



University of Kentucky
UKnowledge

International Grassland Congress Proceedings

XXI International Grassland Congress / VIII
International Rangeland Congress

Multi-Stakeholder Engagement in Savanna Management in Eastern Indonesia

Bronwyn A. Myers
Charles Darwin University, Australia

Rohan P. Fisher
Charles Darwin University, Australia

Josef Maan
Yayasan Mitra Tani Mandiri, Indonesia

Agus Rawambaku
Badan Perencana Pembangunan Daerah, Indonesia

John Asbanu
Badan Perencana Pembangunan Daerah, Indonesia

See next page for additional authors

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/23-1/13>

The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

Presenter Information

Bronwyn A. Myers, Rohan P. Fisher, Josef Maan, Agus Rawambaku, John Asbanu, and Onni Benjamin

Multi-stakeholder engagement in savanna management in eastern Indonesia

Bronwyn A. Myers, Rohan P. Fisher, Charles Darwin University, Darwin NT 0909 Australia

Josef Maan, Yayasan Mitra Tani Mandiri, Ngada, Flores, NTT, Indonesia

Agus Rawambaku, BA PPEDA East Sumba, NTT, Indonesia

John Asbanu, BA PPEDA TTS, SoE, TTS, NTT, Indonesia

Onni Benyamin, SEKBER NTT, Kupang, NTT, Indonesia

Corresponding author Bronwyn.Myers@cdu.edu.au

Key words : multi-stakeholder engagement , participatory approaches , Indonesia

Introduction Nusa Tenggara Timur (NTT) is dominated by semi-arid , fire-prone , savanna landscapes . NTT is one of the poorest provinces in Indonesia with livelihoods largely dependent on agriculture . This case study describes how improvements to land , fire and resource management in rural communities in NTT have improved livelihoods and NRM capacity , through engagement of communities , NGOs , government (district and provincial) and university researchers in action research . This multi-level , multi-agency approach aimed to bridge the potential gap between top-down and bottom-up approaches (Lovell *et al.* 2002) .

Methods Sites are village communities in the NTT districts of Ngada (central Flores) , East Sumba and South Central Timor (West Timor) . Activities from 2002 to 2005 focused on fire management and livelihoods in East Sumba and Ngada (funded by Australian Centre for International Agricultural Research , ACIAR) , including (i) Participatory Rural Appraisal and Forest Resource Inventories (ii) Strategic burning for wildfire mitigation by communities with district government support , and (iii) Fire monitoring using satellite imagery and ground validation . Subsequent activities from 2006 to 2008 are focused on capacity building in natural resource management (funded by AusAID Public Sector Linkage Program , PSLP) , including (i) Senior managers study tours to northern Australia , (ii) GIS training and mentoring in Indonesia and work attachments in northern Australia , and (iii) Community cross visits and community training in agroforestry enterprises and burning . Effectiveness of programs has been evaluated by questionnaires , open interviews questions and mapping and monitoring .

Results Household livelihoods in savanna sites in East Sumba and Ngada are dominated by food crops , forest products and small livestock . Although forests are confined to protected valleys , forest resources are important , especially at the end of the dry season ("hungry season") . Wildfires in grasslands occur frequently through the dry season and are most common and extensive in the late dry season . The strategic burning by communities developed in the project study sites have been implemented for protection of agroforestry plots , gardens and houses from damage by wildfires . Government (District and Provincial) and NGO officers have increased skills in mapping and monitoring land use and fires and incorporating these data into GIS . Senior government officials are aware of GIS as a planning tool and support staff gaining skills and developing GIS . The projects have developed several indicators of sustainability of improved management practices , notably :

- Training in strategic burning skills extended to more villages in Flores and Sumba
- Development of agroforestry enterprises and burning practices in communities neighbouring original study sites
- Incorporation of mapping and GIS into District and Provincial activities , with budgetary commitments (e.g . critical land assessment in catchment management in Ngada)
- Creation of spatial sciences group in Ngada
- Indonesian partners identifying new applications (e.g . infrastructure and service delivery) for GIS

Conclusions Multi-level engagement has promoted effective uptake of improved management practices in rural communities in savanna landscapes of eastern Indonesia . Top-down large scale planning and resource allocation complements bottom-up , community-driven changes to land and fire management practices . Effectiveness in terms of land use changes and increases in capacity of regional Indonesian partner agencies in natural resource management are measured . Other evaluations of impacts are being assessed within a livelihoods framework .

References

- Fisher , R . , Bobanuba , E.W . , Rawambaku , A . , Hill , G.J.E . & Russell-Smith , J . (2006) . Remote sensing of fire regimes in semi-arid Nusa Tenggara Timur , eastern Indonesia : patterns and prospects . *International Journal of Wildland Fire* , 15 , 307-317 .
- Lovell , C . , Mandondo , A . & Moriarty , P (2002) . The question of scale in integrated natural resource management Conservation Ecology 5 , 25 URL :<http://www.consecol.org/vol5/iss2/art25>
- Russell-Smith , J . , Djoeroemana , S . , Maan , J . & Pandanga , P . (2006) . Rural livelihoods and burning practices in savanna landscapes of Nusa Tenggara Timur , eastern Indonesia . *Human Ecology* , 35 , 345-359 .