

Special Report on Climate Change and Land Food Security Findings

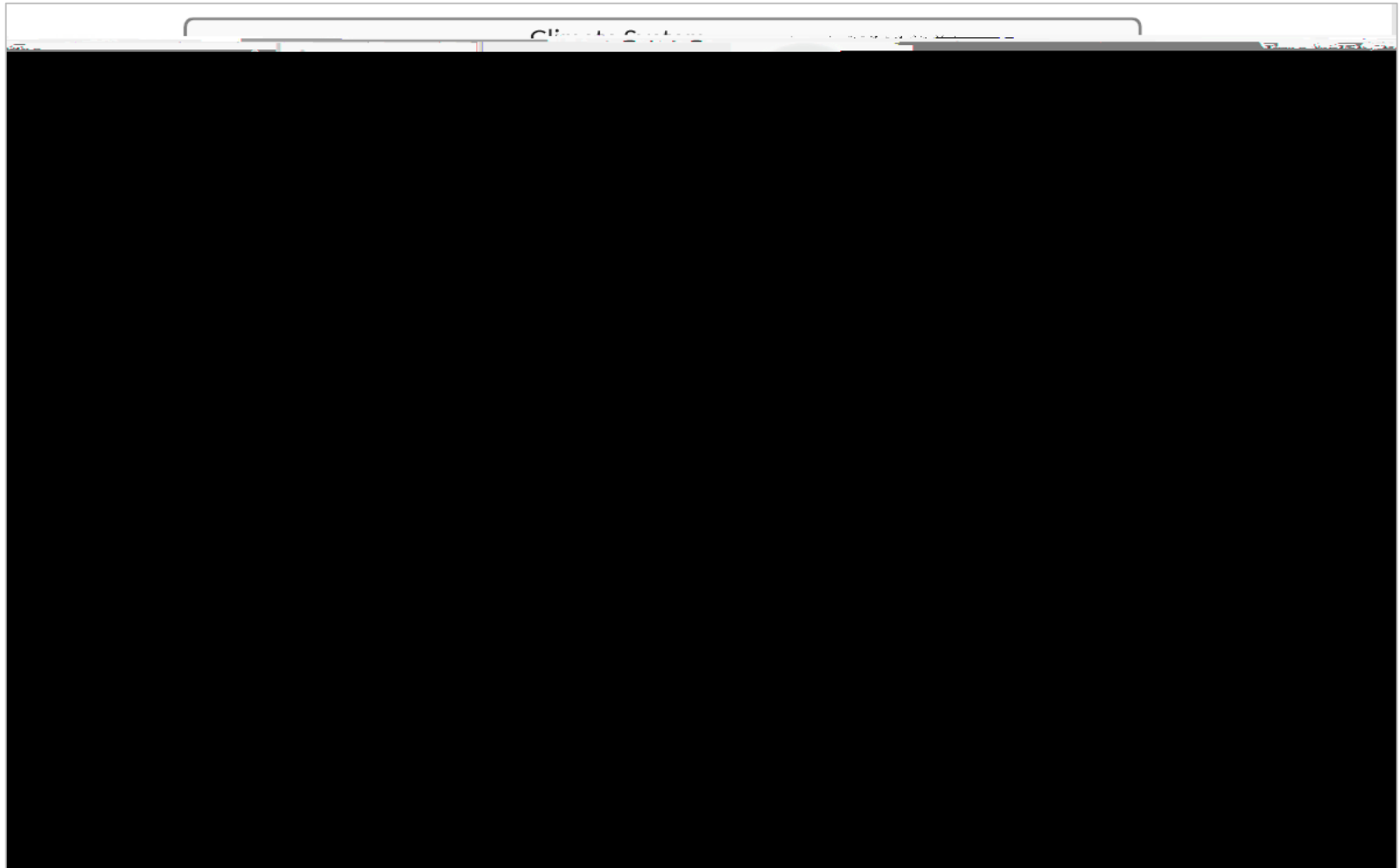
Agricultural landscape between Ankara and Hattusha, Anatolia, Turkey (40°00' N – 33°35' E)
©Yann Arthus-Bertrand | www.yannarthusbertrand.org

ipcc
INTERGOVERNMENTAL PANEL ON climate change



www.ipcc.ch/report/SRCCL

The Food System



iooo

21-37% of all anthropogenic emissions from food systems [A3.6]

Climate change creates additional stresses on the food systems [A5]

Projected to increase by about 30–40% by 2050 [A3.6]

At 2°C the risk of food system instability is very high [A5.1]

Integrated supply- and demand-side options can be scaled up in all segments of the food system to advance adaptation and mitigation climate responses [A5.1]

Diversification in the food system can reduce risks from climate change [B6.2]

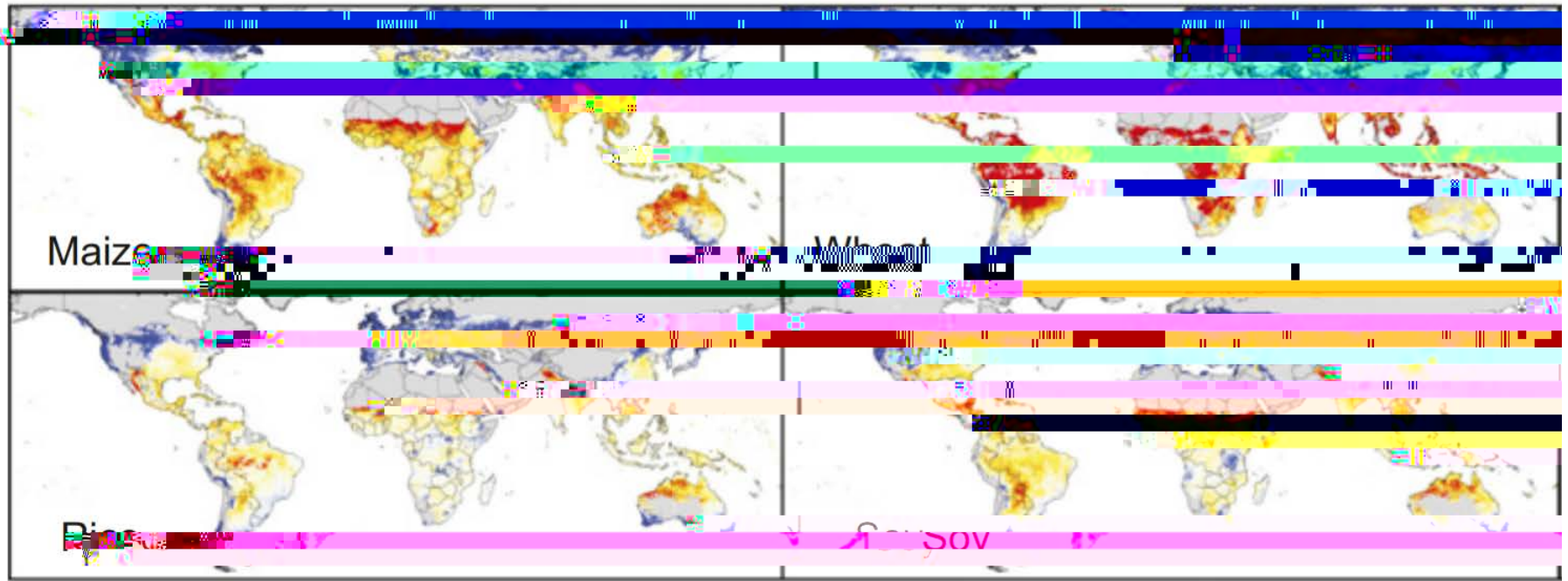
Importance of integrated supply- and demand-side options can be scaled up in all segments of the food system to advance adaptation and mitigation climate responses



iooo

Food System Vulnerabilities - Projected

GGCMs with explicit N stress



Rosenzweig et al., 2014

Hatched areas indicate
>70% model agreement

RCP8.5

2080s

median of 4 GGCMs and 5 GCMs/AgMIP led agricultural contribution to ISIMIP

Lower latitudes: more vulnerable to climate change, especially under N stress

Mid- and high-latitudes: small benefits at moderate-to-medium Temp increase (1-3 C)

Definition: The decrease in quantity or quality of food. Food waste is part of food loss and refers to discarding or alternative (non-food) use of food that is safe and nutritious for human

Food System Instability

Stability of food supply is expected to decrease (→ Extreme events, trade

Articles assessed: 22

Transition to high risk: particularly for food import reliant countries and regions

Linkages: GDP, price spikes, social tension, poverty, migration

Threshold Guidelines:

Moderate (**yellow**): up to 1 million people

High (**red**): up to 100 million people

Very High (**purple**): more than 100 million people

