



TV

# UNITED NATIONS NATIONS UNIES

## UN IN ACTION

---

Release Date: March 2009

Programme No. 1176

Duration: 3"54"

Languages: English, French, Spanish, Russian

### NUCLEAR SCIENCE FOR FOOD SECURITY

#### VIDEO

VIETNAM'S MEKONG DELTA  
LANDSCAPE

RICEFIELD

CHIKELU MBA, HEAD, IAEA'S  
PLANT BREEDING UNIT, ON  
CAMERA

#### AUDIO

##### NARRATION:

Rice has been grown in Vietnam's Mekong Delta for thousands of years. But because seawater frequently floods the low-lying land, farmers struggled with salt-polluted soil. Plants were often weak and harvests low. (14.5")

Mr. Chikelu Mba is head of IAEA's Plant Breeding Unit. (4.5")

CHIKELU MBA: (English) **M**

*"Climate change translates to drought, it translates to desertification, it translates to unprecedented levels of flooding that we are seeing. It also leads to salt pollution of the soil. All these contribute to depress crop yields. And when crop yields are depressed then you have scarcity and when there is scarcity there is a spike in food prices. And they become out of the reach of the common person."* (26")

	<u>NARRATION</u>
FARMERS HAULING THEIR RICE CROP TO MARKET/ STOREOWNERS	Fast forward to today and the Mekong Delta is Vietnam's prime rice producing area. Rice is exported from here to countries around the world, at considerable economic gain for its farmers. (12.5")
C/U FARMER FACING DOWN	
FARMER SPREADS FERTILIZER	The reason for the turnaround? The introduction of high-yielding, salt-resistant rice varieties developed by plant breeders, with the support of the International Atomic Energy Agency. (11")
IAEA LABORATORY HQ – WOMAN ENTERS	At their laboratories just outside Vienna, agency scientists use nuclear technology to help countries like Vietnam achieve enhanced agricultural output. They apply radiation to seeds or parts of plants – it speeds up the process of spontaneous changes that occur naturally in plants over thousands of years; changes that produce certain characteristics. It's a proven, cost effective and environmentally friendly technique. (29")
SCIENTISTS WORKING INSIDE LABORATORY	
	Mr. Pierre Lagoda is head of IAEA's Plant Breeding and Genetics Section. (4.5")
	<u>PIERRE LAGODA:</u> (English) <b>M</b>
PIERRE LAGODA, HEAD, IAEA'S PLANT BREEDING AND GENETICS SECTION, TALKS ON CAMERA	<i>"For 70 years now, deliberate use of nuclear technology to enhance and improve crops have produced up to 3,000 officially released new varieties, better yield, higher quality, nutritious value, resistance to harsh environments,</i>

*resistance to diseases and pests. So, yes, we can indeed produce, using a tool, new and better crops to feed the world.” (26”)*

#### NARRATION

FARMER & HIS FAMILY OUTSIDE  
THEIR HUT

In Ghana, cocoa farmers face an old enemy in the Swollen Shoot Virus. For decades it has attacked plantations, sometimes wiping out harvests and thousands of cocoa trees. Now, thanks to mutation breeding techniques, cocoa strains have been developed that have strong resistance to the virus. (18.5”)

PAN COCOA PLANTATION

WOMAN PICKING PAPAYA FROM  
A TREE

Better harvests mean increased exports and improved economic growth for this sub-Saharan country. (5.5”)

MAN CARRYING LARGE  
CASSAVA CROP

Cassava, with its large starchy roots, is a staple food for millions of people in African countries such as Ghana, Nigeria and Sierra Leone.

FAMILY EATING CASSAVA DISH  
OUTSIDE THEIR HOME

Experts say if a major disease should strike the cassava crops, there would be widespread famine. (16”)

W/S CASSAVA PLANTATION  
INSIDE GREENHOUSE  
CASSAVA PLANTS

Research at the IAEA laboratories is focused on crops that are crucial to the food security of millions of people. (7”)

M/S INSIDE A HUT  
PAN WOMAN W/ CHILDREN

As the world faces a new food crisis of overwhelming proportions, the use of nuclear technology to enhance agricultural production provides a sustainable, long-term solution. (11.5”)

UN LOGO

This report was prepared by Angela Leuker for  
the United Nations. (4)