



The FST Produced Many Key Facts

- Organic yields match conventional yields
- Organic outperforms conventional in years of drought
- Organic farming systems build rather than deplete soil organic matter, making it a more sustainable system
- Organic systems do not need toxic synthetic biocides
- Organic is better at capturing and storing rainwater
- Organic systems sequester the main greenhouse gas - CO₂
- Organic farming uses 45% less energy and is more efficient
- Conventional systems produce 40% more greenhouse gases
- Organic farming systems are more profitable than conventional

Throughout its 30 year history, the FST has contained three core farming systems, each of which features diverse management practices: a manure-based organic system, a legume-based organic system, and a synthetic input-based conventional system.

Slide 2



Public Hearings on Climate Change :
16 November 2011 10h15-10h45
Hans Klink

Member of OSSIC (Organic Sector Strategy Implementation Committee) a Public Private Partnership and future member of SAOSO (South African Organic Sector Organisation) a NPO with registration number: 082-926



SAOSO
SOUTH AFRICAN ORGANIC
SECTOR ORGANISATION

Thank you for the long hours spend on this paper.

Dear Chair, the team and all present, I hope my message is clear and your actions to be taken easy to substantiate.

Agro-Organics has been around since 2000 and is confronted with challenges farmers have every day converting to organics and staying organics.

An old saying goes something like this: “The theorist knows how it works – but it doesn’t. The practitioner does not know how it works – but it does.”

We are practitioners rather than theorists, but would love to share with scientists our experiences and insights.

The main drive for standing here is to convince you that the white paper is incomplete without a flagship programme for organic agriculture. A reference group of scientists creating the research platform.



Extract from the white paper

Objective 2:
Make a **fair contribution** to the global effort to stabilise greenhouse gas (GHG) concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe **that enables economic, social and environmental development to proceed in a sustainable manner.**

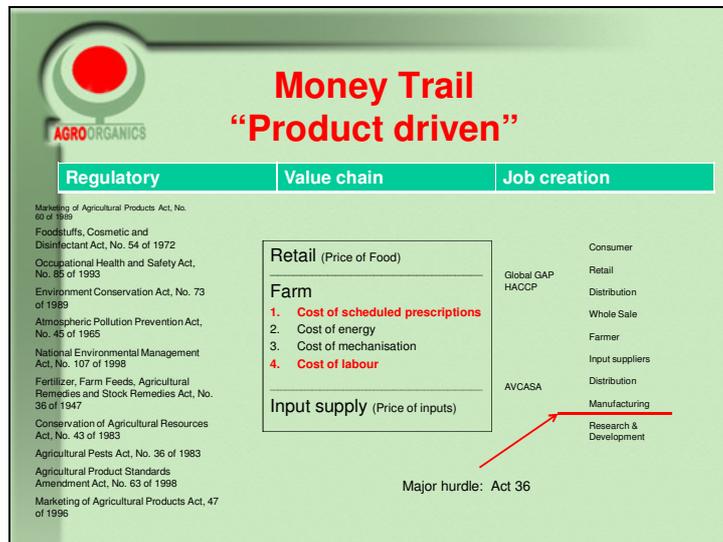
5.1 Overall approach
➤ All states in the Southern African sub-region face the challenges of rural and urban poverty, limited water or access to water resources, food insecurity, and other development challenges.
➤ We also need focused monitoring and evaluation systems to update our knowledge of how rapidly the change is occurring and the effectiveness of adaptation responses.

Using the results of this analysis, adaptation strategies will be integrated into sectorial plans, including:
➤ **The Strategic Plan for South African Agriculture.**

I assure you that the white paper stops short of giving mention to an organic agriculture flagship programme.

In its overall approach it wants to analyse the current status and then adapt the strategy plans, such as for SA Agriculture.

I want to show you, that by your intervention, establishing such an organic programme and giving it the critical mass, SA Agriculture should welcome this, building it to be the main stream agricultural management form.

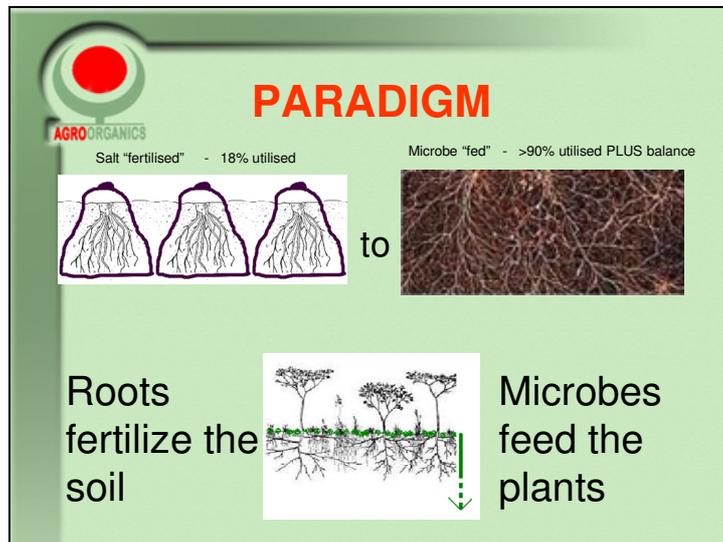


Reason why it is critical to establish an organic flagship programme can be shown in the money trail of the “green revolution”, which is matter of fact prescription management rather than managing agro-ecosystems.

Would ANY participant in the current input supply chain welcome organic agriculture? How many die-hards have given the post 1994 developments a chance of success, a future?

It is important for you to understand that the current agriculture , its legislative framework and its commercial structures have been influenced by the commodity trade’s interdependencies. There is a direct link between petro-chemicals and food prices.

Furthermore: The research has moved out of the public domain and is mainly funded by business in order to obtain intellectual property rights , which they can exploit. Even Universities are caught in this trap. It takes years - 5 or more - before old knowledge can be released and shared with all.



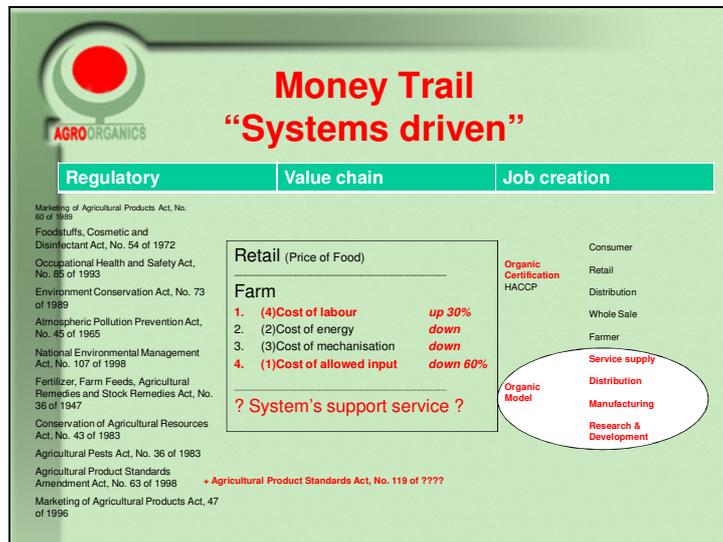
It takes the rain forests 18 years to produce what the best fertilized soil can't do in 100 years.

Salt fertilizers are based on the ion exchange theories and the thinking that microbes feeding the plant is minimised. With salt based fertilizers only 18% of the potential is achieved. No wonder we need to protect such plants with high volumes of pesticides and fungicides.

The paradigm:

Roots fertilize the soil, microbes feed the plant.

Yes and I can take you right now to a farm, an hours drive from parliament, that harvests 350% more than average, less than one third of crop support inputs and in the heat of summer needs 25% of water that the neighboring farms use.



Organic farming is based on agro-ecological principles. A systems driven agriculture.

Root systems, composting layer system, crop damaging insects and predator systems to name the main drivers.

It has different needs to be managed. It has different needs regarding its support. Can you see where the change needs to be?

The implication for SA agriculture is to be that labor would gain whilst inputs such as fertilizers and crop protection remedies would go down.

Food prices could be linked to labor cost rather than to the petro-chemical commodities price indexes.



Extract from the white paper

- 5.5 Biodiversity and ecosystems
- In response to these challenges, South Africa will integrate climate change into the management of biodiversity and ecosystem services as follows:
- 5.5.1 **Strengthen biodiversity management and research institutions so that they can monitor, assess and respond effectively** to existing anthropogenic pressures together with the additional pressures that climate change presents.
- 5.5.2 **Conserve, rehabilitate and restore natural systems**
- 5.5.3 **Prioritise impact assessments and adaptation planning** that takes into account the full range of possible climate outcomes, in conjunction with plausible scenarios of other stresses.
- 5.5.4 Prioritise climate change research into marine and terrestrial biodiversity and ecosystem services, **and institute effective monitoring to enhance the understanding and forecasting of critical future threats.** Monitoring efforts at national and sub-national scale, supported by experimental studies that quantify future risks to biodiversity and that improve projections of impacts, will help to design and refine adaptation responses.

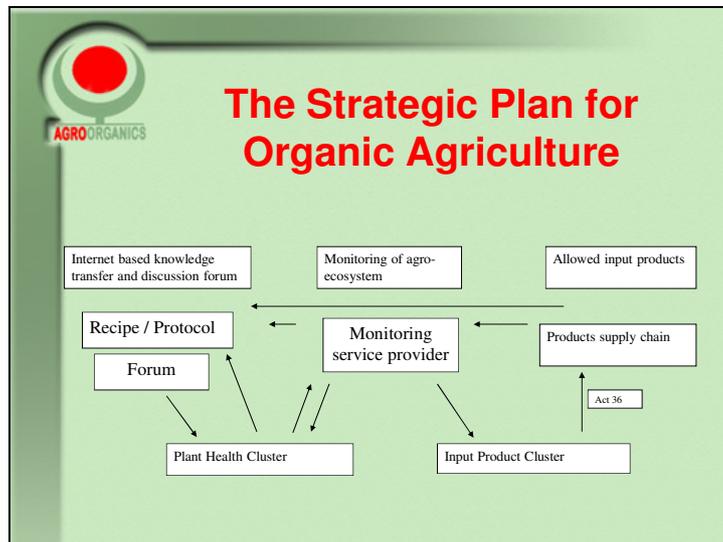
Again the white paper says actually: we suggest that organic agriculture based on agro-ecology principles is the future.

Organic agriculture by definition:

Organic agriculture is a production system that sustains the health of soils, ecosystems and people.

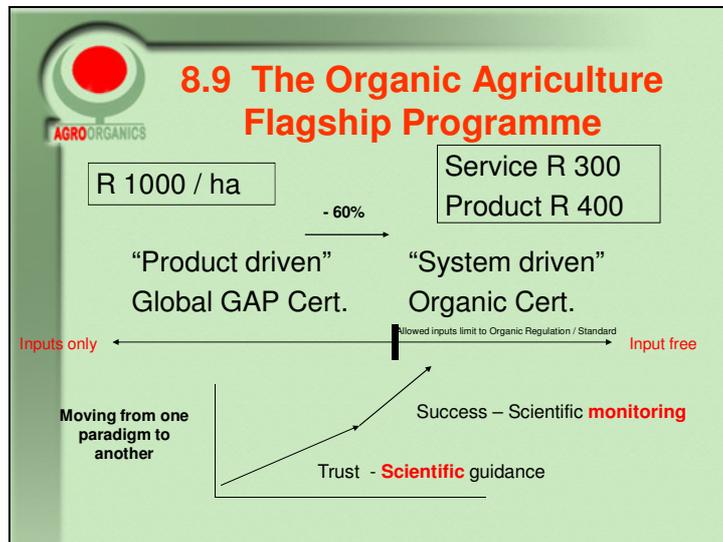
It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects.

Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.



The model for organic agriculture could be visualised as follows

- Recipe(s) / Protocol(s) – crop specific compiled by one person using info by many. That person becomes centre of discussion forum. Sends relevant questions to relevant researchers and answers back on forum. - Tested 700 members.
- 2. Monitoring SCIENTIFIC and captured in D-base. Service provider writes “management report” on which tasks can be structured maintaining the system. Data can be assessed by researchers.
- Input product CHOOSEN within “Organic Principles”, when applied is monitored and thus gives opportunity for fine-tuning.



Taking out INPUT PRODUCTS will free production from the pliers effect of prescription management, aligning production cost to labour with netto effect: Food inflation is now linked to labor cost inflation.

97% of INPUT PRODUCT industry is outside AFRICA.

The economic effect of change will not do major harm to the INPUT PRODUCT industry.

WHAT THE MODEL CAN DO: Allowing any person to acquaint him/herself with a recipe/protocol and start production! All that is needed: soil, sunlight and water. Obviously access to the internet, some seeds and there you go.



8. Near-term priority flagship programmes

8.9 The Organic Agriculture Flagship Programme

The Potential
The widespread adoption of Rodale Institute's organic practices globally has the potential to sequester over 40 Gt of CO₂, which is more than 90% of the world's current greenhouse gas emissions.

- Grassland 3,488,000,000 ha
- Arable Crops 1,405,000,000 ha
- Permanent Crops 130,000,000 ha
- Total 5,023,000,000 ha (Source FAO)

- Organic @ 8.2 tonnes per hectare 41 Gt CO₂
- Annual GHG emissions in 2009 49 Gt CO₂e (Source UNFCCC)

Organic agriculture has many facets and here is another:

Rodale is an institute where “organic” and the “green revolution” is now compared for 30 years.

Yes the organic agriculture can feed the world and yes it is absolutely relevant to the climate change response challenge!

One reason: Organic agriculture could counteract 90% of carbon dioxide emissions.

Surely you need to add the organic flagship programme.



Together we can

- Scientific Cluster “Protocol”
- Scientific Cluster “Monitoring”
- Scientific Cluster “Input product”
- Adjust the hurdle height of Act 36 and other relevant legislation.

.... make **a fair contribution** to the global effort to stabilise greenhouse gas (GHG) concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe **that enables economic, social and environmental development to proceed in a sustainable manner.**

Chair, the white paper team

DAFF has been neglecting organic agriculture seriously, the FRIDGE study has been done, for three years now efforts have been sort of made to bring the organic sector together.

The few people having the insights have not the capacity to manage this mammoth task of changing a product driven agriculture to a systems driven one.

But together we can make that fair contribution, counteracting carbon emission, creating new jobs, contributing to food security and increased food safety.

An organic agriculture flagship programme fits surely into your vision of : together we can develop in a much more sustainable manner.

Thank you.