



Ablavi Danhode transplants rice at the Songhai centre in Lokossa in the south-eastern region of Benin.

# Benin leads the way in sustainable farming

*A 'green rural city' which produces organic nature-friendly food is setting an example that countries around the world want to follow*

**A**FRICAN leaders ignore agriculture at their peril as growing rural populations migrate to cities and continental demands for wholesome food spiral out of control.

"It's a time bomb," says a Dominican priest, Father Godfrey Nzamujo.

"We need sustainable agriculture for our survival, but we do not see or fathom the risk we run by not giving it the place and attention it deserves."

Heading the Songhai Regional Centre of Excellence in the tiny west African country of Benin, Njamujo has developed a "green rural city" which provides organic, nature-friendly food. Last year the centre earned UN "centre of excellence" status and has been duplicated in Nigeria, Liberia, Sierra Leone and Brazzaville with negotiations for further sites in Malawi, Tanzania, Zambia and now South Africa.

There are more than 300 successful Songhai model sites in Benin alone totalling more than 2 000 hectares.

Nigerian-born and educated in the US, Nzamujo, who is also a professor of engineering majoring in microbiology, says the "drama of our time" is incapacity to harness the potential and opportunities, which he says are



By Colleen Dardagan

MERCURY journalist Colleen Dardagan's visit to Benin was sponsored by the Technical Centre for Agriculture and Rural Co-Operation (CTA) in Africa, the Caribbean and Pacific countries.

The CTA is an EU-based organisation working in the field of information and development in the rural and agriculture sectors.



NZAMUJO

now greater than ever, to drastically reverse and change the socio-economic conditions in Africa.

The famine in parts of Ethiopia and Somalia is due to poor planning, he says.

"Africa's agricultural economy is largely subsistent, inefficient, high risk, low productivity with very little diversification. The result is a feast or a famine."

Also, says Nzamujo, food production is seen as unattractive for future entrepreneurs who are mainly young people and investors.

"So many youngsters are now moving away from their rural communities to urban areas. We can't sustain it."

He urges African leaders to put integrated and sustainable food production at the top of their agendas, calling it critical for economic growth in the future.

"Agriculture cannot develop by itself. It requires a complex system of markets, input supply, credit, technology, training and management. At Songhai our model includes all these services which help to provide jobs and environmentally sound habitats: a new millennium settlement model."

Africa must grow agriculture by 6 percent, energy supplies by 7 percent and its economy by 8 percent annually if the continent is to meet the basic needs of its population, says Nzamujo.

"We have to relearn the way we practice agriculture. We think farming is chemical – it's not, it's biological; we can't carry on pouring poisons into

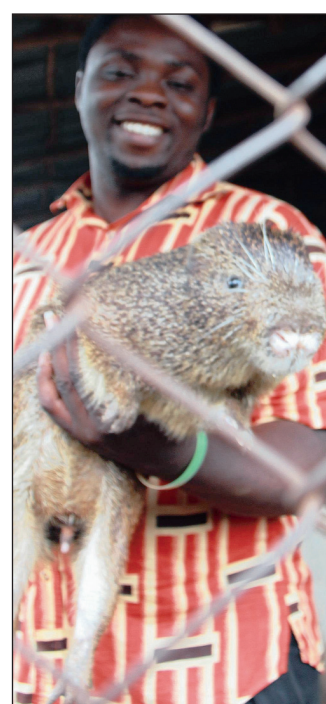


A youngster in Porto Novo, Benin, carries fuel to a waiting car. A shortage of fuel stations has resulted in petrol being smuggled from Nigeria and sold in large bottles in the informal sector.

our soils. Thousands and thousands of hectares of monoculture are not sustainable."

Sustainable development, he says, implies productivity is increased while protecting and enhancing the environment.

"Technology must enable us to produce more with less, where our incredible environmental and biological capitals are fully engaged and har-



Joseph Ama with an 8kg giant cane rat which is considered a delicacy in west Africa, but now is seen rarely in the wild. The rodent is grown commercially at Songhai in Porto Novo.

nessed. Where the way we view the soil and its fertility, through to the way we maintain, nourish and protect our plants and animals, to the way we condition and market them, changes dramatically."

## In harmony with nature

### Vibrant, family-based economy

BORDERED by Burkina Faso, Togo, Niger and Nigeria on the west coast of Africa, Benin is home to 8 million people who rely mainly on subsistence farming for their existence.

It is the second oldest democracy in Africa, having achieved its independence from France in 1960 – two years after Ghana.

Benin's biggest GDP contributor is the port in its

capital, Cotonou, which is used by neighbouring landlocked countries as a main route for exports and imports.

While many in the West might label the country poor, it has, in fact, a vibrant economy based on small family-owned enterprises supplying all the needs of the population, from home-baked French baguette – a delicious local staple – to motor spares.

No waste, animals native to Benin raised commercially, no chemical or herbicides, and yet, row upon row of shades of green bursting with nutritional goodness.

Orchards, vegetables, yards of chickens and ducks and a sewer cleansed naturally by the indigenous water hyacinth until it's sparkling clean and home to thousands of catfish and tilapia.

Between the bamboo chicken houses and pig pens a maze of canals carry storm water to lakes.

Ripples on the surface hint at the thousands of fish growing and breeding at a rate encouraged by a tasty treat of protein-rich maggots and mos-

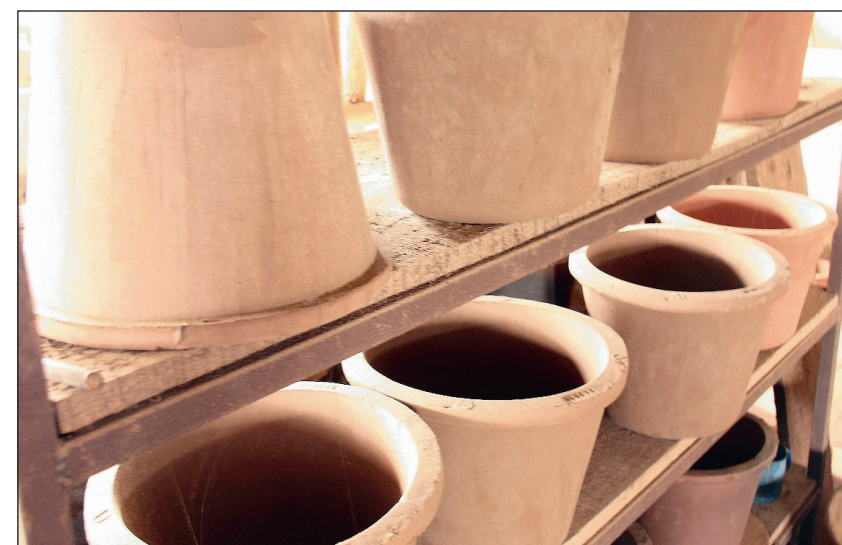
quito larvae harvested from animal waste. Sprawling, low-lying sheds, reveal production of home-grown animal feed and bags of rice packed to the rafters.

A pottery shed where rainwater filters are handmade and, just outside, bio-gas digesters silently turn animal waste into energy. This production chain working in harmony with nature makes agriculture simple, yet logical.

In Nzamujo's words, "I see the power of nature, it's God's almighty handiwork. I just want to dance with it and romance with it."

"I dreamed this. I had a vision and now like a film it's rolling out. I am humbled."

## Culture of discipline is a 'weapon of mass construction'



Ceramic pots handmade at the Songhai Centre in Porto Novo fit into a plastic bucket with a lid and tap, and are used to filter rainwater.

RURAL development is the complete transformation of the whole institutional structure of rural society, and agriculture should be viewed as a "weapon of mass construction".

Father Godfrey Nzamujo, who has changed the face of rural agriculture in Benin through his Songhai Green Rural City model, says his projects are based first on core values that are "not negotiable".

"We have a culture of discipline, solidarity, integrity and strong work ethics – and this has to be appropriated by leaders and managers and the majority of the workforce for the model to work."

People are coming late for work, - laziness around, organising labour unions and exhibiting technical and organisational incompetence is not tolerated.

He says that the integrated system of the model is unique in that it constitutes four essential components.

"It is a technology park where new ideas are developed, it is an industrial park and production centre where the ideas are turned into enterprises, it is an incubator for training. Songhai is a mother firm or farm... that produces functional individuals. Songhai is also a service centre and a place where graduates are brought into the logic of production. Their teachers are barefoot researchers, entrepreneurs, who are continually search-



Maggots are produced at the Songhai Centre of Excellence using animal waste. Their protein content speeds up the growth of catfish farmed at the centre.

ing... techniques to improve productivity and efficiency," he says.

"Accountability is our way of life. It is only work of a high quality that can ensure our liberation. We are not entitled to anything unless we produce it ourselves... Let us stop being passive consumers and become agents of transformation. The price we have to pay... is effort," he says.

## Ideal agricultural model

THE Director-General of the national Department of Agriculture, Langa Zita, who recently took a delegation to the Songhai Centre of Excellence in Porto Novo, Benin, says the Songhai rural agriculture model is ideal for South Africa.

"We are currently working on a memorandum of understanding with Songhai. Our plan is to set the centres up in the former homelands."

"I have wanted to visit Songhai for six years. The low-input agriculture model lived up to all my expectations. With as little as R2 000 someone can start something."

"They use no fertilisers or pesticides and the waste from each element or species is used to feed or grow another. The advanced agri-processing with low input is exactly what we are looking for here," he enthused.