

Economic Empowerment in Agriculture

By Tony Stone

Just giving someone a piece of land and money doesn't turn them into an instant farmer. They need training and mentorship. If the government can turn the hatred they nurture against White farmers into positive collaboration, who better to mentor new farmers than old farmers. But, first, the government needs a realistic plan, and then it needs to work that plan. With the right attitude, this is a workable solution.

In Africa, Africans firmly believe that if you do not control (own) your own land, you will never really be free. However, we need to understand what freedom really is and, sadly, many don't do anything with their land.

Black Consciousness Movement leader Steve Biko argued that, "Freedom is the ability to define yourself with your possibilities held back, not by the power of other people over you, but only by your existent relationship with God and with your natural surroundings."

Charles de Montesquieu defined freedom as, "the right to do what the law permits."

Biko and de Montesquieu's definitions of freedom provide us with some important qualities or attributes that should be characteristic of a truly free society. A society of free people is a society of individuals who are empowered to take charge of their own destiny without being limited by the power of other people over them i.e. not reliant or dependent on politicians or any other external group of people but self-reliant, self-defined and self-driven, with the only limitation being their relationship to God (or some higher power if you like) and to their environment (which consists of nature and other people around them).

Secondly a society of free people is one which has a high regard for the rule of law and operates within its parameters. It is on these points that Africa and Africans are often found wanting and hence are not truly free. In the words of the German philosopher Hegel, "the history of the world is none other than the progress of the consciousness of freedom." It is only when we are consciously free, that we can actually develop and progress. Progress and development are linked to our consciousness of our freedom. If we are not aware of the fact that we are free, we will continue to pin our hopes on political messiahs and this kind of attitude will only leave us in bondage and at the back of the queue in the quest for progress and development. Freedom is directly linked to individual empowerment and is the only cure for the disease of over-reliance on the political function, politics and politicians.

Freedom also implies personal responsibility and an ability to choose wisely. It is not license to irresponsibly do as we please."

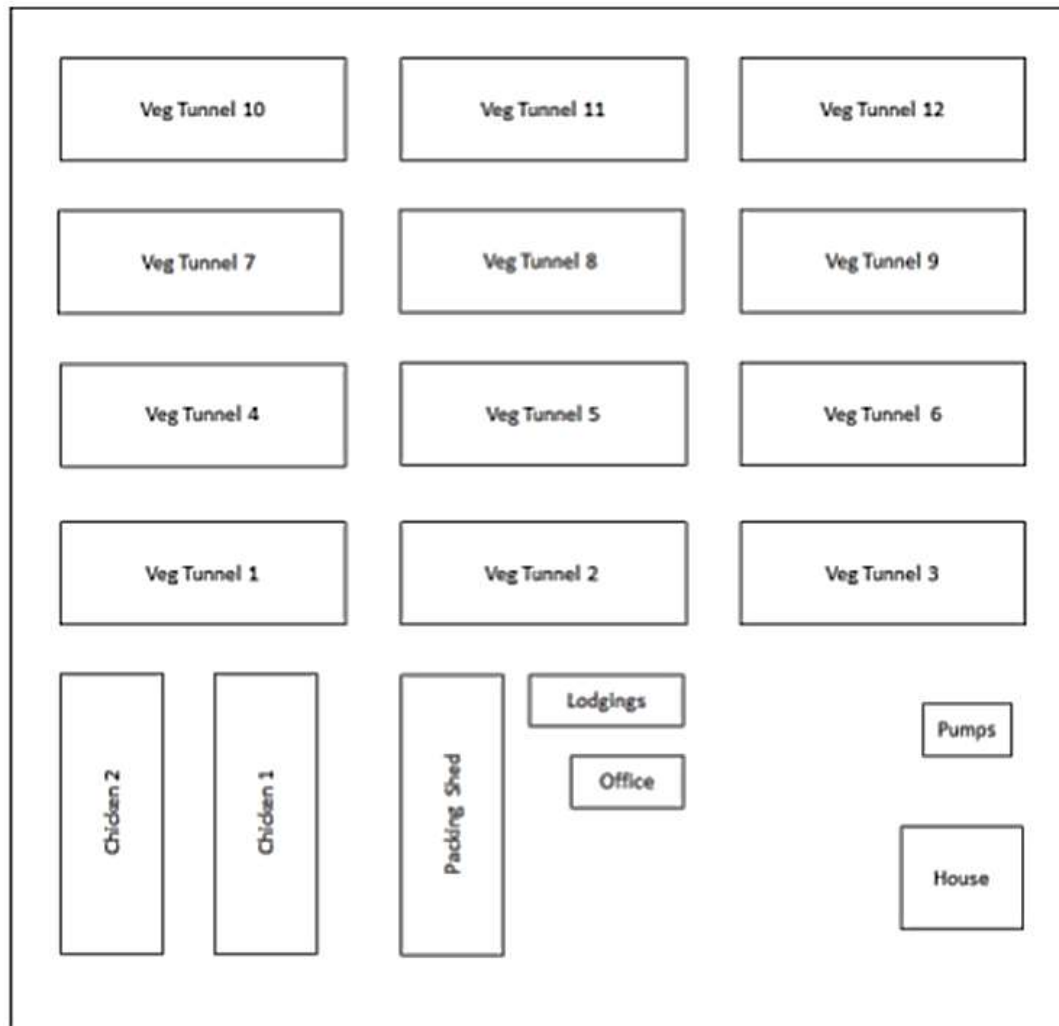
It is within this context and these definitions of freedom that this plan proposes to ensure rights of individuals and family units to land access, especially within traditional communities such as Communal Property Associations (CPA). In South Africa, under the Communal Property Associations Act of 1996, communities form juristic persons, to be known as CPAs, in order to acquire, hold and manage property on a basis agreed to by the members of a community in terms of a written constitution, and to provide for all matters, under tribal custom, connected to or involving the CPA in a non-discriminatory, equitable and democratic manner and that the CPA is accountable to its members.

The problem with the CPAs, in South Africa, is that the land is allocated to a CPA with tribal chief and his/her family as the members of the CPA and not community members, people and their families. This is nothing more than the entrenchment of the old tribal system, with its customary law. It's not freedom under democracy. Tribal leaders are able to exert immense control over the community members, especially the socially weak and poorly educated (which is a common problem in South Africa). With greed so rife in the country, the CPA system is nothing more than a feudal system or "decentralized despotism", and is exactly what led to the 1789-1790 French revolution. It is not Black Economic Empowerment of the masses, but enriching a few.

With the potential of significant earnings from a one-hectare parcel of agricultural land, which we will refer to as a Family Unit of Land (FUL), we cannot afford to have the family unit economically disadvantaged in any way – because of the greed of the tribal leader. Otherwise, the economics of the entire agricultural scheme will be negatively affected. If the ANC is serious about poverty eradication and a "better life for all", the matter of the individual family unit having land access rights and tenure, within a CPA, must receive the attention. It needs a FUL carrying a minimum transferable commercial 99-year lease with a maximum 0.25% turnover lease fee per annum.

The agricultural proposal, in brief

The plan is to take one Black, Coloured, Indian or White family (a husband, wife and two children) and put them on a one-hectare piece of land (two-and-a-half-acres), a FUL, build an RDP house, separate lodgings for three people, farming tunnels (12 x 10.5m x 30m x 4.1m tunnels for vegetables and 2 x 8m x 30m x 4.1m chicken coops), shared borehole and wood/coal furnace (for winter crops), all equipped with long-life equipment. Train the head of the household in tunnel farming, who will train two workers over a two-to-three-year period, with a view to their becoming FUL farmers as well, and provide ongoing support through the government, a now transformed Agri SA and other institutions.



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Agricultural training

DICLA Training & Farming CC, a division of DICLA Farm & Seeds CC, recently opened a new training centre in the Gauteng area, just outside Mogale City. They can accommodate 40 in-residence trainees, 20 on the tunnel farming course and 20 on the broiler course with two persons per room sharing. This includes the course, bed & breakfast, lunch, a 2-course dinner, fruits and refreshments. Each course is four days, Tuesday to Friday every week, and costs R6726 + VAT.



Tunnel farming course

The training consists of theoretical and practical training which will enable students to perform basic routine operations in a tunnel farming environment.

Duration: 4 Days

Leader: DICLA Training Centre

Cost: Course and accommodation is R7 533.00 + VAT per person for a 4 day course (Tuesday to Friday) every week

Course programme:

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| <ol style="list-style-type: none"> 1. Getting started (planning) <ol style="list-style-type: none"> 1.1 Water Quality & quantity requirements for tunnel farming 1.2 Management of tunnels 1.3 Marketing of products 2. Tunnel selection <ol style="list-style-type: none"> 2.1 Tunnels sizes 10.5 x 30 x 4.1 m standard 2.2 Roll up tunnels 10.5 x 30 x 4.1m 2.3 Starter (nursery) tunnels small scale 6.5 x 12 x 3.8m 3. Tunnel maintenance <ol style="list-style-type: none"> 3.1 Preparing inside tunnel <ol style="list-style-type: none"> 3.1.1 Laying floor plastic 3.1.2 Packing planting bags 3.1.3 Spacing dripper pipe 3.1.4 Testing dripper system 4. Setting of water schedules 5. Preparing seedlings <ol style="list-style-type: none"> 5.1 seedling nursery 6. Heating systems <ol style="list-style-type: none"> 6.1 Coal heaters <ol style="list-style-type: none"> 6.1.1 Air to air circulation 6.1.2 Hot water circulation 6.1.3 Paraffin heating 6.1.4 Diesel heating 7. Fertiliser programmes <ol style="list-style-type: none"> 7.1 Soluble fertiliser 7.2 Geranial fertiliser 7.3 Water analysing 7.4 Soil analysing 7.5 Water pH affects availability of plant nutrients | <ol style="list-style-type: none"> 7.11 Tomato disorders 7.6 Soil pH affects availability of plant nutrients 7.7 Growing of tomato with hydroponics and in soil 7.8 Growing of cucumbers with hydroponics and in soil 7.9 Growing of Sweet pepper with hydroponics and in soil 7.10 Seed selection for clients (winter summer productions) <ol style="list-style-type: none"> 7.11.1 Fungicides 7.11.2 Pesticides 7.11.3 Deficiencies 7.12 Cucumber disorders <ol style="list-style-type: none"> 7.12.1 Fungicides 7.12.2 Pesticides 7.12.3 Deficiencies 7.13 Sweet Pepper disorders <ol style="list-style-type: none"> 7.13.1 Fungicides 7.13.2 Pesticides 7.13.3 Deficiencies 7.14 Plant protection <ol style="list-style-type: none"> 7.14.1 Tomato 7.14.2 Cucumber 7.14.3 Sweet Pepper 7.14.4 Open field crops 7.15 Plant nutrient deficiencies <ol style="list-style-type: none"> 7.15.1 Nutrient (element) 7.15.2 Function 7.15.3 Symptoms of deficiency 7.15.4 Crops & Pastures most susceptible 7.16 Foliar sprays |
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Broiler course

When completing this course, you will be able to maintain and run a poultry broiler business successfully.

Duration: 4 days

Leader: DICLA Training Centre, currently a BBBEE EME company

Cost: Course and accommodation is R7 533.00 + VAT per person for a 4-day course (Tuesday to Friday) every week

Course programme:

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| <ol style="list-style-type: none"> 1. Maintenance of Broiler Holdings <ol style="list-style-type: none"> 1.1 Construction of Broiler Holdings 1.2 Cleaning and Disinfecting of Broiler Holdings 2. Producing Poultry Broilers <ol style="list-style-type: none"> 2.1 Growing Periods 2.2 Care of Poultry Broilers | <ol style="list-style-type: none"> 2.3 Feeding of Poultry Broilers 2.4 Vaccination of Poultry Broilers 3. Marketing and Selling of Poultry Broilers <ol style="list-style-type: none"> 3.1 Basic Introduction to the Poultry Industry |
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The start-up cost per one hectare unit (as a loan, preferably at zero interest) will be R1 200 000.00, which should yield an income of between R1 100 000.00 and R1 300 000.00 per annum, and enable the farmer to pay back the loan over

a five-year period. Each one-hectare unit will provide two farm labourer jobs, over and above that of the farm owner and his wife who will assist with administration.

If we take a clustering approach, of 20 x FULs, economies of scale can be reached in terms of providing accounting and transport services (yet more jobs). Thus, for an investment of R24 million, at least 60 direct and two indirect, ongoing and sustainable jobs will be created. Food security will be greatly improved.

Theoretically, on a 200-hectare property, nine clusters of 20 FULs can be established. Government can assist by granting tax concessions for the first five years e.g. no company tax, only VAT. As to Communal Property Associations (CPA), a cluster can will pay an annual royalty of 0.25% per annum to the CPA. This, on projected income, will equate to R600 000 per annum per cluster (on 20 hectares). On 200 hectares, this equates to R5.4 million, which is a sizable amount of money, and so on. Each FUL should be able to net R240 000 per annum, if properly managed. Substantially better than a monthly grant.

Is the plan viable?

Absolutely! In the Israeli Arava Desert, where there is nothing but sand and rock, tunnel farms use drip irrigation and operate successfully, and have done so for years. The author spent 10 days on one of these farms in 2012, and travelled to others during his visit.

Saudi Arabia's agricultural development over the last three decades has been astonishing. Large areas of desert have been turned into agricultural fields – a major accomplishment in a country that receives an average of about four inches of rain a year, one of the lowest rates in the world. Today, Saudi Arabia exports wheat, dates, dairy products, eggs, fish, poultry, fruits, vegetables and flowers to markets around the world.

In California, the Imperial Valley, once a desert, is a major source of winter fruits and vegetables, cotton and grain, and it is a good example of what can be achieved.

If this, drip irrigation, can be done in deserts, it can be done anywhere in South Africa. Ekurhuleni has two agricultural holdings totalling 912 hectares, this could accommodate 45 FUL bundles of 20 or 896 FULs. Alternatively, a collaborative agreement could be struck with Sedibeng Municipality to use available land there.

Transportation

If one FUL plants and harvests twelve tunnels of cucumbers at 455 plants per tunnel, with each plant yielding an average of 12 cucumbers and with each cucumber weighing an average of 0.37 grams, then we yield 24,243 kg per FUL harvest. A bundle of 20 FULs will produce 484,848 tonnes. That's 16 trips at 30.5 tonnes per load. Tunnel farming has a crop cycle of three crops per annum giving 48 trips per annum. At an average road transport cost per cucumber, for a 150 km trip, is 0.198c or R16_322 per 30.5 tonne load or R261 146 per 16 loads or R783 438 for 48 trips. This gives a transporter R166 184 net after operating costs and before tax. With 190 trips still available it would be possible for one transporter, using a six-axle articulated truck carrying a payload of 30.5 tonnes, to cater for the needs of four to five FUL bundles depending on harvest cycles.

Critical success factors

Two factors are critical to the success of this plan, above all other factors. This initiative needs the support of the government in finding and allocating land. Central government support via the Department of Trade and Industry, Department of Small Business Development and SARS will be essential, especially from a funding point of view. Lastly, while this document is quite comprehensive much work still needs to be done to articulate the rollout of this strategy. As stated earlier, a champion will need to project manage the rollout. This person will need to be qualified, experienced and as honest as they come. A person of good moral standing, ethics and integrity.

Qualifying participants

- Must be South African born citizens
- FUL owners must have a completed a verifiable minimum Grade 9 general school education.
- FUL owners must complete the DICLA Tunnel Farming and Broiler Farming courses.

Please Note: *Costs and values as applicable at time of writing*