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## Strengthening local government and community resilience to address climate change impact in Indonesia

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At national level, Indonesian government is already paid a serious action to climate change issue. However, for local government and local community this issue is not widely understood. The warming of temperature and changing of rainfall patterns is increasing the risk of climate hazard for agriculture sector and making farmers more suffer. Therefore, the awareness of the local government on climate resilience of the rural communities is necessary. In this study, to increase adaptive capacity to cope with the potential impacts of climate change, we introduced climate-driven agricultural management strategies and designed recommended adaptation options for agricultural management that should be mainstreamed into local development plan, with case study at Subang District, as main production region of rice in West Java, Indonesia. Recommended adaptations were constructed based on climate profile and the impacts of current and future climate on crop production that analyzed using vulnerability and risk assessment. Climate variability analysis revealed that El Nino event could reduce rainfall by up to 18 percent from normal. Future climate shown the potential changing of rainfall pattern on main production region that increase level of drought hazard. Furthermore, the risk assessment result showed that high-risk areas are in the main region of agricultural production of rice, and the potential of risk increases with climate change. Based on the current and future climate challenges, local government should designed recommended adaptation option focused on strategy to manage water resources for agriculture, selected precise planting date to increase rice productivity and reduce the risk of climate change impact. We also proposed the local climate team to disseminate climate resilience more effectively. These result suggest that understanding of local government on climate profile, future climate and the climate change risk could be fundamental to increase adaptive capacity to cope with the potential impacts of climate change.

### Biography

Yon Sugiarto is a lecturer at Department of Geophysics and Meteorology, Bogor Agricultural University, Indonesia. He has his expertise in climate change adaptation and disaster risk reduction (CCA-DRR). Since 2009 to 2015, he worked with Adaption Division of Indonesia National Council on Climate Change (DNPI) and responsible for conducted climate change vulnerability and risk assessment. In addition to teaching on campus, he has also worked with UNDP to strengthen community resilience and local government in East Java and East Nusa Tenggara. Currently working with Indonesia Climate Change Trust Fund (ICCTF) to develop a climate-based agricultural management strategy and also with UNICEF to develop Child Centered Climate Change Adaptation in Indonesia. Become a member for national initiatives in the convergence of Climate Change Adaptation and Disaster Risk Reduction in Indonesia.

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