

DESERTIFICATION



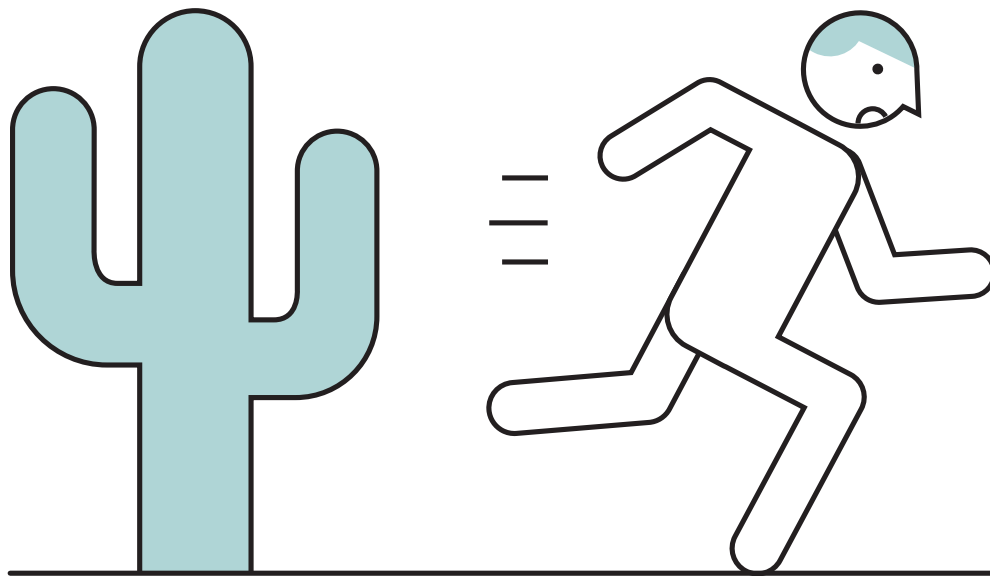
DESERTI- FICATION



INTRODUCTION

More than a billion acres of farmland on the planet have already been abandoned due to degradation and desertification. It is predicted that if we continue with 'business as usual' we will exhaust our ability to farm altogether within 60 years.

Trees and natural vegetation are the solution to halt and reverse desertification, but these are in direct conflict with grazing livestock. The solution is simple: remove the livestock.



DESERTIFICATION THREATENS 1 BILLION PEOPLE

“The livelihoods of more than one billion people in some 100 countries are threatened by desertification. Nearly one billion of the poorest and most marginalized people, who live in the most vulnerable areas, may be the most severely affected by desertification”

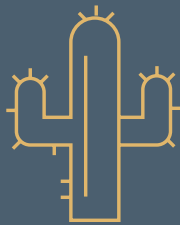
United Nations, 2010

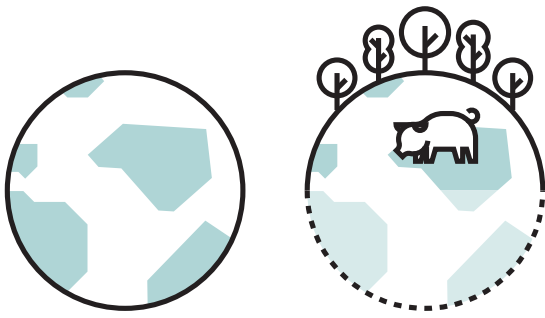
– 8 –

Desertification

PROBLEM

**Agricultural Land
Turning to Desert**

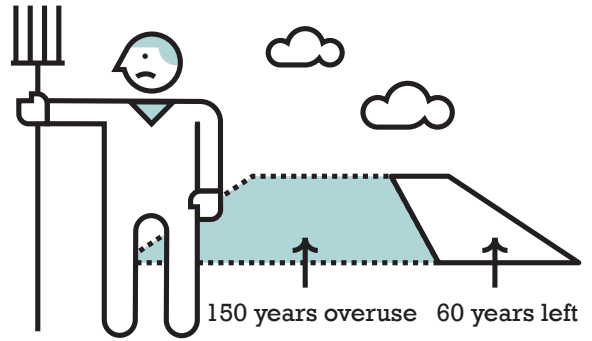




50% OF WORLD SOIL GONE

“Half of the topsoil on the planet has been lost in the last 150 years”

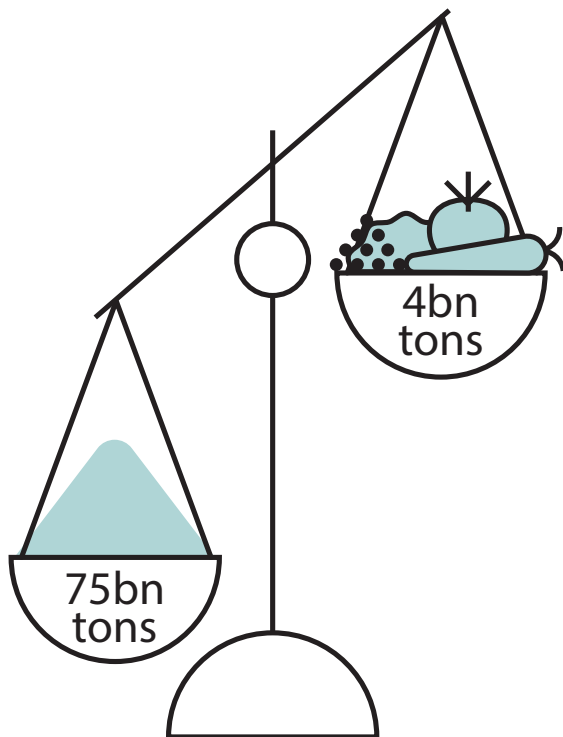
WWF, 2016



60 YEARS OF FARMING LEFT IF SOIL DEGRADATION CONTINUES

“Generating three centimetres of top soil takes 1,000 years, and the world’s topsoil could be gone within 60 years”

Scientific American, 2014



75 BILLION TONNES OF SOIL LOST ANNUALLY

“An estimated 75 billion tonnes of soil is lost annually with more than 80% of the world’s farming land moderately or severely eroded”

The Telegraph, 2010

4 BILLION TONNES OF FOOD PRODUCED ANNUALLY

“Each year, about 4 billion metric tonnes of food are produced”

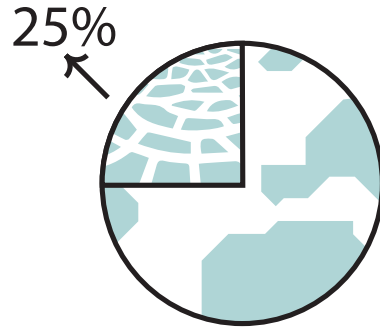
European Parliamentary Research Service, 2014



POOR IN 100 COUNTRIES MOST AFFECTED

“Over 250 million people are directly affected by desertification and one billion people in over 100 countries are at risk”

IFAD, International Fund for Agricultural Development, 2001



DESERTIFICATION THREATENS 25% OF EARTH'S SURFACE

“One quarter of the earth's surface is threatened by desertification, an area of over 3.6 billion hectares”

IFAD, International Fund for Agricultural Development, 2001



DESERTIFICATION AFFECTS 168 COUNTRIES

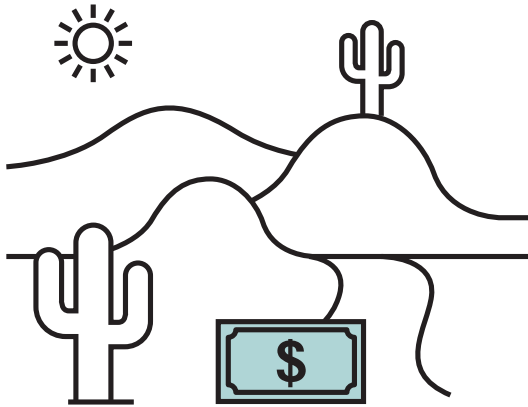
“Desertification, the degradation of the land in the world's dryland areas, now affects 168 countries”

United Nations Convention to Combat Desertification, 2013

195 COUNTRIES IN THE WORLD

“There are 195 independent sovereign states in the world”

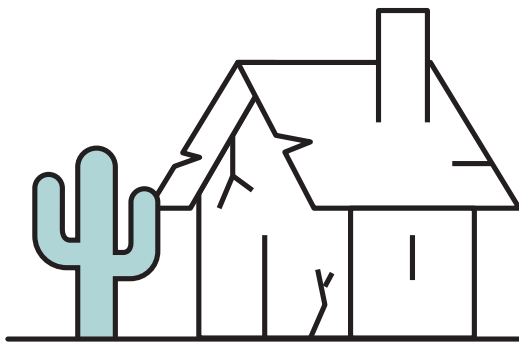
Nations Online



DESERTIFICATION COSTS \$40 BILLION US ANNUALLY

“Lost value from land use change and land degradation at 10% to 17% of current global GDP annually.”

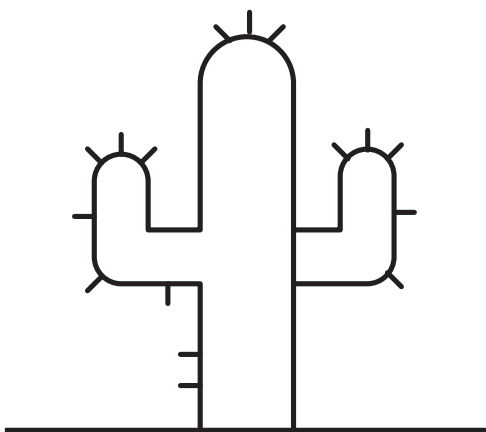
ELD, The Economics of Land Degradation, 2015



135 MILLION MADE HOMELESS BY DESERTIFICATION

“Desertification threatens the livelihoods of one billion people and has already made 135 million people homeless”

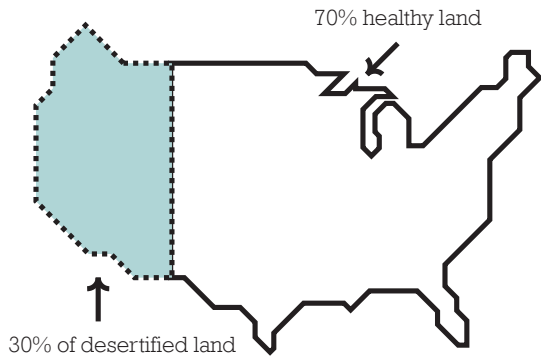
IFAD, International Fund for Agricultural Development, 2001



ONE THIRD OF GLOBAL ARABLE LAND IS DEGRADED OR DESERT

“One third of the world’s arable land is thought to have been affected by degradation or desertification”

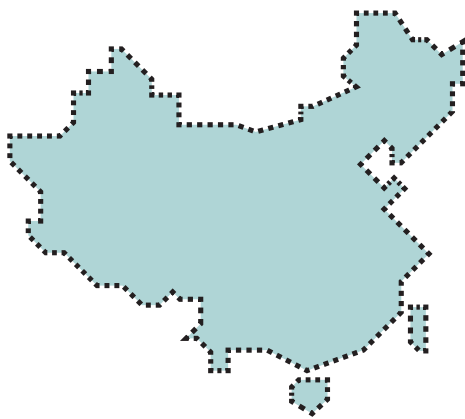
ELD Initiative, 2015



DESERTIFICATION AFFECTS 30% OF US

“Over 30% of the land in the United States is affected by desertification”

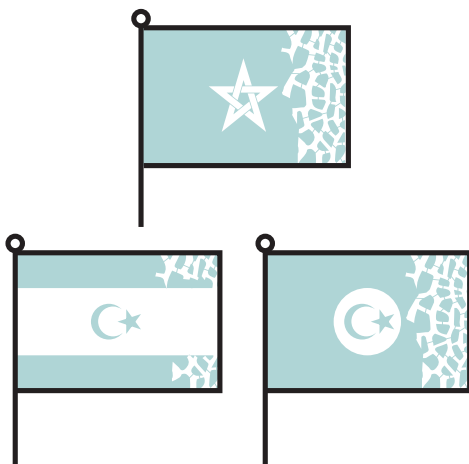
United Nations Convention to Combat Desertification



GOBI DESERT EXPANDS 3,600 KM² ANNUALLY

“The Gobi Desert in China expands more than 3,600 square kilometres (1,390 square miles) every year”

National Geographic



DESERTIFICATION CLAIMS 1,000 KM² OF LAND IN MOROCCO, TUNISIA, AND LIBYA ANNUALLY

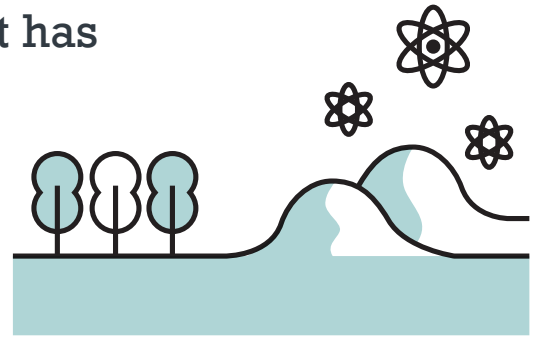
“Morocco, Tunisia, and Libya each lose more than 1,000 square kilometres (386 square miles) of productive land every year to desertification”

National Geographic

SOIL DEGRADATION RELEASES CARBON

“The degradation of soils from unsustainable agriculture and other development has released billions of tons of carbon into the atmosphere”

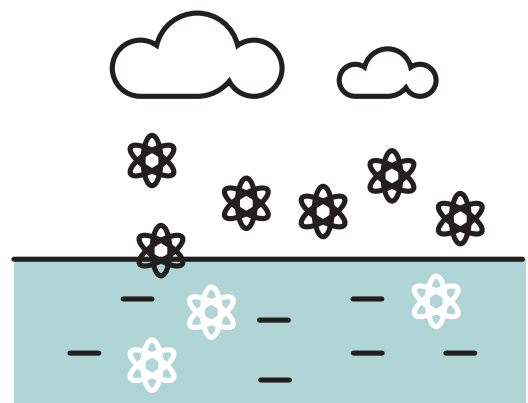
Yale University, 2014



THE SOIL'S ABILITY TO ABSORB CARBON HAS DROPPED 70%

“Scientists say that more carbon resides in soil than in the atmosphere and all plant life combined; there are 2,500 billion tons of carbon in soil, compared with 800 billion tons in the atmosphere and 560 billion tons in plant and animal life... the world's cultivated soils have lost between 50% and 70% of their original carbon stock”

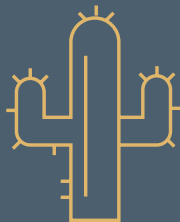
Yale University, 2014



– 8 –

Desertification

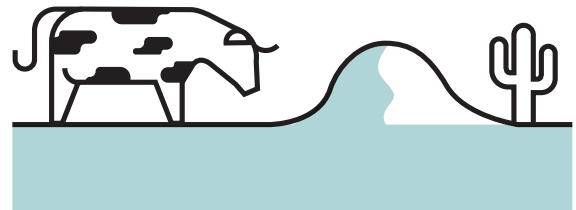
CAUSE



AGRICULTURAL MISMANAGEMENT CAUSES DESERTIFICATION

“Desertification is the accumulated result of ill-adapted land use and the effects of a harsh climate. Four human activities represent the most immediate causes: over-cultivation exhausts the soil, overgrazing removes the vegetation cover that protects it from erosion, deforestation destroys the trees that bind the soil to the land and poorly drained irrigation systems turn croplands salty”

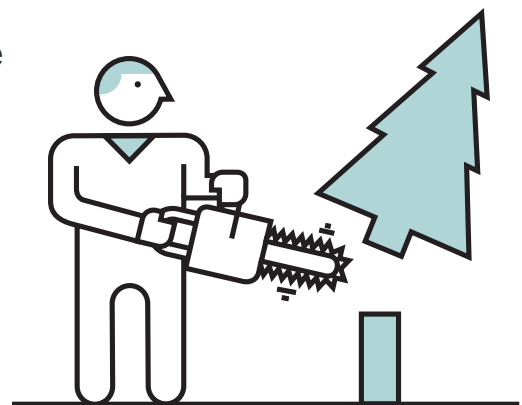
*United Nations Educational,
Scientific & Cultural
Organization (UNESCO)*



INAPPROPRIATE AGRICULTURE CAUSES DESERTIFICATION

“The major causes of soil erosion are still inappropriate agricultural practices, deforestation and overgrazing”

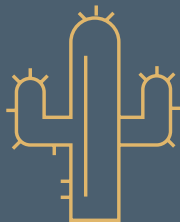
European Commission

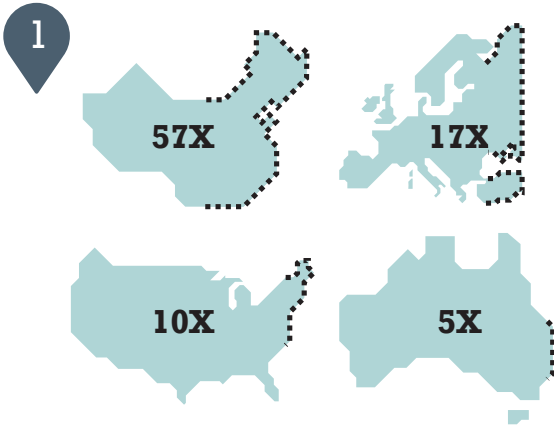


– 8 –

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TIMELINE

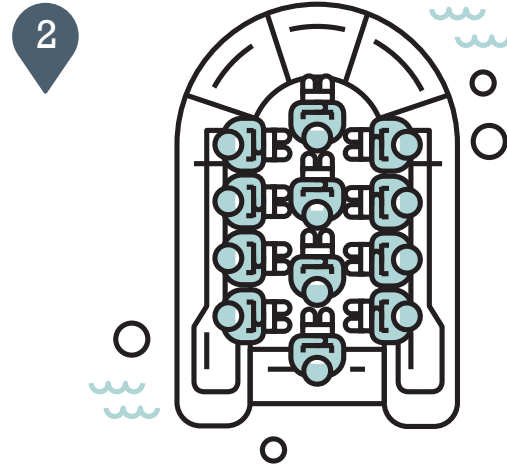




SOIL IS BEING LOST 57X FASTER THAN IT'S CREATED IN CHINA, 17X IN EUROPE, 10X IN THE US, AND 5X IN AUSTRALIA

“Soil is being lost in China 57 times faster than it can be replaced through natural processes. In Europe that figure is 17 times, in America 10 times while 5 times as much soil is being lost in Australia”

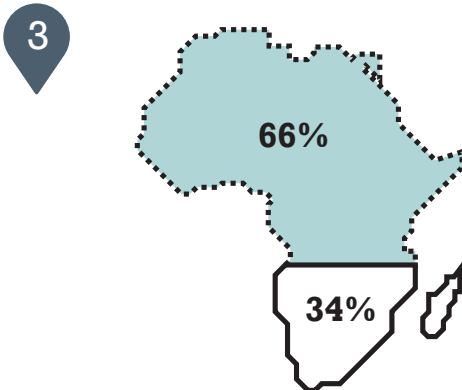
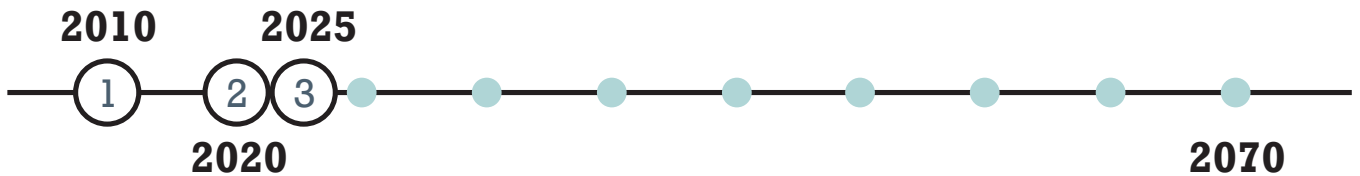
The Telegraph, 2010



BY 2020 DESERTIFICATION WILL CREATE 135 MILLION REFUGEES

“By 2020 an estimated 60 million people could move from desertified areas of sub-Saharan Africa towards North Africa and Europe, and worldwide, 135 million people could be placed at risk of being uprooted by desertification”

United Nations, 2006

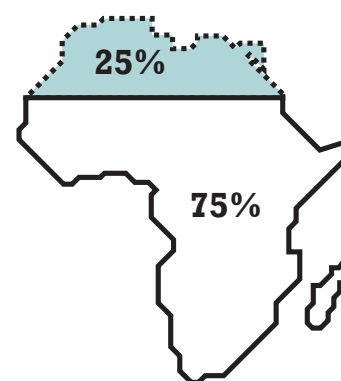


BY 2025 66% OF AFRICAN LAND WILL BE DESERT

“Two-thirds of Africa's farmland may be swallowed by Saharan sands by 2025”

National Geographic, 2010

VS



PRESENTLY 25% OF AFRICA IS DESERT

“The continent of Africa is the second largest in the world, and over 25% of its total land area is desert”

USA Today

4



70% OF AFRICA'S POOR DEPEND ON FARMING

"More than 70% of Africa's poor depends on farming, according to the IPCC"

National Geographic, 2010

5



BY 2035 SOIL LOSSES WILL REDUCE CROP YIELDS BY 41% IN ASIA

"During the next two decades if soil losses continue unchecked in Africa, the potential rain fed crop production will decline about 15%, in Southeast Asia, production will fall about 19%, and in Southwest Asia, more than 41%"

Food and Agriculture Organization of the United Nations

2010

2035

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2070

BY 2070 THE WORLD WILL RUN OUT OF SOIL

"World soil, including European and British soils, could vanish within about 60 years if drastic action is not taken"

The Telegraph, 2010

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– 8 –

Desertification

SOLUTION



PLANTING TREES PROTECTS AGAINST DESERTIFICATION

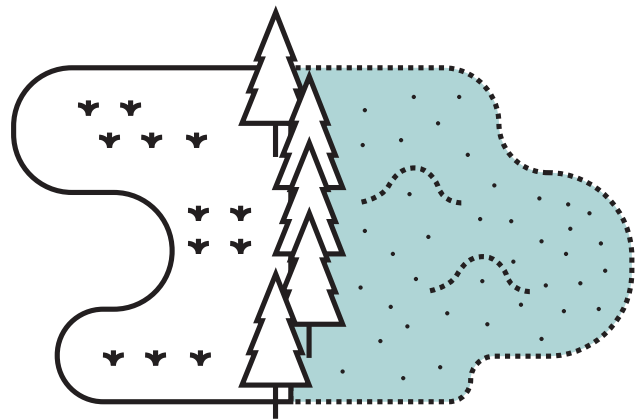
“Almost 270,000 people live in the Aguié Department of Niger. For many years, poor people in the area cut down trees for fuel, building and other uses. With each year’s rains, tiny tree shoots would emerge from the soil, a reminder of the thousands of stumps and roots lying just below the surface. Animals grazed on the shoots and farmers cleared them to make way for crops. But without the trees, the land became unproductive and the crops failed.

IFAD recognized that the only way to improve food security and incomes in the region was to come up with a programme that would allow the trees to grow. In 2000, an assisted natural regeneration programme was implemented on more than 100,000 hectares of land. IFAD has been a major contributor to the programme.

The programme has been a resounding success. An evaluation found there were about 50 new trees per hectare in the programme area. Vast zones of the 100,000-hectare area are now protected from sandstorm damage.

Reforestation rates were lower in non-programme areas. Assisted natural regeneration has also contributed to restoring soil fertility. The benefits of tree regeneration have been so dramatic that farmers not directly involved in the programme are also following the practice”

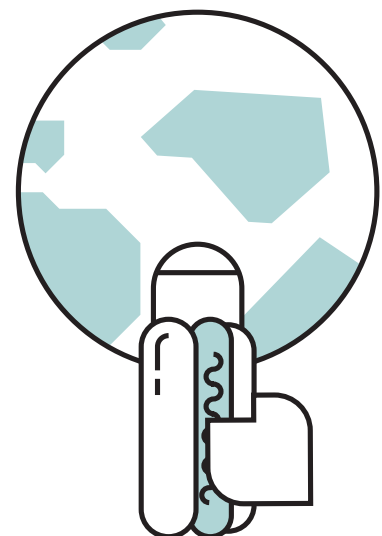
*International Fund for
Agricultural Development (IFAD)*



PLANT BASED DIET CAN SAVE THE WORLD

“A substantial reduction of impacts would only be possible with a substantial worldwide diet change, away from animal products”

United Nations Environment Programme, 2010





www.worldpreservationfoundation.com