

Meeting Notes

One-day Workshop - Ngada Flores

Title : Fire Management of Grassland, Savannah, and Forest in Ngada Flores - East Nusa Tenggara Province, Indonesia
Time : 14 October 2004 (10.00 am - 4.45 pm)
Place : Seminar Room of Regency Secretariat Office, Ngada

Opening (10.00 - 10.30am)

1. **Audio Visual Presentation of Fire Fighting in South East Asia, Yayat Ruchiat-CIFOR**, while waiting for workshop participants to arrive.
2. **Report of the Organizing Committee, Tanto, BAPPEDA**
 - This workshop was initiated by the Regional Planning and Development Agency (BAPPEDA) of Ngada District as a response to the handling of the problem of grassland, savannah and forest fires in Ngada.
 - The workshop took place over one day on 14 October 2004 from 10:00 am to 4:45 pm (Central Indonesian Time) in the Seminar Room of Ngada Regency Secretariat Office with the theme of Fire Management in Fighting Grassland, Savannah and Forest Fires in Ngada District, Flores, East Nusa Tenggara.
 - The objective of the workshop was to:
 - Initiate a discussion on grassland, savannah and forest fires in Ngada based on the perspective, knowledge and experience of various stakeholders;
 - Come to a common understanding about definitions of grassland/savannah and forest fires as to their cause and effect.
 - The workshop was attended by 30 participants (out of 60 invitations) from four stakeholder groups:
 - Ngada District Government officials including: eight (8) government technical divisions; namely, the Forestry Office, Kesbanglinmas (National Unity and Community Protection), the Community Guidance Agency, the Agriculture Office, the Plantations Office, the Livestock Office, BAPEDALDA and Pamong Praja Police, as well as one non-technical governmental agency; namely, BAPPEDA (which was the convener of the workshop). Among government divisions not in attendance were the Legal Division.
 - Non-government organizations, represented by Yayasan Mitra Tani Mandiri.
 - International research institutes, represented by two organizations: ACIAR Fire Management Project and CIFOR.
 - The community represented by all sub-districts in Ngada District as well as 4 FDGs from the research location in the villages of Dhereisa and Raja-Dorameli.
 - Expenses for convening the workshop were taken from the budget of BAPPEDA (Ngada District), CIFOR and ACIAR Fire Management.
3. **Speech of the Deputy Chief of Ngada District**
 - Bushfires are a natural occurrence in Ngada whose existence cannot be denied.
 - Among the effects of this has been a decrease in forest coverage (both from the clearing of new agricultural land and from illegal logging) and a decrease in the supply of ground water.
 - Grasslands are at risk of burning.
 - Among the causes of fires in Ngada are:
 - Illegal logging that opens up the land and denudes it of forest;
 - Preparation of extensive shifting agricultural land;
 - Provision of new grass to feed livestock;
 - The custom of traditional hunting each year prior to the preparation of agricultural land;
 - Cigarette butts disposed of along the roadsides.
 - Communal and customary measures have already been undertaken, such as the Traditional Oath. These are quite expensive, but have not proved effective despite the fact that such traditional ceremonies prohibit burning. Sanctions put in place are not implemented and it is difficult to catch wrongdoers.
 - Community behavior is the key to effective fire management.
 - Knowledge about nature is very important and should be addressed as early as possible in a child's education.

- Many thanks to ACIAR for conducting the research and workshop on fire management in Ngada. It is hoped that this will open a valuable dialogue and offer further knowledge for Ngada District and the communities living here.

4. Speech of the Head of BAPPEDA in Ngada District, represented by the Head of the Planning Division

- Ngada catchments area is within the Aisena watercourse that in turn is within the Aimau watercourse.
- Proper management of this region is important to sustain life in Ngada.
- We need to recognize the importance of the fire problem.
- Small-scale fires are a friend to man, but on a large-scale they can bring disaster.
- The viewpoints of various parties, such as government agencies, NGOs, and the general community concerning fires in Ngada are all valuable input for our future efforts in fighting bushfires.
- Bushfires can be reduced or even eradicated if proper burn-off techniques are used and alternatives sought.
- Accidentally and deliberately lit fires frequently occur in empty fields. An example of an accidental fire was one that occurred in Riung because of some iron ore.
- Bushfire patterns in Ngada indicate that once a field has been burnt, it will burn again at another time or the following year.
- Fire control can be assisted through natural or artificial firebreaks. A natural firebreak could be a river and artificial firebreaks may also be created through intensive management.
- The problem of bushfires in Ngada cannot be overcome by one sector working alone; it must be worked on comprehensively by all sectors.
- The Ngada District Government has shown that it does not yet really care about the bushfire problem. This can be seen from the failure of many invitees to attend this workshop. Many sectors do not yet regard this workshop as important.
- Not merely in respect of bushfires, but also in relation to the development of Ngada, human resources in Ngada District have to greatly develop their knowledge and experience.
- Although not all invitees have attended, we should use this workshop as the perfect opportunity to share our knowledge, experiences and thoughts about the problem of bushfires in Ngada.

5. A General Overview of the Bushfire Problem in Indonesia, Yayat Ruchiat-CIFOR

Session I: Bushfires in Ngada based on the Findings of the Fire Management Research Project - ACIAR and the Perspective of Technical Government Agencies, Village/Sub-District Representatives, and NGOs (11.00am - 3.15pm)

1. Presentation of Research Findings

- The ACIAR - NTT Fire Management Project in Ngada District, Josef Maan-Field Team Leader
- Fires in Ngada based on a socio-economic study, Justinus Depa
- Fires in Ngada based on a Remote Sensing/GIS study, Wilfrida Erlinda B. R.
- Fires in Ngada based on a bio-physical study, Fransiska Rengo

2. The Perspective of Technical Government Agencies, Village/Sub-District Representatives, and NGOs

- **Kesbanglinmas (National Unity and Community Protection)**

Presentation summary and recommendations:

- Kesbanglinmas is the agency responsible for disaster management as one of its primary tasks. Once a fire has disturbed humans, taken human life, or destroyed property, settlements, the environment and infrastructure, then it can be said to be a disaster.
- Based on Bakornas Decree No. 121, Kesbanglinmas must coordinate with various parties and government agencies in undertaking three (3) measures to contain disasters:
 - a. Preventative measures in respect of disaster management, reducing risk and protecting lives;
 - b. Coercive measures;
 - c. Rehabilitation and reconstruction.

- Preventative measures are proven to be more effective than coercive measures. Coercive actions are taken only once the disaster has occurred and the results are usually neither very effective nor advantageous.
 - There is still no *Satlak* (Field Implementation Unit) in place to fight fires from the point-of-view of the physical environment.
 - Disasters occur due to human negligence because God has created the universe in a perfect manner for humanity.
 - Traditional hunting is one of the causes of bushfires.
 - In the view of Kesbanglinmas, fires have more negative impacts [than positive ones - trans.].
 - There is not a day in Ngada without fires, especially from July to October. Fires occur not just in fields, but also in towns and in forests.
 - Fires often occur through negligence and a deliberate lack of responsibility as well as from the excuse of the need to create access.
 - In fighting bushfires, we need coordination between all relevant agencies and unified utilization of human resources so as to create a sustainable synergetic approach. There needs to be effective integration.
 - There is insufficient concern from all parties, especially the government, in respect of fires. This is related to a lack of financial resources.
 - National regulations for the creation of disaster control posts have not proven to be effective.
 - Local policies, such as the Traditional Oath, have not yet proven effective in their implementation. These tend just to be ceremonial. Traditional ceremonies are no longer genuine, as can be seen in Soa and Riung Barat.
 - It is better to conduct awareness campaigns than traditional ceremonies.
 - Changes in political policies have had an influence. The previous District Chief (Bupati) had a program for dealing with fires, but the current District Chief does not.
 - The ACIAR Fire Management research cannot unequivocally state that fires are a disaster.
 - The following are several recommendations that need to be put in place:
 - a. There needs to be a study undertaken into the benefits that local communities derive from fires and burn-offs.
 - b. Information [provision - trans.] and coordination should not just be undertaken by NGOs, but BAPPEDA should also coordinate fire management programs.
 - c. Preventative and coercive fire-fighting training should be undertaken.
 - d. A Disaster Management Rapid Reaction Team (*TRC*) (including fire management) should be formed in each region from the village to sub-district level.
 - e. Information about fires needs to be coordinated among all parties.
 - f. Intensive assistance is needed rather than just project-based work.
 - Fires are still viewed as a normal occurrence.
 - If fires are categorized as disasters, then this allows for preventative and coercive actions to be undertaken by the disaster management *Satlak* (Field Implementation Unit) of the regional government.
- **Livestock Office**
- Presentation summary and recommendations:*
- At the current time, the livestock sector views fires as effective and advantageous for the livestock industry.
 - In the local context, fires can be used to create stock feed.
 - Fires do often occur in grazing fields that are also generally used for hunting.
 - It is only once fires get out of control that they become a problem.
 - Continuous burn-offs, of course, can also have a negative impact, such as with the decline in grasses that can be used to feed livestock and an increase in *Cromolena odorata* (*Wonga Bhara* or *Rumput Sensus*).
 - There is some research showing that *C. odorata* contains high protein that is advantageous as cattle stock feed. This will be researched further by the livestock sector.
 - The following are several suggestions for tackling fires:
 - a. Allocate land for hunting so that burn-offs that are hard to control, prohibited and/or best avoided are only concentrated in these areas.
 - b. Make rules for controlled and concentrated burn-offs stricter.
 - c. Make breakthroughs in the supply of stock feed with respect to 'wet and dry stock feed preservation' for stock feed needs during the dry season. Such breakthroughs will reduce or even stop fires caused by the livestock industry.

- d. Fire management is an absolute (necessity - trans.), requiring training and publicizing of skills in proper fire management.
 - e. Integrated vegetable gardens with legumes that are fire-resistant.
 - f. Breakthroughs are needed in stock grazing management best practices that can be applied by the community.
- **Forestry Office**
Presentation summary and recommendations:
 - The forestry sector takes into account forest and grassland fires that occur both within and outside forest zones, because this issue must be managed in its entirety given its interdependence. The Forestry Office is responsible for conducting comprehensive fire safety [procedures - trans.].
 - Forestry Office Fire Data:
 - a. 561 hectares of forest and 582 hectares of fields have been burnt out of a total forest zone area of 12,981 hectares in Ngada District.
 - b. Fields that have been burnt account for three-quarters of Madang land in Ngada District.
 - Factors causing fires include:
 - a. *Nature:*
 - El-Nino
 - Friction of wood on rock during the dry season
 - b. *Human:*
 - Land clearance
 - Livestock grazing
 - Land preparation
 - Negligence
 - Settlement of forest zones
 - Lack of coordination with the authorities or other parties during burn-offs
 - Failing to extinguish campfires
 - Social motives: revenge, expressions of disappointment and just 'playing around'.
 - Initiatives undertaken by the Forestry Office include:
 - a. Firebreaks (planting fire-resistant plants);
 - b. Publicizing forestry regulations;
 - c. Seeding assistance programs;
 - d. Education through the media, pamphlets, radio etc;
 - e. Making fire danger signs;
 - f. Routine patrols by *KRPH* (forestry administration chiefs) and *Polhut* (Forestry Police), although offenders have not been tracked down;
 - g. Guiding the community in making 'Traditional Oaths' for the implementation of customary law;
 - h. Establishing and guiding organizations at the village level around forests to manage fires;
 - i. Increasing regional control and community participation;
 - j. Education on increasing community participation;
 - k. Conducting fire management training;
 - l. Establishing firebreaks in locations that are prone to fires.
- **Agricultural Office**
Presentation summary and recommendations:
 - Fires damage topsoil as a medium for plant growth.
 - Fires restrict the earth's pores making it harder to absorb water.
 - Ground water storage deteriorates if there is frequent burning.
 - Fires are generally caused by grazing activities in respect of the supply of stock feed, the killing of vermin (insect and parasites that can kill livestock), traditional hunting, and the opening up of new agricultural lands.
 - Burn-offs for agricultural purposes generally take the form of slash and burn.
 - Fires disrupt agricultural activities, burning down fences around the fields so that livestock can get in and eat the crops.
 - The only action taken by the agricultural sector is to increase fertility through land terracing and conservation programs.
- **Plantations Office**
Presentation summary and recommendations:

- Plantations are one of the casualties of bushfires that usually originate from outside the plantation.
 - Causes of fires include:
 - a. Low levels of community awareness;
 - b. Social resentment;
 - c. Traditional hunting;
 - d. Plentiful un-utilized potential land.
 - The key is to make full use of un-utilized land. This is proven as in the case of Ruing and its coconut project, initiated in 1996, on land which previously often experienced bushfires before it was fully utilized.
 - Other evidence of utilization of unused land as a way to tackle bushfires is the IFAD project in Totomala involving the planting of cashew fruit. After the cashew fruit grew and was processed, there were no more fires.
 - Efforts undertaken by the Plantations sector include:
 - a. Intensive assistance and guidance;
 - b. Plant seeding assistance for land in a critical condition;
 - c. Seeding assistance for auxiliary crops.
- **Bapedalda**
Presentation summary and recommendations:
 - Burn-offs leading to bushfires in Ngada are difficult to regulate because they have become part of the culture and customs engrained in society.
 - Control measures have already been undertaken ranging from education to law enforcement and other preventative and coercive measures, but burn-offs continue.
 - It is clear that fires in Ngada are caused by:
 - a. Traditional hunting every year from May to September;
 - b. Irresponsible 'playing around';
 - c. Low levels of awareness and obedience;
 - d. A tendency toward conflict; 'if we do not burn, we will get burnt'.
 - **Working Groups (FGDs); represented by Village Head of Dhereisa**
 - In our opinion, 'burn-offs are good and useful'.
 - The advantages we derive from burning are a supply of stock feed and the eradication of vermin.
 - We would not be able to open up new agricultural fields if we did not conduct burn-offs.

3. Discussion Panel

- **Pamong Praja Police (POLPP)**
Question for the ACIAR Fire Management Project Research Team:
 - Are there any books and writings about research findings that could be used by relevant agencies and offices?
 - Information and statistics on fires for the local government in the form of a technical publication.
- **Head of Livestock**
Question for the ACIAR Fire Management Project Research Team:
 - We need clarification about the advantages and disadvantages of *Cromolena odorata*. Did this study conduct any further research into this topic?
- **Golewa Sub-District Chief**
Adding to and responding to the workshop discussion and recommendations:
 - The implementation of government law is very weak. The same is true of customary law, which is not effective in practice. Since the 1996 Traditional Ritual Ceremony was conducted, there has been no evidence of its success at all.
 - There is still much deliberate burning in Ngada District.
 - There is no special organization or institution to handle the problem of fires in Ngada District.

- The culture of traditional hunting based on burning the forest has been proven unproductive for development. Why does this custom have to be maintained? Just get rid of it!
 - Don't just talk about the importance of the forests, but talk about the future of the forests!
 - The government and the community never want to look at development comprehensively. They merely want to look after their individual interests.
 - The key to tackling bushfires is 'awareness' on the part of everyone, both individually and as a group.
- **Riung Sub-District Chief**
Adding to and responding to the workshop discussion and recommendations:
- Fires caused by livestock activities in connection with looking for fresh grass does not make sense!
 - The community in Ngada has a tendency to be lazy. It is not the 'land that is sleeping', but the people. Land in Ngada is actually good, has potential and is fertile. It is just that the community does not want to make use of it.
 - Fires will become less frequent if there are programs to make optimal use of the land, like intensive agriculture programs (*Demplot*) using small areas, firebreaks, and terracing.
 - The idea of 'People's Forests' with small amounts of planting is very beneficial. For example, reforestation of 100 hectares is ineffective and never successful. Why does it have to be done on such a scale? Why make it extensive when you can make it intensive? It is better to begin with a small piece of land first integrated with auxiliary crops, and once this is successful, then expand.
 - Action-orientated assistance to communities by NGOs is not just a theory; it needs to be practiced.
 - Educate the community about the effects of fires caused by negligence, especially by the roadside (e.g. cigarettes).
 - The 'traditional hunting' culture, its location and regulation needs to be reviewed, as it remains a tourist attraction as well as being a cultural asset.

Question for the ACIAR Fire Management Project Research Team:

- It is recommended that the bio-physical explanation regarding HCl and C in the earth as a result of fire be simplified.
- **Forestry Office**
Explaining the problem of integrating the coordination of bushfire management:
- There is no coordination as yet between offices/boards/agencies in respect of the problem of fires.
- **Soa Sub-District Chief**
Adding to and responding to the workshop discussion and recommendations:
- Traditional hunting is designed to eradicate vermin.
 - Tree-planting programs should take place every year.
- **Kesbanglinmas**
Responding to the discussion regarding the ways of thinking about fire-fighting:
- It is neither an institution nor a facility that is needed, but rather how fire management can be understood and become the responsibility of everyone. Fire training is already frequently undertaken and there is already fire extinguishing equipment, but even the fire engine has never functioned properly.
 - Vulnerabilities need to be removed, rather than looking for who is to blame for the fires.
 - There has been no comprehensive fire prevention training or training in the use of equipment so that all available manpower can use this equipment.
- **Josef Maan**
Responding to the discussion on livestock housed in pens:
- Based on experience and research, it is proven that the penned-livestock production is not beneficial for livestock in Ngada, or in fact anywhere in the whole of East Nusa Tenggara.

Session II: Additional Advice and Recommendations (3.45 - 4.30pm)

- **Bimas (Community Guidance)**

Adding to and responding to the workshop discussion and recommendations:

- Fires in Ngada have been an issue for a long time.
- Fire management has only touched 'top-level management' and has yet to influence community behavior.
- Do not talk too much about aspects and theories like in this research!
- It is sufficient to discuss theories in the relevant government offices and agencies. The community does not need this kind of research.
- We need education about fires and their impact and ways of managing them for the community using simple language based on facts.
- Start with the approach of concrete action in cooperation with the government.
- It will be difficult, but as government and researchers, we must do it.
- The community actually already has its own understanding and policies. They already understand the loss that fire causes. There is a cultural heritage with the traditional belief system of '*Ri'i* or *Boli* or *Napu*'. This tradition forbids the burning or disturbance of forests, except for the use of certain trees and water springs for traditional activities.
- It is not essential to do theoretical research like this; what is important is direct action in cooperation with the community.
- If this research is important, do not make half-hearted decisions and statements. This research needs to make well-founded recommendations and then we as a community will accept it.

- **Chief of Economic Affairs at BAPPEDA**

- There needs to be land distribution so that the land can be of benefit to the whole community.
- There needs to be a strengthening of institutions at the sub-district level.

- **Representative of the Community's Youth: Petrus Rani**

- Aside from being used in the livestock industry, stock feed preservation technology can be used to develop new livelihoods for the community so as to relieve pressure from fire on fields and forests.
- We need to make improvements to the rules and locations for traditional hunting because this custom is a tourist asset for Ngada District and represents a valuable inheritance from our ancestors. It will also enable the danger from fires to be contained and not spread to land which has potential agricultural use.

- **Forestry Office**

- With respect to the GIS recommendation to make a land usage model for the whole of Ngada District, it is necessary to identify basic development planning needs for each government office and agency.
- A forest inventory needs to be made in order to complete the bio-physical report.
- A policy is needed in respect of Land Management Distribution because the policy on ownership distribution cannot be put in place given the predominance of a *status quo* in land ownership in Ngada District.
- Explain the advantages and disadvantages of fires as a starting point for fire management.
- A forest inventory needs to be undertaken from vegetation to fauna. Manpower and equipment for this is greatly needed.

- **Head of BAPPEDA Planning Bureau**

- The research conducted by ACIAR will not just be put on the bookshelf, but will be used by the community of Ngada in the future.

Closing (4.30 - 4.45pm)

1. The drafting team will record the minutes of this meeting, which will then be forwarded to the Ngada District Government through the District Chief (Bupati), to the NTT Provincial Government through the Governor and provincial BAPPEDA, and to ACIAR Fire Management Project donors through CIFOR.

2. This workshop represents the inaugural meeting to discuss the problem of fires in Ngada and further meetings will take place regarding the technicalities of implementation.

Recorded on 3 August 2004 (sic.) by:

1. Yayat Ruchiat (Research Officer, Environmental Services and Sustainable Use of Forests - CIFOR)
2. Josef Maan (Field Team Leader, ACIAR Fire Management Project - Ngada Flores Site)
3. Fransiska Rengo (Field Research Assistant)
4. Justinus Depa (Field Research Assistant)
5. Wilfrida Erlinda B. R. (Field Research Assistant)
6. Tanto (Head of Planning Bureau, BAPPEDA Ngada District)