

عنوان مقاله:

Climate change impacts, adaptation and mitigation in the agricultural sector

محل انتشار:

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خلاصه مقاله:

The current study provides a comprehensive analysis of climate change adaptation and mitigation in Indonesia's agricultural industry, addressing a significant research gap. By classifying approaches into ecological, economic, and social aspects, it presents valuable information for decision-makers and industry professionals. The review reveals an increasing interest in climate change adaptation and mitigation research between ۲۰۱۶ and ۲۰۲۱, with a subsequent decrease from ۲۰۲۱ to ۲۰۲۳. The majority of research is centered on crop farming, accounting for ۶۰ percent of the studies conducted. The primary areas of study are concentrated in Java, which is a crucial region for crop production, making up ۴۶ percent of the research locations. The sub-sectors examined include crop farming and fisheries. Ecological adaptation in crop farming involves technology adoption, intensive farming management, environmentally friendly agriculture, cropping pattern and timing adjustments, water management, superior varieties, and crop diversification. Within the realm of fisheries, ecological adaptation involves embracing new technology, modifying fishing schedules, and shifting fishing locations. Economic adaptation strategies encompass household consumption reduction, access to credit and insurance, livelihood diversification, asset selling, and savings utilization. Social adaptation encompasses utilizing indigenous knowledge, enhancing interpersonal connections, and supporting agricultural or fishing communities. The study delves into socioeconomic factors influencing adaptation and mitigation to climate change impacts, including individual characteristics, resource access, and institutional involvement. Farmers' ability to adapt is greatly influenced by factors such as gender, education, and access to resources. It is important to consider that while adapting and mitigating climate change may involve temporary drawbacks like decreased productivity and initial financial burdens, the long-term advantages for small-scale farmers are substantial, including improved well-being and increased resilience. This study aids in identifying adaptation and mitigation strategies to guide farmers and policymakers in reducing risks and building resilience within the agricultural system. Limitations in Indonesian studies, particularly outside Java, and the focus on fisheries and livestock sub-sectors provide opportunities for further research. It enhances the academic impact on the progression of knowledge growth in the field of climate change adaptation and ... mitigation within the agricultu

کلمات کلیدی:

Adaptation and Mitigation, Agricultural sector, Climate change, Indonesia, Preferred reporting items for systematic reviews and meta-analyses (PRISMA),
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