being injected into the communities.

There is a limit to the work that can be done and more funding is required, even though the number of beneficiaries has been increasing, as Treasury funds are meant to be used to facilitate what we are doing and funding should come from donors and the public sector. There is a challenge with sustainability of projects because of the problem of incapacity, and even when mentorships are set up and people are mentored, they then just vanish. Additional challenges relate to governance and the withdrawal that we see on most projects: even though project workshops explain that the project is for own benefit, people still expect paying jobs and then when they are given equipment they sell it for income. There is understanding that you cannot set up projects from the top down, as this doesn't help people. There is also a capacity problem at the NDA to provide technical support for household gardens and food production processes and the NDA requires assistance from other institutions that have this capacity.

In conclusion, Mr Baloyi said that he was happy to hear that policy is being developed to deal with the lack of integration, as the current system will not succeed.

3.6 ROUNDTABLE DISCUSSION

Dr Moephuli thanked all the presentations and opened the floor for questions and comment, while asking all attendees to not the consequences of good agricultural practices that had been shared.

Question: What is your attitude to subsidies for farmers?

Response: We belong to a community and a world of cultures that subscribe to rules and that manages international trade and certain support is allowed at certain levels and in certain categories. However, the idea is to avoid direct subsidies to farmers and to rather focus on water supply. Nevertheless, there is a plan for basic support for emerging farmers and a comprehensive support plan. Many other programmes also support agriculture directly.

Question: I was dumfounded during the NDA presentation and the disclosure regarding the lack of capacity. Why have they not disbursed the funds to the organisations that have the capacity and that can run the programmes, e.g. ARC?

Response: The question is relevant, as there is now a spotlight on the NDA and why it is fighting cooperatives. NDA is a development agency, not an implementation agency. But it is failing to do this and not working with all agencies of state and international donors. Sub-section 4.1 says the NDA must act as a conduit for funding and that is what we are trying to do, while running many security programmes in the community.

Question: What informed the selection the criteria of those involved in the current ATONU projects?

Response: The most obvious criterion was malnutrition levels and the map indicated two countries that are performing better than others (Tanzania and Ethiopia); however, there are pockets of high malnutrition within those countries. The second criterion was the role of agriculture in the economy and particularly small agriculture, which may be the reason for not coming to SA, as the small agriculture holder is not important to the bigger agriculture sector. Another issue was evidence to support the agriculture to nutrition impact and where projects were already in place where we could collect research data. Another issue was the readiness of the country to support the project. Also, the project is funded by the Gates Foundation and the Foundation specified where the focus would be. With the selection of individual projects, there is a rigorous list of criteria.

Question: Where is the innovation space in all of what is happening, i.e. new technologies and their utilisation? Furthermore, how are businesses and agri-businesses involved in this aspect?

Response: We are Science & Technology and the most important aspect is the biotechnology strategy, which is the general technology we are looking at as the DST.

Question: Is that the only innovation there is? The issue is much bigger and we need to look widely, e.g. animal medicines, diagnostics on farms. But this is just not seen, even if it is there.

Response: Those technologies are in place. One issue raised today is that there must be a focus on specific investment in R&D to incentivise producers to increase agricultural production and enable agriculture to be resilient to climate change. While speakers alluded to this, there was no presentation on the various initiatives that are focused on making the agricultural sector more productive and higher yielding, e.g. vaccines, pest and disease management, etc. What NACI is trying to do is pull out the existing key initiatives to determine the gaps in understanding food security and

what must be done. For example, we know there are many policies, but how does one make them effective?

Question: The DST has a bio-technology strategy and is finalising additional instruments on bio-technology and a bio-economy. Animal improvement and animal health are themes that are included. However, there is a duplicity of policies and of projects and DST does not want to fund another slew of more of the same; it wants to bring together all role players in a specific area and determine what must be done and then design those projects that should be supported. The bio-economy strategy, for example, wants to ensure it works smart and not in parallel with something else.

Question: Is there drought-resistant maize?

Comment: One of the major issues in agriculture is the variability of grain supply. In drought years, there is not enough and the price rises; in good years the price drops and only what is required for that season is bought. In order to stabilise food security we must stabilise water and build big enough dams to see us through the droughts. But even this may not be enough, as irrigation cannot make up for the losses of a drought year: to produce ten tons of crop through irrigation, you have to put in 10k tons of water and then you have to store twice that figure to ensure that figure is available. So we are trying to stabilise crop production by storing – and there is a place for that. But it is not the answer: we must concentrate on storing grain. We need to follow the age-old tradition that we first read about in Genesis, with grain being stored in good years and being used in lean years. This approach will have the double impact of stabilising agriculture as well. Now we have the ridiculous situation of farmers going bankrupt in good years because the price is too low. What is needed is a system of producing more than we need and storing it and a policy to buy up all the grain as stock for the dry years, so that we don't have to import it. This will stabilise both food and water and will also stabilise the price of grain and is a lot more logical than running around employing more and more people to ensure more water, etc.

Response: The suggestion is noted.

Comment: Dr van der Berg's presentation was most insightful, especially regarding the shrinking level of agriculture in the country and the Eastern Cape perhaps becoming the food basket for SA. This leads to the question: how do we not lose valuable agricultural land to mining and other industries. This is so important and who is doing it: Department of Agriculture or the DST or the Department of Rural Development? We must ensure that valuable agricultural land is not used for other purposes. Empirical evidence has been provided by the university, but we are pouring money into other faculties – so can we look at a model where we have agricultural universities and say we have land in the Eastern Cape, but we need to understand how to help the PDIs turn the land into the food basket for SA and ensure we are a food secure country.

Comment: An additional comment was provided from the floor, i.e.: This session is complete and the Minister will receive a report; however, NACI should act as facilitator or custodian champion for the partnerships that emerged during the session. NACI should take all issues into account and identify five comprehensive and most important ones to be taken to the Minister. The BMF participated today, not just to listen, but to hear what it can do to provide support, and it doesn't want to come back again next year and talk about the same things – we must show progress.

Response: At the beginning of the session, it was indicated that NACI will develop a plan for DST that will explore key issues for the next ten years, considering all key inputs. The work done during the roundtable discussion would be presented to the Minister of S&T for consideration; it will include the role of stakeholder, what they must do and how to get them involved further and we have noted how government departments are not sharing and mobilising resources. Ten years ago, DST did a study on the various policies in different sectors and what came out was the need for coherence and policy coordination – hence the birth of NACI, with a number of the recommendations being incorporated in the new-look NACI, including heads of science councils providing policy advice. However, the comments have been noted and further input will be requested if necessary.

4. SESSION FOUR: WAY FORWARD AND RECOMMENDATIONS

4.1 WAY FORWARD AND RECOMMENDATIONS

- Prof Jennifer Thomson

Prof. Jennifer Thomson summed up the roundtable discussion and indicated the way forward and the recommendations, as follows:

- 1) In summing up what has been said, my comments are geared towards the NACI report that is required and what we can include in that report.
- 2) Everybody is talking about coordination and working together, as we have so many projects, programmes, instruments and entities. Let's not plan any more – let's do. It is good to hear that food security is now under the ministry of the Vice President, as all departments will then be involved and hopefully the message of integration will then get through to all players and we can reduce the overlap of department activities and policies.
- 3) We must get doing, not get planning.
- 4) We need to bring in the private sector, but this means that incentives are required to make it attractive for them to participate – so we need to think about the problem beyond government and think about the opportunities that can be provided by the corporates. There is tension between food as a commodity used to make money and food as a human right, especially i.t.o. children, but we can marry the two by providing the right incentives for the sector.
- 5) Linkages must be created and all departments brought into the discussion, including Education. One problem is a lack of information and not understanding that it is not healthy to eat maize three times a day.
- 6) There is insufficient data tracking. We must improve systems to link food production to knowledge about where maize or rice or any other food can be obtained and where to store it and how to transport it. The problem is not limited to water – think about road and rail transportation.
- 7) There is a lack of certainty i.t.o. policy, so established white farmers who produce most of the food are not investing or employing, as they are unsure about land tenure. This must be cleared up, so that they don't just 'give up'.
- 8) Emerging farmers can't just be given land: this does not work and they need mentoring, equipment, etc., as when they are given land and equipment, they don't know what to do.
- 9) No subsistence farmer wants to remain a subsistence farmer all his life. So we have to ensure they become commercial farmers. Two problems seen in East Africa are: rain and markets. And again, the problem is: markets; markets; markets. Our markets should be Africa, which is on our doorstep – not Europe.
- 10) There is an issue about capacity development in departments i.t.o. agricultural matters.
- 11) Consistency and coordination between departments is required, e.g. we know about the problem of no ARVs on shelves, about not having the right paperwork for certain drugs and DTI not talking to the Department of Health. The Office of the Deputy President must ensure there is no breakdown in communication, as it is our children who bear the burden of ineptness in government departments.
- 12) We need a diamond shape and not a triangle for SA's economy.
- 13) Monitoring and evaluation must be done continuously – you cannot put something in place and not check on how it is performing. Measurements must be taken in order that

improvements can be made, and this means we must know what it is we want to measure. This is a tricky exercise, but we must have M&E mechanisms to determine whether or not we are making a difference in the lives of children.

- 14) A maize shortage nearly happened: if it happens in future, how will we cope i.t.o. storage, ports, transportation, etc.
- 15) The maize triangle is affected, not just by mining: housing is also taking good land in order to provide housing in convenient locations, with local governments advantaging themselves over food security and the larger population.
- 16) There are problems with mountains in the Eastern Cape. There are problems with mines in the maize triangle.
- 17) An inter-disciplinary approach is required with research; but university departments don't talk to each other. The NRF tries to provide incentives, but they don't work. A broad research programme is required and we have to break down the silos in government, in research institutions and in university departments.
- 18) We must consider the gender dimension and the importance of the first 1000 days, as it is mothers who are responsible in this regard.
- 19) Innovation and technology is not just the bio-economy and bio-technology; it is also mechanisation. And we mustn't forget the innovation aspect.

4.2 CLOSURE

Dr Shadrack Moephuli thanked all attendees for their presence and participation.

ABBREVIATIONS AND ACRONYMS

APAP	Agricultural Policy Action Plan
ARC	Agricultural Research Council
ARV	Anti-Retroviral
ASGISA	Accelerated and Shared Growth Initiative for South Africa
ATONU	Improving Nutrition Outcomes through Optimised Agricultural Investments
BFAP	Bureau for Food and Agricultural Policy
BMF	Black Management Forum
CEO	Chief Executive Officer
CRDP	Comprehensive Rural Development Programme
DAFF	Department of Agriculture, Forestry and Fisheries
DPME	Department of Planning, Monitoring and Evaluation
DST	Department of Science & Technology
DTI	Department of Trade and Industry
ECD	Early Childhood Development
FANRPAN	Food, Agriculture and Natural Resources Policy Analysis Network.
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution
IT	Information Technology
i.t.o.	in terms of
KZN	KwaZulu-Natal
LDC	Least Developing Countries
M&E	Monitoring and Evaluation
NACI	National Advisory Council on Innovation
NAMC	National Agricultural Marketing Council
NDA	National Development Agency
NDP	National Development Plan
NGP	New Growth Path
NRF	National Research Foundation
NSI	National System of Innovation
PDI	Previously Disadvantaged Individual
R&D	Research and Development
RDP	Reconstruction and Development Programme
SA	South Africa
SAB	South African Breweries
SCM	Supply Chain Management
S&T	Science and Technology
StatsSA	Statistics South Africa
UN	United Nations
WRC	Water Research Commission

ATTENDANCE LIST

Title	Name & Surname	Organisation
Mr	Ben Durham	Department of Science and Technology
Mr	Gideon Ralepeli	SENWES
Mr	Chrys Matubatuba	National Development Agency
Ms	Beulla Mathebula	Department of Science and Technology
Prof.	Mary Scholes	Wits University
Dr	Shadrack Moephuli	National Advisory Council on Innovation
Dr	Bongani Maseko	AFRICABIO
Mr	Pullen Bob	South African Academy of Engineering
Mr	Boy Mediro	Gauteng Department of Agriculture and Rural Development
Prof	Dave Berger	University of Pretoria
Ms	Boipelo Tlang	Gauteng Department of Agriculture and Rural Development
Ms	Elizabeth Mampane	Gauteng Department of Agriculture and Rural Development
Dr.	Simphiwe Ngqangweni	National Agricultural Marketing Council
Mr	Themba Dlamini	Black Management Forum
Prof.	Lise Korsten	University of Pretoria
Prof.	Anne Grobler	North West University
Prof.	Roelf Sandenbergh	University of Pretoria
Dr	Siyavuya Bulani	Academy of Science of South Africa
Ms.	Maria Molokomme	Human Science Research Council
Dr.	Maryke Carstens	Forestry and Agricultural Biotechnology Institute
Mr	Bonang Mohale	Black Management Forum
Mr	Gerhard van der Burgh	Bureau of Food and Agriculture Policy
Prof.	Simbarashe Sibanda	Food, Agriculture and Natural Resources Policy Analysis Network
Mr	Sibongiseni Ndimande	Department of Agriculture, Forestry and Fisheries
Mr	Simon Baloyi	National Development Agency
Prof.	Sheryl Hendriks	University of Pretoria
Dr	Chris Herold	South African Academy of Engineering
Dr	Eugenia Barros	Council for Scientific and Industrial Research
Mr	Jabulani Mathebula	Human Science Research Council
Ms	Lorato Matthews	Gauteng Department of Agriculture and Rural Development
Ms	Bontle Khambula	Gauteng Department of Agriculture and Rural Development
Prof.	Jennifer Thomson	National Advisory Council on Innovation
Ms	Mavis Masia	National Advisory Council on Innovation
Mr	Benny Nhlapo	National Advisory Council on Innovation
Ms	Thandokazi Teti	National Advisory Council on Innovation
Ms	Rudzani Maila	National Advisory Council on Innovation
Ms	Charlotte Mzolo	National Advisory Council on Innovation
Mr	Petrus Letaba	National Advisory Council on Innovation
Dr	Ntsane Moleleki	National Advisory Council on Innovation
Mr	Nyakallo Tsatsi	National Advisory Council on Innovation
Mr	Lucky Mkhonza	National Development Agency
Ms.	Lehlogonolo Ratlabyana	National Development Agency