KEY NOTE ADDRESS TO AFASA AGRI-BUSINESS TRANSFORMATION CONFERENCE "Farmers Growing South Africa: Creating Jobs and Trade Opportunities"

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IMVELO SAFARI, MANGAUNG

FREE STATE

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Motsepe Foundation Chairperson, Dr. Patrice Motsepe

Leadership of AFSA

Hon Members of Parliament, NCOP and Legislators

Councilors

Distinguished guests

Members of the Media

Ladies and Gentlemen

INTODUCTION

1. The month of October we will cherish the contribution by one of the finest leaders the African National Congress, South Africa and continent has ever produced, President Oliver Reginald Tambo affectionately known as O. R. would have turned 102 years old on the 27th October 2019.

2. As a true revolutionary he worked tirelessly and selfless in pursuit of our ideals as envisioned in the freedom charter in building a national democratic society.

3. His words correctly capture the essence of this society when he said "We seek to create a united Democratic and non-racial society. We have a vision of South Africa in which black and white shall live and work together as equals in conditions of peace and prosperity. Using the power you derive from the discovery of the truth about racism in South Africa, you will help us to remake our part of the world into a corner of the globe on which all -- of which all of humanity can be proud." - A quote from Oliver Tambo speaking at Georgetown University on January 27, 1987.

4. Over the last twenty five years we have made strides in building a truly united, nonracial, nonsexist, democratic and prosperous society but we are the first to admit that more still needs to be done.

Agriculture is an Apex Priority for South Africa and continent

5. HE President Cyril Ramaphosa during SONA said government will pursue key interventions, including a plan to expand the agriculture and agro-processing sector, by supporting key value chains and products, developing new markets and reducing our reliance on agricultural imports.

6. This can only happen if we work together and you embrace this opportunity. Our President has said that to ensure that our efforts are directed, and within the priorities of this administration, we agree on five fundamental goals for the next decade. Three of the five goals, aimed at tackling poverty, inequality and unemployment, the pillars of the National Development Plan, can be done or supported by the agricultural sector directly:
   - No person in South Africa will go hungry.
   - The economy will grow at a much faster rate than the population.
   – Two million more young people will be in employment.

7. Agriculture plays a vital role in economic development of developing countries. The role of agriculture in economic development is crucial because a majority of the population of developing countries make their living from agriculture. Its role in the economic development of less developed countries remains vital.

8. Increase in agricultural production and the rise in the per-capita income of rural communities together with industrialization and urbanization can lead to increased demand in industrial production.

9. Industrial and agricultural developments are not mutual exclusive but are mutually dependent and support each other with respect to both inputs and outputs.

10. The economic development of agriculture has been witnessed through creating demand for goods produced in non-agricultural sectors, purchasing power of the rural communities by selling the marketable surplus, earning valuable foreign exchange through export products, providing employment to the majority of unskilled and semi-skilled.

11. Agricultural sector is the backbone of any economy which provides basic ingredients to humanity and now raw material for industrialization.

12. It provides food supply of all countries whether developed or under-developed. Increased population has placed increased demand for food at a fast rate.

13. Although agriculture contributes a relatively small share (2.5%) to the total gross domestic product (GDP) in South Africa (SA), it is important in providing employment, food security and earning foreign exchange. When taking into account the whole agricultural value chain, the sector is estimated to contribute about 12% to the national GDP.

14. There are political legacies that still remain, some more difficult than others but as you are aware, government is dealing with this as a matter of priority.

15. What you may not hear, but behind the scenes there is a lot of work being done to finalise our key issues relating to land, water and agricultural development and transformation.

16. While land, water and agricultural development issues are not unique to our country, our complication is our history. But our solutions to the challenge will be ours.

17. Water resources are important to economic development, as water is essential to the production of agricultural goods and services. Globally, the major use of water (70%) is in the agricultural sector.

18. However, this sector consumes the largest amount of water. Water is essential for the production of agricultural goods and services, which generate income and create national wealth

19. Economic growth leads to high water demand all sectors—agricultural, industrial, and domestic. The percentage share of use is different in different countries, depending on their economic development.

20. The process of food production requires large amounts of water, especially animal farming. For example, to produce 1 kg of daily food for a person, 2–5 cubic m (2,000–5,000 L) of water are required; to produce 1 kg of beef requires 15,500 L of water—three times the water used for daily food. The demand for food has been steadily rising and has increased by 64 percent for meat and 31 percent for cereals, while fresh water resources are restricted.

21. This situation takes place in low income countries, where people depend on local agriculture for food. In addition, the lack of infrastructure, including poor management of the water supply system, leads to food shortages, and finally food instability due to insufficient water supply.

22. The way we operate our national water infrastructure already takes account of the big, year-to-year variabilities in climate and the slower process of climate change.

23. Every year, we look at how much water we have, how much is going to be used, and our hydrologists calculate whether we need to introduce restrictions or not.

24. We also try to help other water managers to do the same thing. Unfortunately, they don't always listen. Often small towns keep pumping water despite the fact that they are warned that, once dam levels fall to a particular point – and we tell them what it is – they will get into trouble. Then, when the dam is dry they run to us and say there is a crisis! It is a crisis that they made! Even Cape Town, before its big crisis, was warned that they needed new infrastructure. They said no, they were saving water, using it more efficiently. Then the drought came and they were in crisis.

25. So we must always plan for drought. If we do that properly, we are also planning for climate change. And this is one of the reasons why we cannot just give out water licenses for more water than we can be sure we can provide.

26. While 12% of South Africa's land can be used for crop production, only 22% of this is high-potential arable land. The greatest limitation is the availability of water, with uneven and unreliable rainfall. Around 1.3-million hectares are under irrigation, and around 50% of South Africa's water is used for agriculture

27. Global agriculture is facing unprecedented challenges. It's estimated that the world's population will reach 9,1 billion by 2050 with an ever expanding middle class. Current food production levels will have to be increased by 70% to meet future nutrition requirements.

28. At the same time, the challenges posed by climate change, water, nutrients and energy are converging. About 12 million hectares of land becomes degraded each year. Droughts and floods are becoming more frequent and larger. For a host of reasons Africa is at the eye of this storm. Some reasons include the fact that southern Africa has already lost 25% of its soil fertility. And some countries on the continent have some of the highest population growth rates globally.

29. All these issues must be tackled. And good water management is among the most crucial factors if Africa is to navigate an uncertain future. Water is essential for agriculture. African countries must, as a matter of urgency, develop coherent and strategic policies around water, land and agriculture.

Water in agriculture, rural and overall economic development - Water Allocation Reform

30. South Africa is facing a water crisis caused by insufficient water infrastructure maintenance and investment, recurrent droughts driven by climatic variation, inequities in access to water and sanitation, deteriorating water quality, and a lack of skilled water engineers. This crisis is already having significant impacts on economic growth and on the well-being of everyone in South

31. Water is a fundamental enabler in growing the South African economy whereby, 75% of GDP contributions are dependent on the national ability to manage our water resources and water services (water supply and sanitation) infrastructure.

32. The Department's National Water and Sanitation Master Plan acknowledges that "the water sector has, over the past 20 years, failed to deliver on its mandate for water allocation reform, or the reallocation of water to black water users. This, along with land reform, remains a major challenge facing the country, and one that must be addressed. It is proposed that a joint land, water and agrarian reform programme, to be led by the Department of Rural Development and Land Reform be established to ensure that the reallocation of both land and water are aligned and take place within a framework of agrarian reform and effective rural development."

33. We know that there is limited water in South Africa. And priority will always be given to water first for human use and then for economic purposes (mines, industry and power stations as well as for the cities) because that economic activity funds our public services, including support to agriculture. But the needs of rural transformation remain high on our list of priorities.

34. Given the increasing water demands to meet the needs of a rapidly growing and urbanising population, changing lifestyles, and economic growth, which is exacerbated by climate change which is driving the country towards a warmer and drier future, with predicted longer and more extreme droughts, and more intense floods, means that there will be less water available to meet water needs.

35. It is widely recognised (accepted) that there needs to be greater support for an increased focus on irrigated agriculture and assisting smallholders with market access. In the light of policy debates in the water sector, it should be emphasised that, while irrigation water is a scarce resource that must be fairly shared, it is vital that 'water productivity' ('crop per drop' and 'jobs per drop') is maintained and improved as agriculture is expanded and transformed.

36. While there is also a need for us to consider and deal with redistribution which are driven by equity and access considerations, we need to mindful of and manage any risks which may (could) undermine both agricultural employment and production. We must move with greater speed with transformation in the agriculture sector as well as land reform so that we do not perpetuate existing inequalities.

37. The Department of Water and Sanitation has to speedily deal with the long outstanding tasks of regularising and reviewing water use in order to promote better decisions and more equitable allocation of water as a scarce resource so that we do not perpetuate existing inequalities.

38. Water Allocation Reform was put in place to address issues of transforming access to water for economic purposes, particularly agriculture which is the largest water user in SA (62%) and globally, where the average for developing economies is around 70%. This process in support of agriculture and together with land reform will be a priority for the 6th Administration of our Government.

39. Food security is a national crisis: The South African National Health and Nutrition Examination Survey found that, in urban areas, 28% of households were at risk of hunger while 26% were already experiencing hunger. In rural communities these statistics hit 32% and 36% respectively. Food security is however more than just the arrival of a meal on the table; it spans a variety of factors that include malnutrition, obesity, hunger seasons and low dietary diversity. South Africa has become a net importer and not exporter of food.

Through improved agricultural production coupled with more efficient water use we should be able to turn the tide.

40. Agriculture is the largest water use at 61% of total water use, followed by municipal use at 27% (including industrial and commercial users provided from municipal systems), with power generation, mining and bulk industrial use, livestock and conservation and afforestation jointly making up the remaining 12%. However, the level of assurance at which agricultural water is supplied is lower than that of the other sectors (90%) compared with water for power generation is seen as strategically important and is provided with the highest assurance of supply (99.5 % which translates to 1: 200-year risk of failure).

41. Agricultural consumption is largely unmetered, and there are concerns about unauthorised abstraction and water wastage in the sector. In addition, agricultural users pay a much lower tariff than other users of untreated water and the relatively cheap water has not incentivised the adoption of water efficient irrigation practices. However, the agricultural sector is important in terms of jobs and contribution to GDP.

42. There is significant opportunity to reduce water requirements in the agricultural and municipal sectors, which are largest and second largest water uses in South Africa respectively. Any percentage reduction in water use in these sectors will therefore have a significant effect on total water requirements and “stretch” our available water and improve water security.

43. The DWS has, through the Strategic Water Partnership Network (SWPN), implemented the Water Administration System (WAS) Release Module at several irrigation schemes. With the WAS, it is possible to release the correct amount of water from a source according to demand, thereby reducing wastage. This system should be implemented across the country.

44. We urgently need to deal with impediments and unintended consequences in the current water legislation and to facilitate the water legislative review process.

45. It is recognised that there have been a number of challenges arising from two pieces of legislation that were not sufficiently integrated in approach, which will be dealt with in the revision of the legislation. Firstly, that we still have a significant number of people (mainly the poor and previously disadvantaged) who remain with limited access to water, and secondly, the unfortunate consequence arising from the delay in the implementation of the various mechanisms contained in the NWA to achieve reform of the water sector and that certain entitlements such as ELUs (existing lawful water use) still remain in force. As a result, the ELU may have lost its shape as an instrument which was only intended to operate as a transitional mechanism in the NWA

46. The four Policy Positions which directly impact on "Land reform, water rights & Economic Transformation" and which will be dealt with as we review the legislation are:

a. "use-it of lose-it" principle with regard to water use;

b. Water trading between authorized water users;

c. Prioritising social and economic equity in the re-allocation of water;

d. Multiple water use approach in planning infrastructure;

Use it or lose it Principle

47. Twenty one years after the promulgation of the National Water Act (1998), a large number of water use allocations are still authorised under an Existing Lawful Use (ELU). The implication of this is that water which is not being productively and beneficially used is held by a minority group in the country. There is a need to apply the use-it or lose-it principle to free allocable water before compulsory licensing is instituted in an area

48. An option to follow in the case of any authorised water use, including Existing Lawful Use (ELU), which is not utilised for a period to be specified by the Minister, should therefore be reallocated to the public trust managed by the Minister as custodian of the nation's water resources. The water could then be re-allocated to address social and economic equity. As a parallel exercise a methodology would have to be developed for ELU entitlements to be converted to licences.

Water trading between Authorized Water Users

49. The current policy and legislation provisions on transfer of authorised water use do not adequately facilitate the achieving of one of the fundamental principles of the Act, namely equity in allocation. Water may currently be transferred between water users, often at a significant price.

50. This trading of allocated water also affects the price of water. Furthermore the current policy and legislative provisions on trading of authorised water use inhibit the achievement of equity in allocation of water;

51. The proposal in terms of the new legislation: there will be no form of temporary or permanent trading between authorised water users. It will be obligatory for any holder of an entitlement to use water which is no longer utilised, to surrender such use to the public trust (the State). This position would of course further strengthen the "use-it or lose-it" principle.

Social and Economic Equity in the Reallocation of Water

52. Currently, Section 27 of the Act (NWA) requires equity and redress to be deliberated as one of a number of considerations in a request for water authorisation. An application is therefore not required to meet all of these considerations and each of the considerations have equal eminence or weight in the decision making process.

53. Going forward in terms of legislative amendments, the Minister should be given greater discretion to determine priority considerations for reallocation of water, with priority given to water use authorisation applications that meet the equity requirement, as provided in the regulatory instruments.

Multiple Water Use Approach In Planning Infrastructure

54. Much of the existing Water Resources Infrastructure was planned for specific sector's needs, to the exclusion of other water users. Communities and rural households have been excluded in the planning of some of this raw water infrastructure, resulting in raw water infrastructure and distribution networks by-passing these communities. In future, the planning of bulk water systems, all water users (in particular, communities affected by the infrastructure development) in an area will have to be considered.

55. A more integrated planning approach will be adopted in the planning of the entire water value chain, to address all user needs. A multiple water use approach will be implemented, which incorporates all water uses in an area including water supply, must be adopted in planning of bulk water infrastructure. This approach will also have equity and transformation as a priority.

56. This approach will deal with short and long term benefits including health, access to food, savings in time and cost, higher productivity and income (all of which contribute to poverty reduction).

Investing in Water Use Efficiency

57. The initiatives include investing in irrigation infrastructure, the smart use of technology in water management such as tools to predict and manage the flow of water, as well as mobile apps for farmers.

58. Irrigated agriculture is much more productive than rain-fed agriculture. That's why both land and water management must be considered within the question of achieving sustainable and productive agriculture.

4th Industrial Revolution and Climate Change

59. Climate change and water scarcity due to drought, declining rainfall and/or an over demand for water, is the key driver for the uptake of agricultural technology (agtech) in SA.

60. The face of agriculture is changing to a high skilled sector even though we still know it has low skills. The ANC-led government will explore the adoption of an employment policy, particularly in low skills areas. For South Africans to take full advantage of the fourth industrial revolution, focus will be on skilling and reskilling, especially with regard to ICT.

61. Related to this is the process of reducing the cost of data, which was viewed as urgent and critical.

62. There are emerging investment opportunities in: remote sensing technologies for precision agriculture applications (driven specifically to improve water efficiency and climate adaption); undercover farming (UF), which includes low-tech infrastructure such as shade netting and higher-tech controlled environment agriculture systems; and well-established investment opportunities in renewable energy (RE) and conservation agriculture. I put the challenge to you as to how you can also embrace these opportunities in your farming operations and agricultural development support initiatives. Why can't we be up there among the best in the world with our farming and technologies?

63. Technology is also playing an increasingly important role in farming, irrigation and water management. Modelling tools such as hydrological and water management models have emerged as an essential component of water management

64. Other technological improvements include the development of smart plants that are more drought tolerant thanks to genetic modification and genome editing. Some plants can also be engineered to use more efficient photosynthetic pathways that fully use the sun's available energy. This development holds promise for the hot climates of Africa.

65. Irrigation management is now using remote sensing data. Much of these data are freely available and cover the entire planet. For instance, remote sensing is used to pinpoint areas of wet and dry zones in cultivated fields. This allows for variable irrigation management and remote sensing estimates of crop water requirements. Australia's IrriSAT, which uses the Google Earth Engine, is one example of this approach. A South African technology is using remote sensing to help farmers in the Western Cape save water

66. Mobile apps are currently being piloted in Rwanda to help farmers. These will provide information on weather, rainfall and soil humidity to allow better farm management and productivity, as well as information on markets.

67. These are positive, but small, steps. It's clear that the African continent has a lot of catching up to do if it's to tackle its water management issues.

CLIMATE CHANGE AND SECURITY

68. Climate change is already considered a threat multiplier, exacerbating existing problems, including conflicts. Drought, desertification and scarcity of resources have led to heightened conflicts between crop framers and cattle herders, and weak governance has led to social breakdown, says Ibrahim Thiaw, special Adviser to UN Secretary-General for Sahel.

69. Climate change has serious implications for international security. By redrawing the maps of water availability, food security, disease prevalence and coastal boundaries could lead to increase forced migration, raise tensions and trigger new conflicts. The security threat posed by climate change has caught the world's political imagination and in the last UNGA driven by children who are calling us into action, this has shifted our conversations in a profound ways

70. Its impact can be magnified or moderated by underlying conditions of governance, poverty and resource management as well as the nature of climate impacts at local levels. Adaptation policies and measures are required to avert the crisis.

Impact of Agricultural Sector on Water Quality

71. Improperly managed **agricultural** activities may impact surface **water** by contributing nutrients, pesticides, sediment, and bacteria, or by altering stream flow. Fertilizer and pesticide use, tillage, irrigation, and tile drainage can **affect water** quality and hydrology.

72. Water quality can be affected by poor planning of industrial sites, animal farms, and barnyards and feedlots. Until recently, the type of water source has been indicative of the potential risks of contamination. Poor water quality can affect the quality of food crops and lead to illness in those who consume them. For example, the water may contain germs that cause human disease.

73. Irrigating crops with contaminated water can then lead to contaminated food products which lead to illness when eaten. Groundwater, for example, has been considered one of the safest sources of water. However, depending on field location and field size, it may not be possible to use water from these sources for irrigation.

Conclusion

74. The Department will have to speed up the compulsory licensing of water. And we must learn the lessons of the land reform process.

75. The 1998 National Water Act was the first legislation to expropriate without compensation! But, in order to redistribute water fairly from the haves to the have nots, we had to show that it was a fair process – otherwise any efforts to proceed would just have been blocked in the Constitutional Court.

76. So we can't just take water from one farmer and give it to another. We need to go through a fair process. No one in this country has a 'right' to use water forever. But if they have gone through the correct legal processes, they are entitled to use it, for a limited time.

77. Equally, government has the right, on behalf of the people of South Africa, to review that entitlement on a regular basis. And, because there is only a limited amount of water available, it has the power to decide that water must be shared more equitably. And it will be.

78. The law simply requires us to do it in a way that protects jobs and encourages investment in more efficient water use and more productive farming.

79. We can and must build on these small developments. The path is clear. But we all need to work together and walk together to get to the destination we seek.

80. "Overcoming poverty is not a task of charity, it is an act of justice. Like Slavery and Apartheid, poverty is not natural. It is man-made and it can be overcome and eradicated by the actions of human beings. Sometimes it falls on a generation to be great. YOU can be that great generation. Let your greatness blossom" by HE President Nelson Mandela

81. God Bless Africa her sons and daughters

82. I thank you