



Systematic use of fertilizers can save forests, fight climate change

As the world grapples with the challenge of feeding an ever growing population in the face of dwindling natural resources confounded by climate change, findings from a recent research by IITA show that science-based farming methods integrating the systematic use of fertilizer by farmers can significantly reduce the need to clear forest land for agriculture, one of the identified culprits of global warming.

Findings of the research, published in the latest issue of Environmental Management Journal, show that the use of fertilizers and improved cocoa varieties by smallholder farmers could have averted the destruction of some 2.1 million ha of the Guinean Forest of West Africa and the subsequent emission of 1.4 billion tons of carbon dioxide into the atmosphere valued at over US\$1.6 billion. At the beginning of the 21st century, only 18% of the original forest that once stretched from Guinea to Cameroon remained. This forest is one of the 25 global biodiversity hotspots identified by the UN and collectively contains 60% of all animal and plant species on the planet. Through the years, most of the forest area had been



IITA forest in Ibadan

converted to farmlands with a large chunk of it comprised of smallholdings growing cocoa, cassava, and oil palm.

The research, looking into the land use change scenarios in Cote d'Ivoire, Ghana, Nigeria, and Cameroon from 1998 to 2007, found that although cocoa production more than doubled in West Africa during the period, it came at a huge cost – the irreversible loss of biodiversity and enormous carbon emission. Proponents of the study

say that the same output would have been possible with little or no increase in the land area by using improved varieties and following fertilizer use recommendations developed by agricultural researchers in the 60s.

Jim Gockowski, agricultural economist with IITA and one of the researchers, says smallholder farmers cannot continue to expand their enterprises with low-input extensive agriculture. "With the reduction of the Guinean forests to 15 -20% of its original size and the tripling of populations in these countries, there is absolutely no more room for expansion. Strategies to reduce deforestation and conserve biodiversity must focus on reforming agricultural practices and weaning farmers from traditional to modern science-based methods," he said.

The project "Fertilizer-for-Forests has proven that it is possible to increase crop production with little or no effect on the environment." This study further recommended that Reducing Emissions from Deforestation and Forest Degradation (REDD)/climate change mitigation programs must address low agricultural productivity by investing in intensification of agriculture. By doing this, farmers would not only have better incomes but also produce more food while reducing carbon emissions. The study also identified and called for solutions to lack of credit facilities, an underdeveloped agrochemical /fertilizer sector, inadequate seed multiplication, poor roads, and weak extension systems.

IITA bids Obreza Matija farewell



Matija Obreza (in necktie) poses with staff for a photo

IITA held a farewell party for Obreza Matija, Software Development Manager. Matija worked on software development under R4D Support. He was part of the team that developed the new IITA website. During his 3-year stay with IITA, Matija developed software applications

for the genebank and provided solutions to software and IT-related problems in areas including the online performance appraisal system, travel authorization, project databases, institutional repository, content management system, and other Web applications.

Farmer field schools: Scientists train farmers on agric techniques



Farmers take lessons at a farmer field school

IITA scientists working under the AVEC-BF project organized a farmers' field school to improve and strengthen farmers' agriculture techniques.

The project targeted small-scale farmers of Burkina Faso. It hopes to enhance the adoption of early maturing cowpea genotypes developed by IITA and INERA.

The improved cowpea varieties mature within 60-70 days and can escape serious drought stress that are frequently experienced by cowpea producers in the dryer regions of Burkina Faso.

The overall aim of the project is to provide options for resource-poor farmers to stabilize their food supply and improve incomes. The training, which was held in Saria station on 26-27 January, involved 10 teachers/farmers from five villages.

The farmers received lectures on viruses and diseases in cowpea, soil control technique and how to make compost, and basic physiology about the parasitic plant of cowpea.

Haruki Ishikawa, IITA scientist, spoke on the food situation and nutrition in Africa with emphasis on Burkina Faso. Farmers were exposed to both theoretical and practical teaching.

Also, the farmers shared ideas and expressed their opinions in the farmer school.

Farmers were given certificates at the end of the activity. They are expected to go back to their communities and pass the knowledge gained to other members of the community.

At the end of the training, the farmers were happy and more confident in tackling challenges on their farms.

CFC commends IITA for implementation of project in Nigeria

The Managing Director of the Common Fund for Commodities (CFC), Ambassador Ali Mchumo, has commended IITA for a job well done in the implementation of the cassava value addition project.

Mchumo, who attended the 2010 governing council Meeting of CFC in Abuja, also used the opportunity to visit project sites in the country to have a first hand assessment.

He was taken around by the CFC team in IITA and in the company of country coordinators in Nigeria and Benin Republic. The team visited the CFC SME pilot plant in Masaka and the community based microprocessing center in Lafia, Nassarawa state.

Mchumo thanked the beneficiaries for using the facilities for the production of different cassava recipes.

He urged the government to support small-scale entrepreneurs, stressing that they were part of the engine of economic growth.

His visit coincided with that of the National Agency for Food and



Archive photo: Women frying gari after commissioning of CFC project

Drug Administration and Control (NAFDAC) to the Joe Begg cassava enterprise—one of the beneficiaries.

The NAFDAC team were doing an inspection of the enterprise with a view to registering some of the cassava products being produced.

The cassava value addition project

aims to promote the processing of cassava into diverse products, opening new markets for the commodity. The project, led by Prof. Lateef Sanni, is being implemented in Nigeria, Benin, and Sierra Leone.

Sanni thanked the team for the visit and pledged the commitment of the project to judicious use of resources.