

Big Facts speak for themselves

A website dedicated to showcasing the latest scientifically-backed evidence related to climate change, agriculture and food security (<http://www.ccafs.cgiar.org/bigfacts>).

What's it all about?

The Big Facts website brings together information on all the big issues to do with climate change, agriculture and food security. Population growth, changing diets, deforestation, food waste and other topics are all there, along with proven successful options for adaptation and mitigation. Add in summaries of the political and financial climates and the Big Facts website is the go-to resource for accurate information. All the facts are derived from scientifically credible sources, with links to more detailed information as well as references to the original sources. Furthermore, in addition to being open access, the entire site is peer reviewed, adding crucial checks and balances. Big Facts also invites improvements, updates and corrections.

The facts on Big Facts

- ▶ 285 peer-reviewed facts
- ▶ Links to more than 340 research resources
- ▶ More than 150 downloadable infographics
- ▶ Completely open-access
- ▶ 33 downloadable fact sheets
- ▶ Peer-reviewed
- ▶ Constantly updated with latest data

FOOD SECURITY

ALMOST A BILLION PEOPLE are going hungry, while we waste **1/3 OF THE FOOD WE PRODUCE.**



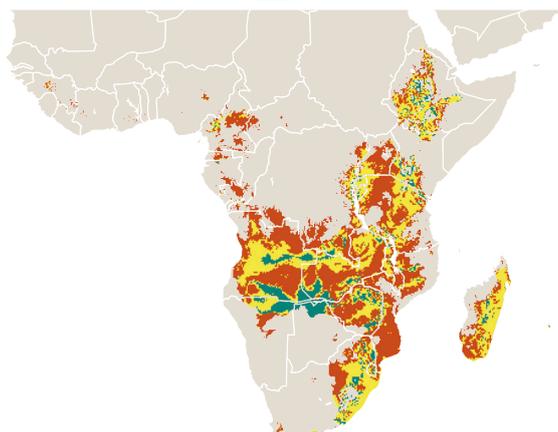
SOURCE: FAO, 2013.

Big Facts on Climate Impacts

As the impacts of climate change intensify, poor smallholder farmers will be among the hardest hit. But what those impacts will be and how farmers can adapt varies tremendously from region to region. While Africa faces decreases in crop productivity and changing suitability of farmlands, for Asia an onslaught of floods and cyclones is more likely.

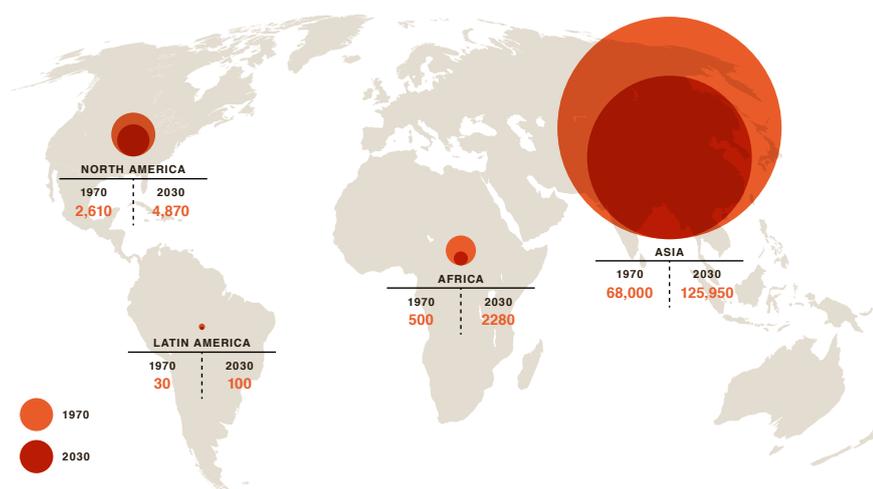
CLIMATE IMPACT ON BEAN PRODUCTION IN SUB-SAHARAN AFRICA

LOSS NO CHANGE INCREASE



SOURCE: CIAT, 2013

EXPOSURE TO CYCLONES, THOUSANDS OF PEOPLE PER YEAR



SOURCE: Alexandratos & Bruinsma, 2012

Big Facts on Adaptation

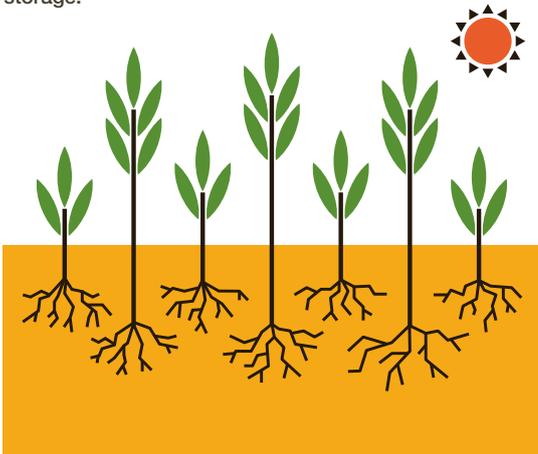
Thankfully, adaptation options focused on local conditions already exist and are constantly improving as scientists and farmers move forward together. Often, it is the simple things that will help us adapt. In India, for instance, text message weather updates are helping farmers to make improved decisions about when to plant and harvest. Small and simple changes like this can have a huge impact on food security.

Big Facts on Mitigation

Agriculture also offers huge opportunities to reduce greenhouse gas emissions. Many of the most useful improvements to food systems help farmers to adapt to climate change and to mitigate their emissions while improving livelihoods and increasing food security – all at the same time.

MITIGATION

In South Asia, better cropland management and agronomy practices can increase yields and soil carbon storage.



SOURCE: Smith et al., 2008

Get all these facts and more at <http://ccafs.cgiar.org/bigfacts>

SIMPLE ADAPTATION STRATEGIES MAKE A BIG IMPACT

Simple adaptation strategies could offset crop yield changes caused by climate change.



SOURCE: Perry et al., 2007

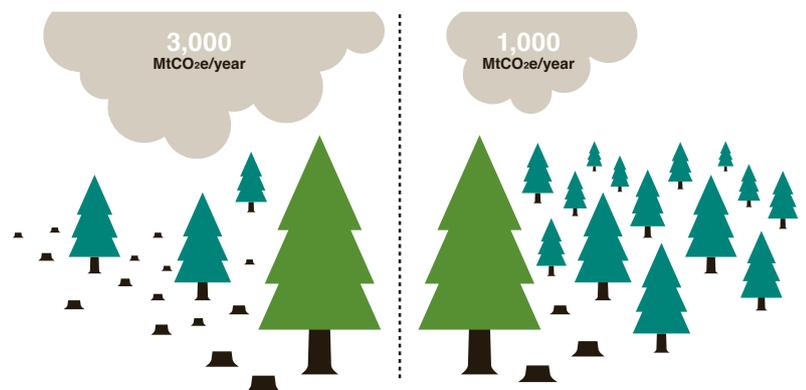
EMISSIONS

Agriculture is responsible for **75% OF GLOBAL DEFORESTATION**.



If trends continue, **ABOUT 10 MILLION km² OF LAND** will likely be cleared by 2050 to meet food demand.

Alternative pathways would only require **ABOUT 2 MILLION km² OF LAND** be cleared.



SOURCE: Blaser & Robledo, 2007; Tilman et al., 2011



About CCAFS

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world's best researchers in agricultural science, development research, climate science and earth system science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. www.ccafs.cgiar.org

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