Partnership

for CACANA

Commercial AfriCAN Aquaponics




Commercial AfriCAN Aquaponics

Concept

August 2018

Yes YOU AfriCAN

AfriCAN solution to climate change

Aquaponic System Design and Management

Commercial Afri**CAN** Aquaponics system

Grows African loved Staple food of Taro yam,

High quality animal protein from Fish.

The answer to **Africa food security** to feed exploding population and

Supplement traditional subsistence unsustainable unproductive rain fed agriculture.

Presented by:
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Chairman of AAA
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Yes You AfriCAN

People in the industry **claim that small scale aquaponics can't be profitable**.

7 years research and we have proof that aquaponics can be profitable on a small scale if you have the right Business Model and Grower support program.

You CAN set up a system in your compound to generate money and food security every month,

Build a CACANA® System

After taking SDF AAA Skilling workshop at Budo. Funded by World Bank & Uganda Gov. under PSFU.

Amos set up Commercial AfriCAN Aquaponics (**CACANA**) system that grows Taro yam and juvenile catfish in tanks in his front yard

System grows 30,000 x10g catfish juveniles/Month @ Uxx350 = Ugx 10,500,000.

Esti. Set up cost Ugx15M

It is dangerous not to have a healthy aquaculture industry

The Fish Site

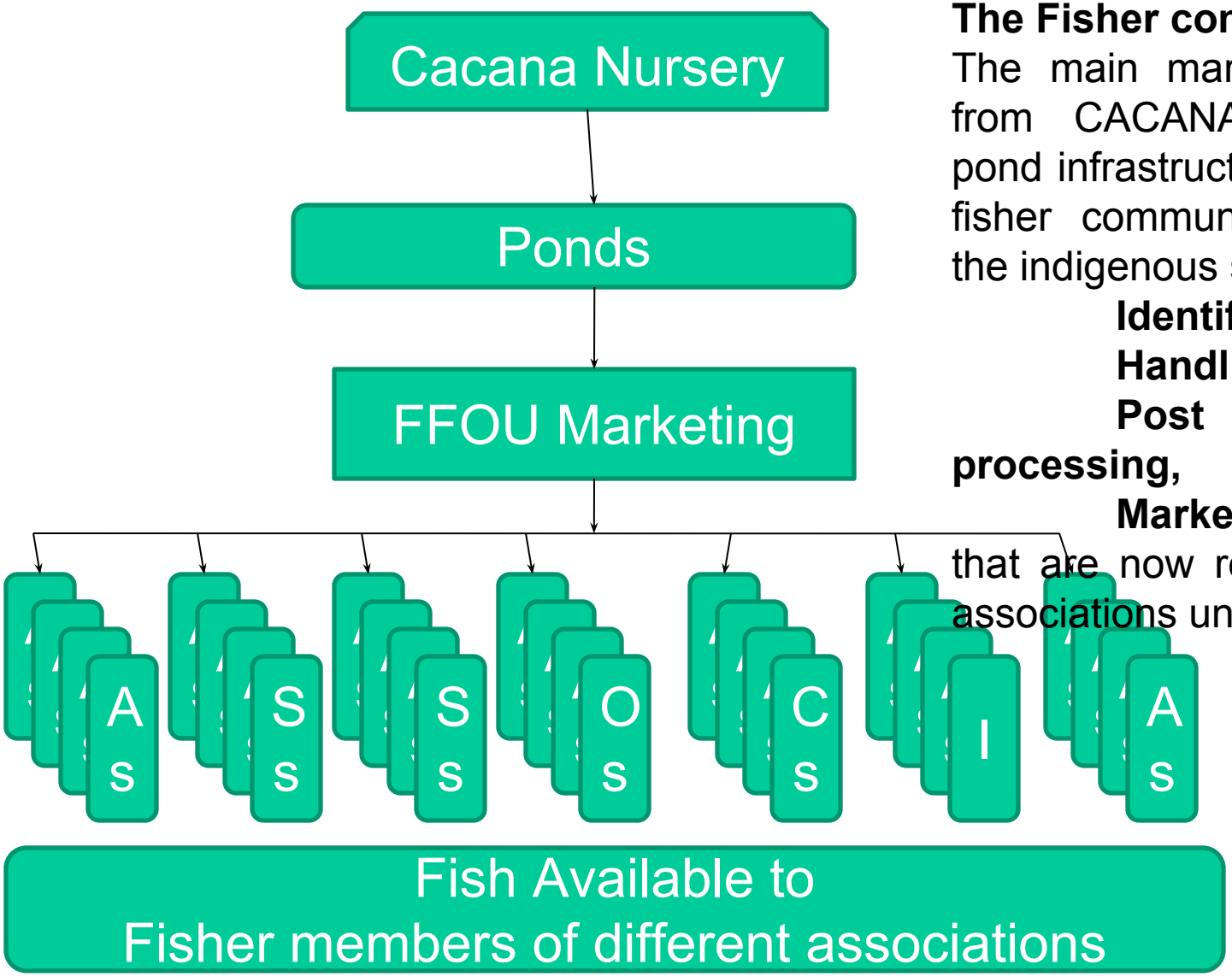
Efua Konyim Okai, is a Ghana-based economics - 3/Aug/2018

African experts are concerned that the flood of imports from China and other Asian countries poses a clear **danger to African food security, employment and its young but promising aquaculture industry**.

They note that increasing numbers of **African youth and women are being drawn into aquaculture, which could offer a viable solution to the continent's unemployment problem**. And put to use its vast natural resources.

Africa spends a substantial amount of foreign exchange, which it can hardly afford, to import fish which it is capable of producing itself. This would trigger an influx and Economic migration problem fuelled by frustration and desperation at home.

CACANA System and FFOU Market



The Fisher community

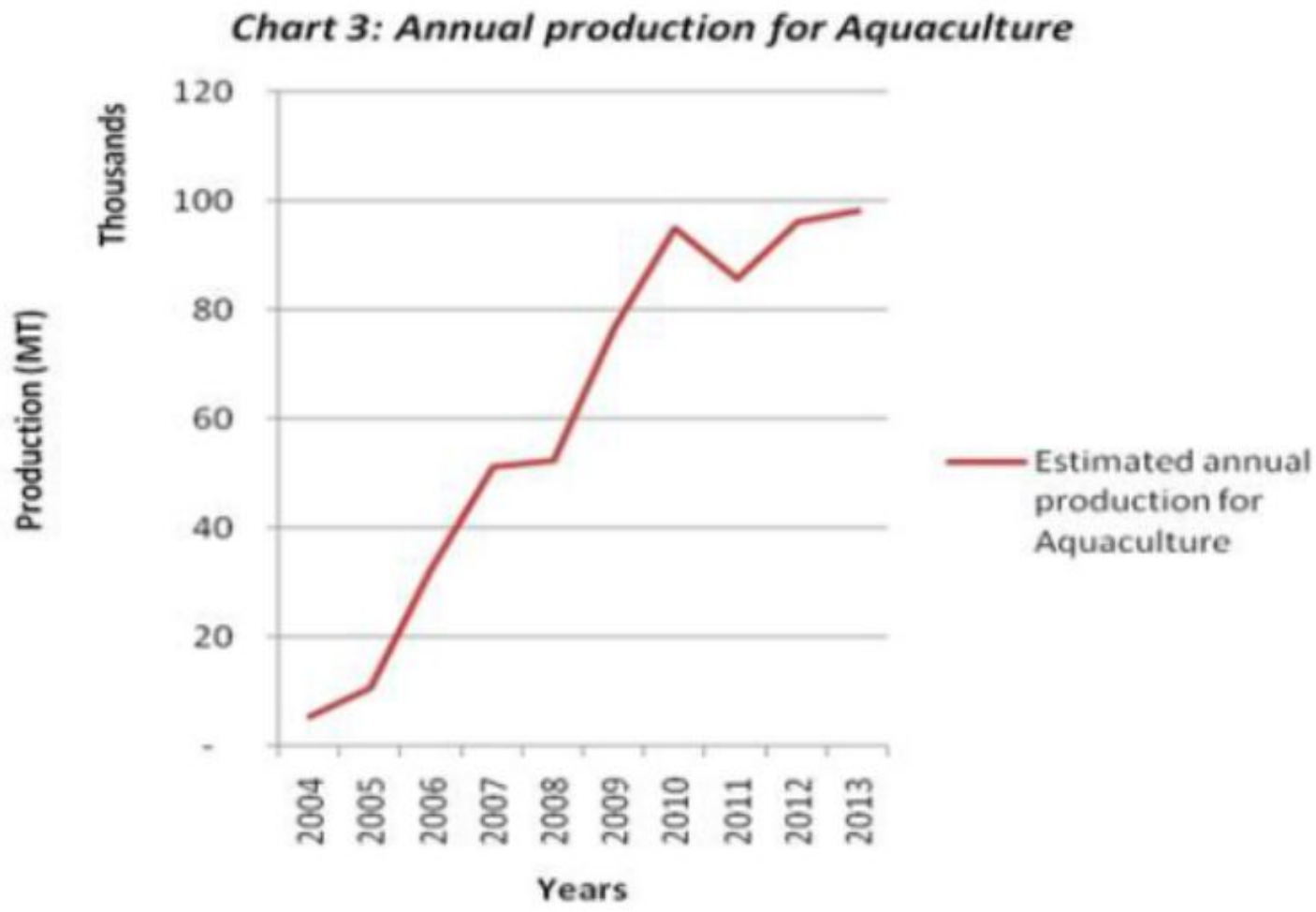
The main market of farmed fish from CACANA Nursery revived pond infrastructure is the displaced fisher community that possesses the indigenous skills in:-

Identifying,
Handling,
Post harvest processing,
Marketing,

that are now registered in various associations under FFOU

Maintain the fast growth

AQUACULTURE PRODUCTION



Aquaculture growth rate of 300% over the last 10 years.

Aquaculture is practiced in almost all districts.

Total of 25,169 ponds

13,900 farmers produce approx 90,000-100,000tons(2010)

However, many are small scale. The ponds' sizes average between 200 and 3000 square meters.

Report from *DFR-MAAIF - 2016*

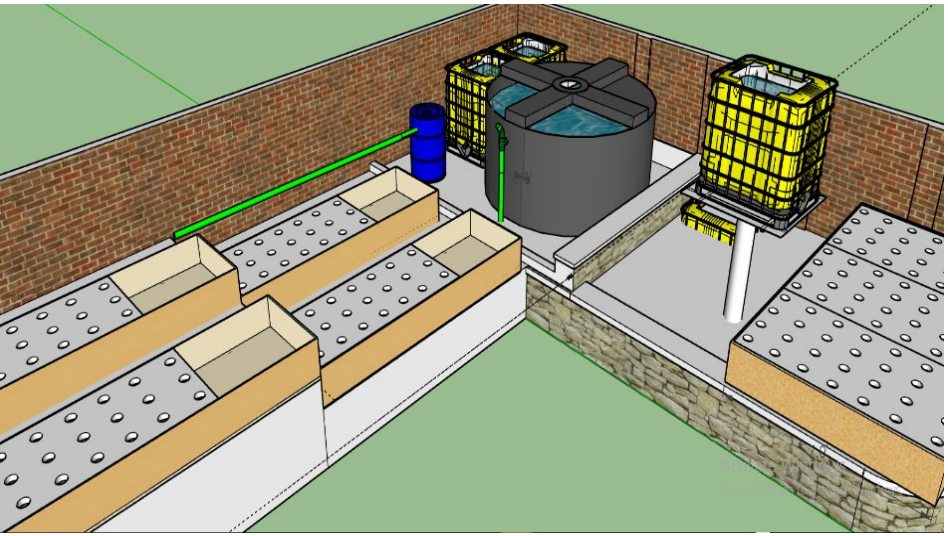
Key to fish farming prosperity

Problems due to lack of

1. Knowledge
2. Quality seed fish
3. Quality low price feeds
4. Quality Management
5. Collective Marketing

CACANA systems is the missing middle for the aquaculture industry. It will awaken the infrastructure of currently non performing installed pond, cage and tank fish farmers so as to make use of the countries huge natural resources, Revive installed processing facility, Encourage new ones and Take advantage of the growing local, regional and international market demand for fish.

Step 1: From 3D Design to Construction



We visit you and see where you want to install the system, in your compound.

1. We make a Computer 3D design of the proposed system,

2. Make a BOQ for the system and

3. Make an income and expense document for the system.

The resulting system with Taro yams doing so well in concrete troughs.

A solution to food security, Green job and well being

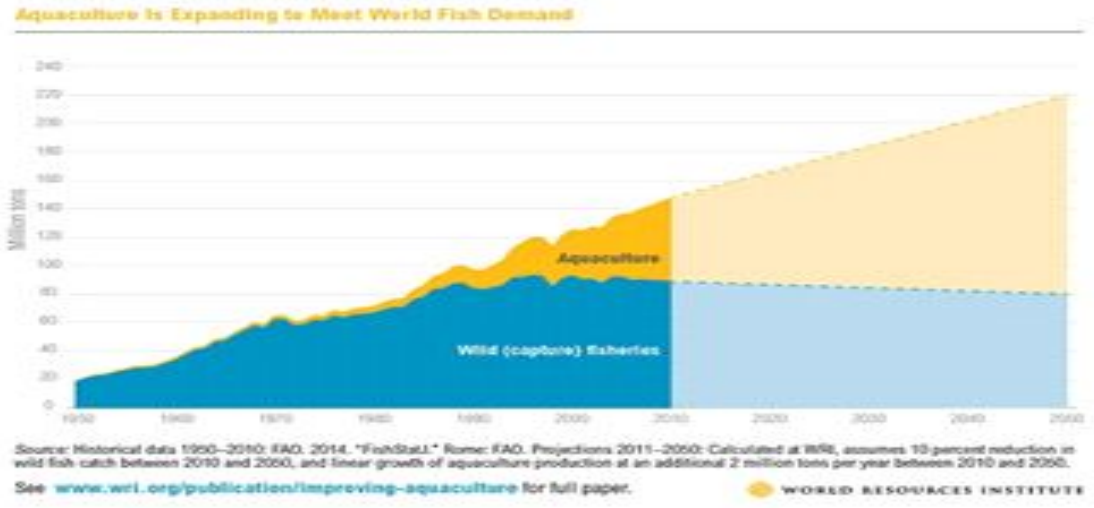
.

Amos's happy retirement plan.

Tools and Materials:

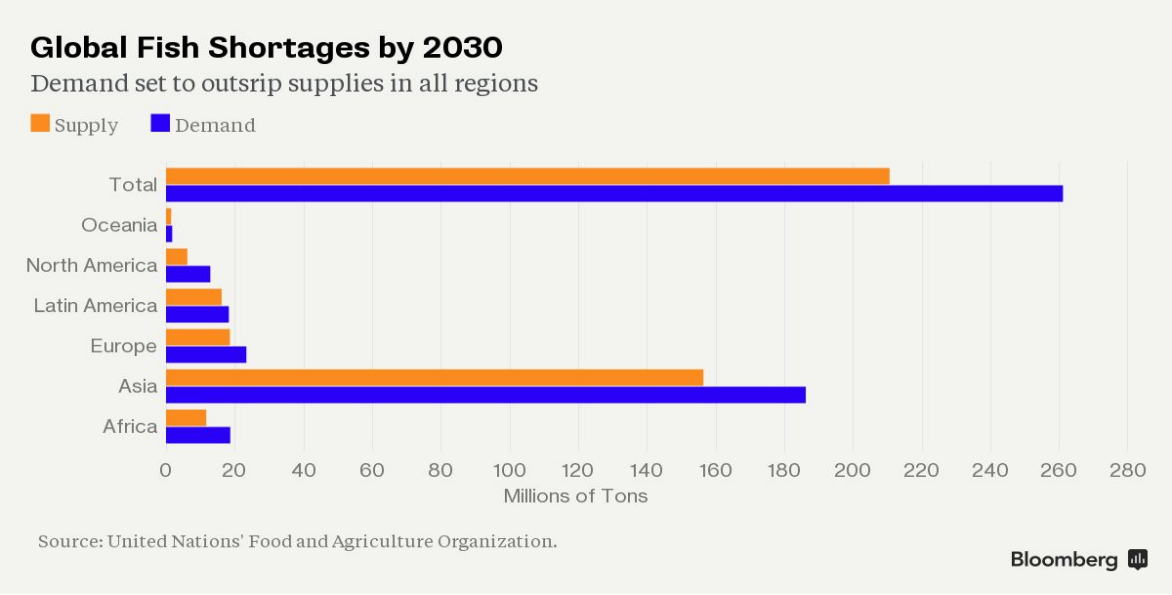
- Fish, Overhead and sump tanks Can be 1000 lts IBC, 6000 lts Crestank, etc can use concrete, timber, plastic or metal.
- Grow beds can be Concrete, Timber with liner, or plastic of dimensions to suit type and capacity of fish to be stocked/ available space.
- Solids filter to remove fish poop and un eaten fish feeds
- Submersible water pump/pipes and suitable plumbing components of taps, joints, bends, reducers, end caps, siphons etc
- Oxygen pump, air stones, junctions and air tubes
- Grow media according to design
- Needed tools
- ALL LOCALLY AVAILLABLE

Step 2: Global facts of farmed fish



We eat more Farmed fish than that got from the wild.

We need to graduate from hunting **(capture fisheries)** to farming **(Aquaponics)**..



Fish shortage is a growing global problem.

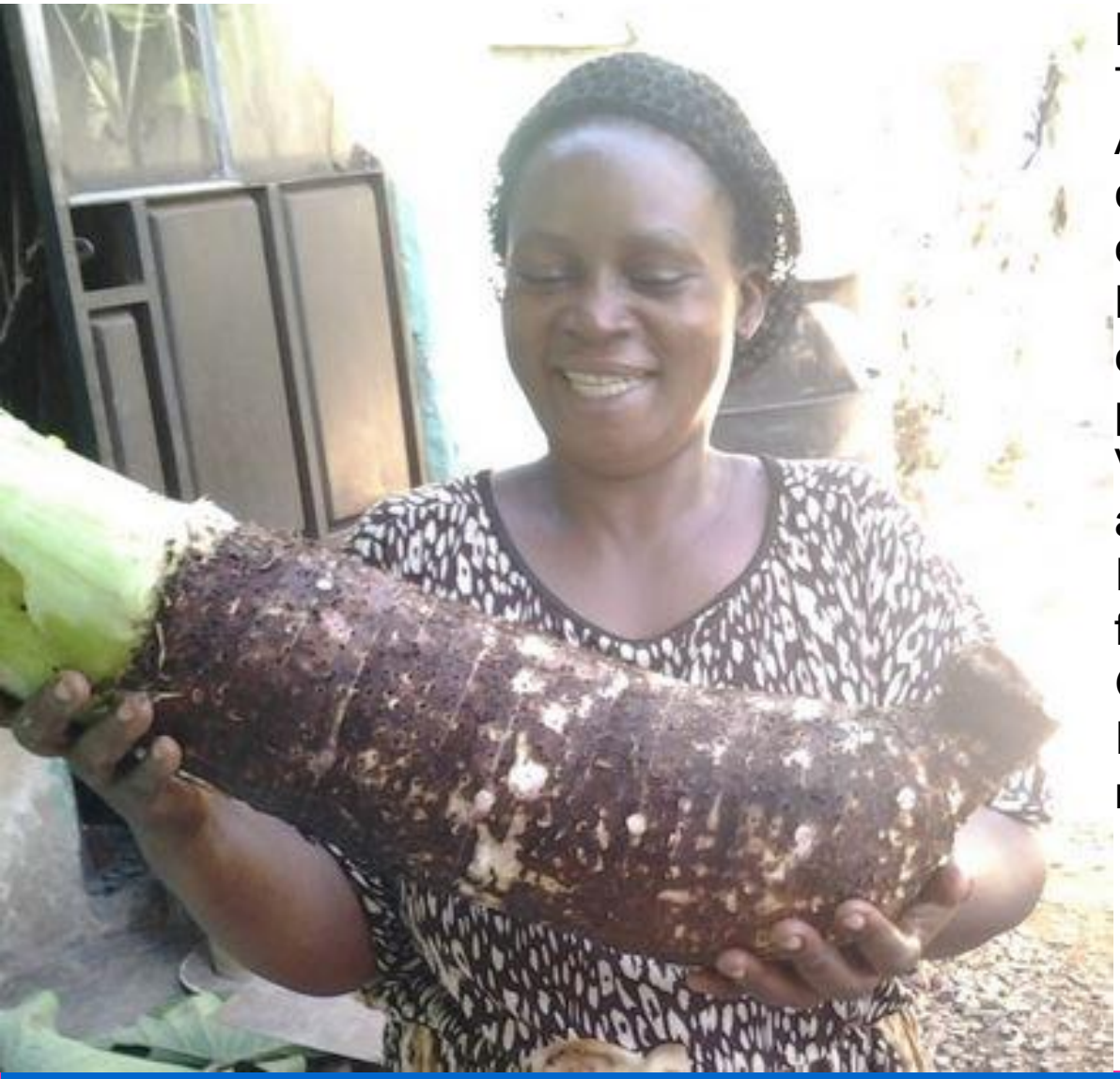
Step 3: Global facts of food

Nutrient dense organic food can be supplied by aquaponics systems sustainably.

Global population is 7bill.

1Bill going hungry every day especially in developing countries with high population growth like Uganda

Step 3a: Africans Staple food facts



Most loved African Staple food, Taro yam,

A supper food. Very nutritious calm, and the whole plant is edible, including the leaves.

More nutritious than rice, cassava, potatoes, Bananas posho etc.

Very easy to grow organically and looks great in aquapponics.

It is a heavy feeder and great filter

Grows to 5 Kgs in just 6 months.

In soil it grows to 1.5 kg in 8 months

Step 4: Is Africa The Next Emerging Market?

Take into account the following

1. Production capabilities that come as a result of having the world's fastest growing population,
2. Huge natural resources.
3. Educated trainable workforce
4. Government support/incentives
5. Several Investment opportunities
6. Several trading blocks

Step 4a: What you should know

The African Market

Africa and African agriculture are part of the solution to ensure food security to Africans as well as the wider world.

African agriculture is capable of not only adapting to climate change but also responding to challenges of productivity and sustainable development.

Africa's production potential is immense in fact 60% of the planets un exploited arable lands are in Africa.

The continent constitutes a possible field of application for development approaches and innovative technologies.

The continent is in a position to modernize rapidly with the use of digital tools, new technologies and renewable energies.

Africa can skip a whole stage of development and position itself as pioneer of tomorrows solutions.

It is estimated that with smart, climate sensitive agriculture practices African annul agricultural production could increase from US$280 to US$880 bn by 2030

Africa is in a position to show that through its agriculture it is fully capable of adopting to climate change and evolving with more resilience to meet the challenges of productivity and sustainable development to ensure food security

Step 4b: AfCFTA

African Continental Free Trade Area (AfCFTA).

If fully adopted, AfCFTA will become one of the world's largest trading blocks.

EAC Home to around 150 million people, the six-state organisation is now one of the world's fastest-growing regional economic blocs.

Uganda also joined the Common Market for Eastern and Southern Africa (COMESA) free trade area that spans from Libya in the north to Swaziland in the south.

Then, in 2015, the trading blocs integration and signed the EAC-COMESA-SADC (Southern African Development Community) Tripartite Free Trade Area, which aims to increase economic cooperation between the three massive organisations

Step 4c: Building Blocs to Free Trade in Africa

A number of African countries have consolidated to create regional trade blocs in essence they all aim to achieve economic prosperity through regional integration.

1.68 billion Population of Africa in 2030 (UN)

Currently there are six key trade blocs in Africa:
1, Southern African Development Community (**SADC**);
2, Preferential Trade Area for Eastern and Southern African States (**PTA**) which was later replaced by the Common Market for Eastern and Southern Africa (**COMESA**);
3. East African Community (**EAC**);
4. Southern African Customs Union (**SACU**) which is one of the oldest trade blocs in Africa and its ally, the Common Monetary Area (**CMA**);
5. Economic Community of West African States (**ECOWAS**); and
the Customs and Economic Union of Central Africa (**UDEAC**) which was later replaced by the Economic Community of Central African States (**ECCAS**) and
6. Economic and Monetary Community of Central Africa (**CEMAC**).

Step 5: Aquaponics attractive to investors

We have succeed to make Commercial aquaponics attractive to investors through

1. Training

2. Purchasing/marketing cooperative

3, GSP (Grower Support Program = Training, Hand holding, Loans, Agricultural Insurance, Marketing,)

4 Climate smart Technology

5. Small, low cost Start up system

Step 6: Knowledge is power

Combine new technology and indigenous knowledge of food to create a locally developed food security solution

Action on the lake has displaced a whole group of fisher community,

If left idle for a long time they will become a security threat

Indigenous knowledge

They posses valuable skills acquired over generations in fish identification, handling, processing, transporting and marketing that are very essential to the industry

All we have to do is teach them CACANA.

Step 7: Constructing the System

- ❑ Join membership
- ❑ Call us to your facility where you want to set up the your dream system
- ❑ Take measurements, photographs and Design a members system.
- ❑ Produce Computer 3D Sketches, BOQ, income and expense projections. .
- ❑ Look for investment capital
- ❑ We set up and commission a system for you
- ❑ We supply you seed fish and quality feeds
- ❑ Join grower support program (GSP)
- ❑ After 1 month you are ready to sell your produce through the cooperative
- ❑ In the mean time you can enjoy income from Agrotourism
- ❑ You are also food secure, you have a green job, and contribute to national income

Step 8: The model SDF Farmer

Of the 40 Free Trainers of trainer (ToT's) and 15 self funded who took the Skills development Facility (SDF) training,

20 have had their dream systems designed,

6 have set up CACANA starter mini systems and are stock them with fish.

Each system is expected to grow 30,000 x 10grams juvenile every month.

Juvenile market price is @Ugx 350.

So the system can earn Ugx 10M /Month. 12 seasons a year.

They can sell taro yam every 6 months ie two seasons a vear.

Regular income from agro-tourism is an optional bonus

Step 9: Business model & testimonies

1. Small, low cost, viable commercial Aq system
2. Use locally available materials
3. High value produce
4. Monthly income – generates cashflow
5. GSP for start up farmers
6. Subsidized Agricultural insurance
7. Heavy feeder plant/ Africa's loved Staple food
8. indigenous solution to climate smart food security
9. Hardy fish and plants, solve power problem
10. No need of green house
11. Constant practical training
12. Agro-tourism bonus

Step 9a Materials for the system

Sacks with pumice, fish tanks, sump tanks, overhead tanks, grow beds of concrete and tank stands with pipes plumbed in

AMOS, after attending the SDF free training was motivated to INVESTED HIS OWN MONEY.

Step 9b: Transformation of a compound

From a compound of grass that had to be trimmed regularly at a cost..

To a garden that can produce food for home consumption with surplus to sale that literally maintains itself because of the revenue it generates as a biological fish filter

Step 9c: Process, Trade and Transport

You can no longer rely on capture fisheries to process, trade and transport.

We offer a reliable consistent sustainable supply of this vital commodity for the industry..

ACTION – INVESTMENT IS NEEDED

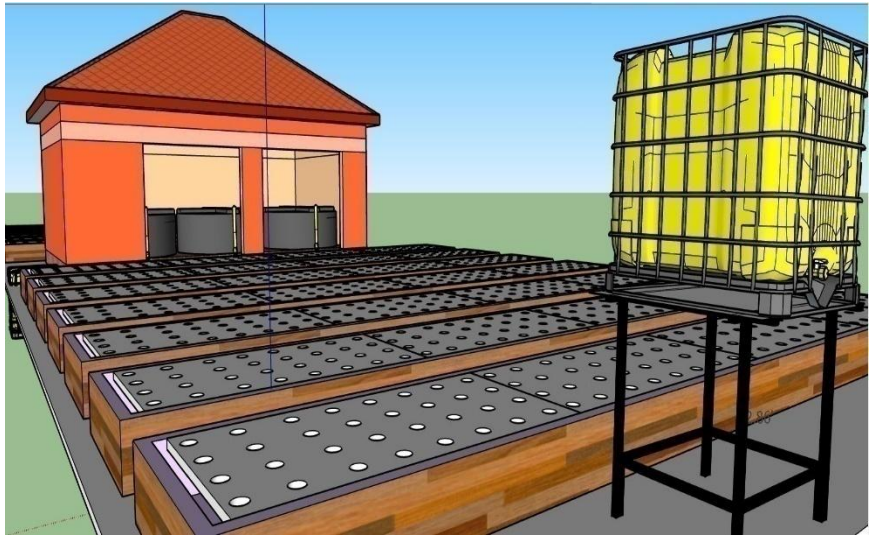
1. International community

2. National governments

3. Community HAS TAKEN THE LEAD

Community has invested, has combined indigenous technology with new technology. it is waiting for **international community and national Governments to play their role**

Step 9d: 80% farms in Africa are small



Using the power of small scale farmers, in the back yard, that forms 80% of farms in Africa, we can create an agricultural revolution that solves food security and climate change impact

NO NEED OF LARGE CHUNKS OF FERTILE LAND.

Step 9e: Waiting to add plants & Fish

Early adopters after the World bank funded training We are ready to add plants and fish.

Step 10: We need $2.1 Million for CACANA

We have CACANA, a viable model

$250,000 to Expand existing catfish hatchery from 100,000 fry to 1.5million/month at Budo. And live fry fish transport Van.

$1,000,000 to Set up CACANA center of Excellency at our 11 acre land in Namabo, Mpigi to produce 3 million Fry/month.

$600,000 to Set up revolving low interest Fund to give materials loans to 55 SDF trained entrepreneurs, average $2,500 per system.

These will encourage other adopters who will invest own money.

$250,000 to train other 400 entrepreneurs especially fisher community displaced from traditional capture fisheries on the lake and fish depletion.

Step 11: Come partner with us

Invest

The next market frontier – Africa

A Climate smart state-of-the-art tried and tested technology in Africa to benefit from $880billion smart agriculture market by 2030.

Import fish products under AGOA (live Juveniles, food, ornamental)

Research to develop Super food fish from untapped Wild Gene bank at origin for African catfish and Nile Tilapia native fish.

Agro tourism to Tourist destination #1, the pearl of Africa.

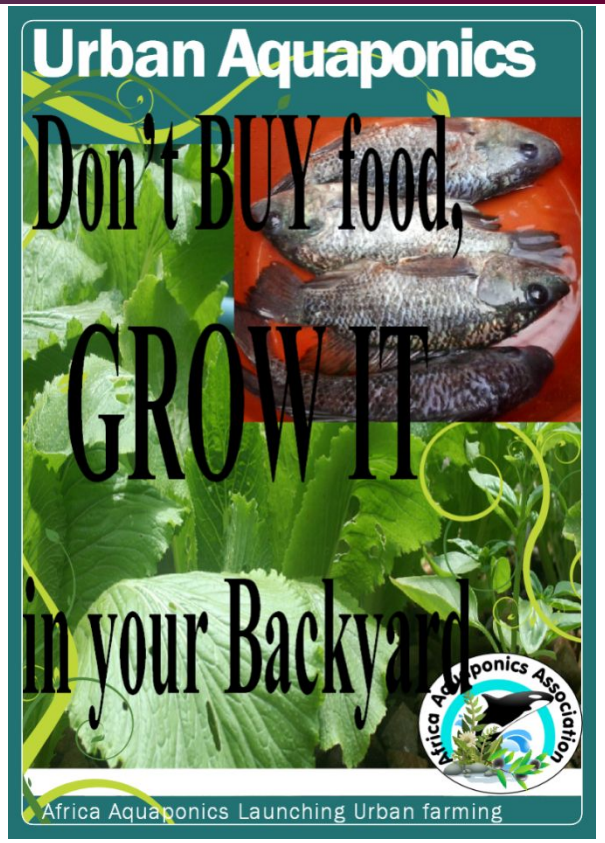
For Food Security

Step 12: Quality seed fish for aquaculture

CACANA® Has the Quality fish seed for pond, tank and cage fish farming industry. This is to awaken a huge installed non performing pond based fish farming infrastructure countrywide and the upcoming cage and tank farming systems.

CACANA® Grows high quality juvenile seed fish in a near natural condition for the delicate young fish and can sustain the seed supply.

Step 13: **CACANA®** for Business and Fun



State of the art, climate smart, indigenous developed solution to food security.

We have developed an e-Book and Will soon be offering a DIY e-Course

Step 14: AAA

A little about us…

Africa Aquaponics Association (AAA)

- Aquaponics training and workshops
- Small scale creative systems design – build
- Community scale aquaponics consulting, design, project management and construction administration (GSP)
- Economic Feasibility, Business Planning and Budget

Step 15: Commercial African Aquaponics Community Cooperative Society Ltd.

The Co-operative society…

This is a marketing/procurement cooperative.

- Collective market farmers produce for better prices
- Collective purchase power for better products & services
- Clear voice to lobby and articulate farmers needs,
- Funding Savings and lending SACCO, low interest materials loans with no collateral.

Step 16: Collective bulk procurement






Some of the specialized efficient components suited for Aquaponics that we need to procure and are not available on the local market..

1. Air compressors, regenerative air blowers
2. Submersible water pumps (high flow, low head)
3. UV water Sterilizers and purifiers
4. Water quality testing kits
5. Dissolved oxygen meter
6. PH, Ammonia, Nitrite, nitrate meter
7. Temperature meters and controllers
8. Nutritional supplements
9. Grow media, Styrofoam, pumice,
10. Seeds and seedlings
11. Organic pest control and others

Join CACANA® group

Yes You AfriCAN

Commercial AfriCAN Aquaponics

Thank you for watching