







## CLIMATE CHANGE IN AGRICULTURE

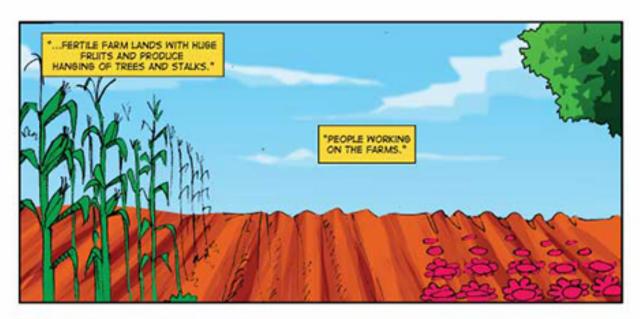
CLIMATE CHANGE AFFECTS WEATHER SEASONS AND BRINGS EXTREME WEATHER. THE EFFECTS OF CLIMATE CHANGE ARE LIKELY TO INCREASE OVER THE COMING DECADES, BRINGING MORE DESERT AND DROUGHT, AT THE SAME TIME MORE EXTREME RAINS AND FLOODING TO NIGERIA. SOILS ARE GETTING POORER AND PRODUCE LESS HARVEST. CURRENTLY, ONLY 5 % OF NIGERIAN FARMERS HAVE ACCESS TO IMPROVED SEEDS WHICH CAN WITHSTAND THE EFFECTS OF CLIMATE CHANGE. MORE AND MORE PEOPLE ARE LIVING ON LESS FERTILE LANDS.

IF NIGERIA INTRODUCED SUSTAINABLE AGRICULTURE ON ALL ITS 79 MILLION HECTARES OF ARABLE LAND, IT COULD FEED ITS ESTIMATED POPULATION OF 255 MILLION PEOPLE IN 2030. IN THE LONG TERM, ORGANIC FERTILISER KEEPS SOIL FERTILITY HIGHER THAN SYNTHETIC FERTILISER.

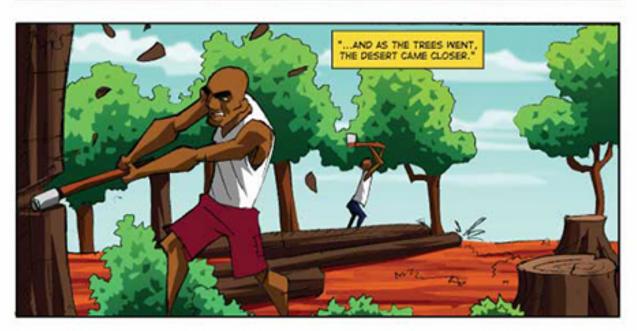
HTTP://NG.BOELL.ORG/CATEGORIES/LAND-AND-AGRICULTURE





















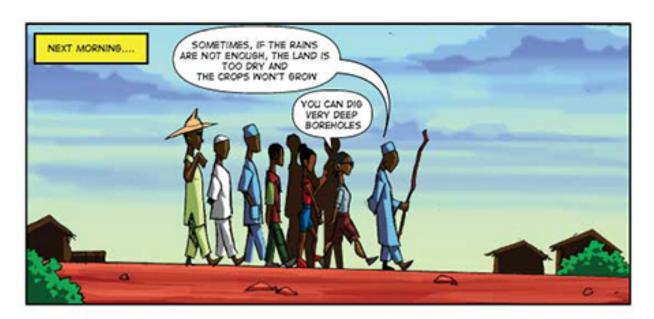




















## RENEWABLE ENERGY IN AGRICULTURE

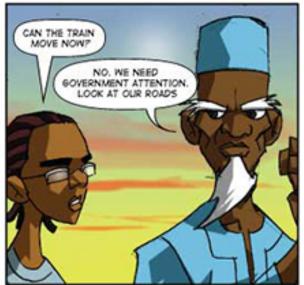
**DUE TO** THE ABSENCE OF STORAGE AND PROCESSING FACILITIES, 40% OF FRUITS AND VEGETABLES GROWN BY NIGERIAN FARMERS GO TO WASTE BECAUSE THEY DO NOT REACH THE MARKETS FAST ENOUGH.

ROADS HELP REDUCE THIS WASTE. RENEWABLE ENERGY CAN ALSO PLAY A BIG PART: SOLAR, WIND AND BIOGAS CAN PROVIDE POWER FOR FOOD PROCESSING OR STORAGE WHERE THE ELECTRICITY GRID DOES NOT REACH. FARMERS WORLDWIDE OFTEN RELY ON BIOGAS AS THEY PRODUCE WASTE THAT CAN BE TURNED INTO POWER. BUT THIS MUST BE OBSOLETE WASTE LIKE SORGHUM STEMS; IT SHOULD NOT BE ROTTING FOOD THAT COULD OTHERWISE FEED PEOPLE, OR WASTE THAT COULD BE TURNED INTO ORGANIC FERTILISER.

IRRIGATION POWERED BY RENEWABLE ENERGY CAN REDUCE UNEMPLOYMENT, HUNGER AND POVERTY IN THE MOST REMOTE AREAS. FARMERS AND CITIZENS SHOULD DEMAND THAT CAPITAL BUDGETS ARE SPENT ON IRRIGATION SYSTEMS BASED ON RENEWABLE ENERGIES.

HTTP://NG.BOELL.ORG/CATEGORIES/CLEAN-ENERGY











### WHAT SHOULD BE DONE?

MAPPING OF AGRICULTURAL POTENTIALS SHOWS WHAT AN LGA OR A STATE COULD PRODUCE TODAY, AND CAN PROJECT THE BEST MATCH OF SOILS AND PRODUCE WITH FUTURE CHANGES IN THE CLIMATE. FOR EXAMPLE, THE MINISTRY OF AGRICULTURE INTRODUCED DRY SEASON RICE FARMING AFTER THE BIG FLOODS OF 2012, AND THIS BENEFITED FARMERS WHO HAD LOST THEIR HARVESTS TO THE FLOODS. MAPPING INCLUDES SATELLITE DATA, LAND USE AND SOIL FERTILITY INFORMATION COMBINED WITH GLOBAL CLIMATE CHANGE DATA.

SMALL SCALE FARMERS CAN BE EQUIPPED WITH KNOWLEDGE OF THE KIND OF SEEDS, CROPS AND PLANTING TECHNIQUES THEY SHOULD USE TO ADAPT TO CLIMATE CHANGE. WHEN AGRICULTURAL EXTENSION SERVICES (MOSTLY GOVERNMENT AGENCIES) WORK HAND-IN-HAND WITH RESEARCH INSTITUTES AND WITH SMALL SCALE FARMERS, THIS INCREASES THE HARVESTS AND GIVES FAMILIES WHO LIVE OFF THEIR LAND ENOUGH FOOD.

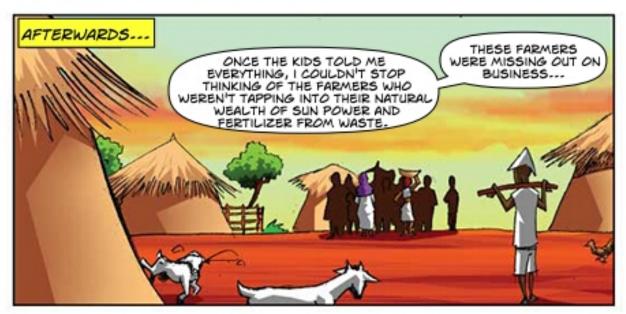
HTTP://NG.BOELL.ORG/CATEGORIES/LAND-AND-AGRICULTURE

























# REGREENING

**DESERTIFICATION** CAN BE CONTAINED WITH RE-GREENING TECHNIQUES. IN NIGER REPUBLIC, FARMERS HAVE TURNED BARREN LAND INTO PRODUCTIVE FIELDS WITH SIMPLE AND LOW-COST TECHNIQUES.

HTTP://NG.BOELL.ORG/2012/08/27/RE-GREENING-SAHEL











### WHAT'S IN IT FOR YOU?

AGRICULTURE HAS MILLIONS OF JOBS FOR YOUNG NIGERIANS. MAKE SURE YOU BENEFIT FROM THE AGRICULTURAL TRANSFORMATION AGENDA. THE FEDERAL MINISTRY HAS STARTED YEAP, THE YOUTH EMPOWERMENT IN AGRICULTURE PROGRAMME, WHICH AIMS TO PROVIDE ACCESS TO FINANCE FOR 750,000 YOUNG FARMERS.

DETAILS ON THEIR WEBSITE:

WWW.FMARD.GOV.NG



# Click Here to learn more

The comic has been designed & development by

