European Commission

SMART AGRICULTURE FOR CLIMATE

EU GCCA+ The Alliance for a changing world

#GCCAPlus #EUClimateAction #EUGreenDeal

2021

KEY ISSUES

By 2050, the world population will grow to an estimated **9 billion people**. Agricultural production will need to continue sustaining the **global needs for food, energy and fibre**. Yet, modern agriculture is already a driver and a victim of climate change, pushing both its outputs and environmental impacts to unprecedented limits. On one hand, **agriculture is responsible** for almost 30% of global greenhouse gas (GHG) emissions, 75% of global deforestation, and about 70% of freshwater use. On the other, **climate change is impacting** the natural capital and processes needed for agricultural production. Both question the suitability of resource intensive practices.

Climate Smart Agriculture (CSA) is therefore a **"triple win"**: increasing agricultural sustainability, strengthening **resilience to climate change**, and reducing the **contribution of agriculture to global warming**. A fourth win is reducing "climate-crazy" food systems associated with about a third of the food produced being either lost or wasted, leading to food insecurity for some while unhealthy consumptions habits trigger obesity and diabetes for others.

EU GCCA+ LESSONS LEARNING

In the **Global Climate Change Alliance Plus** (EU GCCA+) global portfolio, 44 projects (about exactly half of the portfolio) target Climate Smart Agriculture. GCCA+ climate action over four continents has contributed to introducing climate smart practices like **agroforestry, agroecological approaches, water management** (i.e. drip irrigation), **use of adapted varieties** (i.e. drought tolerant crops, resistant to diseases, with shorter lifecycle, etc.).

From the **sustainable eco-villages** in Tanzania, to the climate smart village of Belle Mare in Mauritius, **tree nurseries** in Ethiopia, **agro-forestry practices** in Timor Leste or in Tuvalu, **solar powered irrigation** systems in Chad or **farmer field schools** in Malawi, EU GCCA projects have addressed environment- and climate-related risks contributing to reduce GHG emissions, protecting biodiversity and combating desertification. Farmer field schools in many countries, as well as **community involvement** pay attention to the social dimension and benefits to small-scale farmers.

"Sustainability Oscar" to EU GCCA+ Tuvalu

The EU-funded Global Climate Change Alliance Pacific Small Island States Project in Tuvalu (GCCA PSIS) is listed among the 300 World Best Practices on Sustainability and Innovations in the 5th edition of the Global Entreps Awards, the 'Oscar Awards' to Sustainability.

The project concentrates on improving agroforestry systems to enhance food security and build resilience to climate change in Tuvalu. It has set up three agroforestry demonstration sites and home gardens on all islands between 2012 and 2015. The agroforestry sites trialed crop varieties from around Tuvalu and from the SPC's Centre for Pacific Crops and Trees (CePaCT) climate-resilient crop collection.

See the full story on **gcca.eu/stories**

The islands of Tuvalu. Photo © EU GCCA+ LoCal UNCDF photo Hendrick Visser

THE GLOBAL CONTEXT

EU commitment for CSA

The **New European Consensus on Development** (EC, 2017) highlights sustainable agriculture as one of the main sectors for support to inclusive and sustainable growth. With the **Comprehensive Strategy with Africa** (2020), the EU and African countries propose to join efforts to reach zero hunger (**SDG2**) by boosting safe and sustainable agri-food systems. Other policies include **Enhancing maternal and child nutrition in external assistance** (EC, 2013).

In the context of the **EU Green Deal** and its **Farm to Fork Strategy** (2020), the EU will support the global transition to sustainable agri-food systems, supporting CSA through agro-ecological approaches.

EU international cooperation support also includes food research and innovation (for example through **Horizon 2020**), with particular reference to climate change adaptation and mitigation, to develop integrated responses benefiting people, nature and economic growth.

DeSIRA (Development Smart Innovation through Research in Agriculture) is the EU initiative contributing to climate-relevant, sustainable transformation of agriculture and food systems in low and middle-income countries, through more science and innovation.

International Developments

International **financing in agriculture already targets climate** adaption and mitigation (e.g., 52% for the World Bank in 2020), with many donors such as FAO or the World Bank foreseeing some degree of scaling-up in their future programmes.

Research being at the heart of innovation for CSA, the **Consultative Group on International Agricultural Research** (CGIAR) developed CSA country profiles to give an overview of the agricultural challenges and solutions in countries around the world.

It is mostly acknowledged that CSA:

- is driven by a place-based, local analysis;
- goes beyond farming technologies and looks at the coherence of food systems, use of landscapes, pressure and benefits of value chains;
- addresses the overall social dimensions of agriculture, including poverty and food security;
- engages with marginalised groups and women.

EU GCCA/GCCA+ AND CLIMATE SMART AGRICULTURE

44 projects   **57** countries   **50%** of GCCA/GCCA+ portfolio   **329** million euros

Common CSA practices

- Organic fertilisation
- Reducing forest conversion
- Agroforestry
- Hedging (wind control)
- Weed control
- Sustainable crop intensification
- Improved storage
- Water management
- Drip irrigation
- Drought tolerant crops
- Early maturing varieties
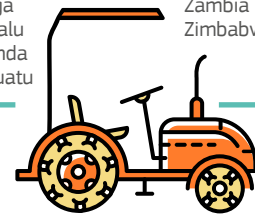- Mulching

Main countries of intervention

Bangladesh	Marshall Islands
Belize	Mauritania
Benin	Mauritius
Bhutan	Micronesia
Cambodia	Mozambique
Comoros	Myanmar
Cook Islands	Nauru
Cuba	Nepal
Djibouti	Niger
Dominican Republic	Niue
Ethiopia	Palau
Fiji	STP
The Gambia	Suriname
Ghana	Tanzania
Haiti	Tchad
Kiribati	Timor Leste
Lao PDR	Tonga
Lesotho	Tuvalu
Malawi	Uganda
Mali	Vanuatu

DeSIRA

17 additional countries:

Brazil
Cameroon
Colombia
Costa Rica
DRC
El Salvador
Guatemala
Honduras
Madagascar
Mongolia
Nicaragua
Nigeria
Panama
Uzbekistan
Vietnam
Zambia
Zimbabwe

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GCCA+
THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE

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