# SUPPORTING CLIMATE CHANGE ADAPTATION IN THE TROPICAL FRUIT SECTOR

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Climate change is resulting in severe impacts on ecosystems, societies and infrastructure globally. Agriculture, particularly in developing countries, is bearing the brunt of the consequences (IPCC, 2022; FAO, 2018a). The tropical fruit sector is increasingly susceptible to the effects of climate change, including rising temperatures, rainfall variability, extreme weather events and pest outbreaks. This vulnerability is exacerbated by the lengthy period needed for perennial fruit crops to adapt to changing weather conditions (Bhattacharjee et al., 2022). From a social perspective, climate change disproportionately impacts agriculture-reliant communities and smallholder farmers, increasing the risks of poverty, food insecurity and malnutrition (FAO, 2022b).

Therefore, climate change adaptation (CCA) is urgently needed to safeguard tropical fruit production and the livelihoods of those relying on these value chains. CCA involves adjusting production systems to actual and expected changes in climate and the effects of those changes. By doing so, CCA also contributes to mitigating the drivers of climate change. A suite of practices including climate-smart agriculture, precision agriculture and agroecology can help address climate risks facing the tropical fruit sector. The adoption of these practices supports producers' needs to adapt, while enhancing the resilience and profitability of agrifood systems.

The FAO-led Responsible Fruits Project is committed to supporting tropical fruit producers and exporters to adapt to climate change. The project has produced two technical guides on climate change adaptation, one each for the pineapple and avocado sectors. These guides offer in-depth insights into current and projected climate change impacts on major producing and exporting countries and outline various adaptation practices supporting the continuity of production and trade of the two commodities. The project has developed a tool to measure carbon and water footprints in the pineapple industry. This tool will help producers identify emissions and water impacts in their production systems and provide recommendations to mitigate the impacts, including cost saving opportunities through improved efficiency.

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