

Yap State Community Wildfire Protection Plan



Prepared by

Susan Kett, U.S. Forest Service Prescribed Fire Specialist
Miriam Morrill, U.S. Fish & Wildlife Service Wildland-Urban Interface Coordinator
Zhanfeng Liu, U.S. Forest Service GIS Annalist
Margie Falanruw, U.S. Forest Service- Institute of Pacific Island Forestry

April 19, 2011

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The Yap State Community Wildfire Protection Plan (CWPP) is a collaborative effort to improve the wildfire response and protection of community values at risk to wildfire. The contents of a CWPP must be approved by government, forestry, and fire representatives with decision-making authority at the scale and scope of the CWPP. The scope and contents of this CWPP were identified through a collaborative process between forestry, fire and community representatives. See Appendix A for a list of individuals or groups providing input into the preparation of this CWPP.

The following comprise the key approving officials for the Yap State CWPP that mutually agree on plan contents.

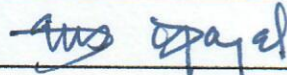
Yap State Government Representative

Name & Title Fanian Bamngin, Chief of Division of Public Safety

Signature 


Yap State Forestry Department Representative:

Name & Title Pius Liyagel, Yap State Forester

Signature 

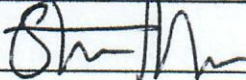
Yap State Fire Division Representative:

Name & Title John Runpong, Captain Yap State Fire and Rescue Section

Signature 

Yap Village Member Representative

Name & Title Steven Mar, Chief of Tomil,

Signature 

CWPP SCOPE & OVERSIGHT

The scope of the Yap State CWPP is to provide a forum for collaborative community-based fire management strategies and enhance funding and technical assistance opportunities that are aimed at protecting village assets and values at risk to wildfire. The primary goal of the CWPP is to protect human life including the dwellings and critical infrastructure utilized such as schools and medical facilities, but also protecting village food and water supplies, cultural practices, and ecosystem values tied to forested areas.

The CWPP planning area has been identified as the entire island due to the fire and forestry management scope and involvement as well as the interconnectivity of village values throughout the forest and watershed areas. The Yap State CWPP will provide a programmatic planning strategy for enhancing overall firefighting capabilities, developing landscape partnerships and funding strategies, and adapting and adopting individual villages risk assessments that focus on specific fire protection, vegetation management and fire prevention education activities.

The oversight and coordination of the CWPP is provided by a Core Team. The Core Team is comprised of representatives from the Yap State Forestry Department, Division of Public Safety Fire Section and concerned/ representative village members. These village representatives are participating on behalf of their village and a network of other village leadership representatives; relaying critical information to families and village members about the CWPP process and community involvement. The Core Team will coordinate and facilitate CWPP strategies and priorities with partners and stakeholders. See the following section on Collaboration and Annual Planning for a description of Core Team member roles and a description of collaborative planning, prioritization and decision-making processes.

Wildland-Urban Interface Considerations

A key component of a CWPP is to identify the wildland-urban interface (WUI) areas where community values and assets are most at risk to the effects of wildfire. The U.S. Department of Interior and U.S. Department of Agriculture define the WUI as areas where human habitation and development meet or are intermixed with wildland vegetation (fuels). The CWPP process is utilized to specify and define the WUI boundary areas and incorporate area risk assessments to help in annual project prioritization and planning efforts.

The Yap State CWPP includes a collaborative process to delineate and update wildland urban interfaces (WUI) areas in order to assist the CWPP Core Team and stakeholders in the process of prioritizing fire management strategies that protect community values at risk to wildfire. There are over a hundred villages dispersed throughout the island. The villages with a higher percentage of dwellings and infrastructure adjacent or intermixed with *teid* (savanna) vegetation will be ranked as a higher risk to wildfire. During the initial development phase of the Yap State CWPP, the WUI area has been defined as the entire island landscape due to the interspersed locations of villages and infrastructure and the high dependency of village livelihood and public safety connected with forest management and utilization.

INTRODUCTION

The community wildfire protection plan guidance was developed in the United States through a collaborative process between federal, state and local governments as well as environmental and social scientists to support collaborative landscape planning and fire protection. Community-based fire planning has been researched and implemented around the world through processes such as Community Based Fire Management (CBFiM), utilized by The Nature Conservancy, and similar efforts which have evolved into the policy and planning variations used in Australia, Canada and the United States. Community-based fire planning is an effective means for building partnerships, encouraging stakeholder participation, and identifying and implementing effective fire management strategies and actions.

The Yap State CWPP follows the United States process of community-based fire planning to better support the international agreements between governments and fire management support provided by the U.S Forest Service Pacific Southwest Region. U.S. Forest Service and other federal fire management funding sources are tied to and prioritized by the partnerships and projects developed under a CWPP. Community-based fire planning is especially important in Yap where financial and technical support is needed to build fire management capacity but also because of the nature and structure of land ownership. The majority of land is in private ownership and land management decisions need to be coordinated through village leaders.

Over the past ten years, the U.S. Forest Service has been working with Yap State fire and forestry leaders and villagers to address wildfire risks and fire management capabilities. The 2002 Yap State Fire Management Assessment and 2010 Federated States of Micronesia State-Wide Assessment and Resource Strategy (SWARS) identified the need for community fire prevention and planning. Ongoing site visits and meetings, the Yap State- Queen's University GIS program, and data collected at the Yap Division of Land Resources, have provided much of the analysis and support for development of the Yap State CWPP. Through a collaborative process, the village, fire, and forestry values have been identified and provide a measure of people, property, and ecosystem values that may be damaged or destroyed from wildfire and help to focus and prioritize fire management actions.

BACKGROUND AND EXISTING SITUATION

The general forest types of mainland Yap include upland forest, swamp forest, mangrove forest, and agroforests. Except during extreme drought periods these forest types are generally fire resistant. Also interspersed throughout the island is savanna vegetation (*teid*) which covers 22% of Yap. *Teid* vegetation is very fire prone during dry periods, and during extreme drought periods, fires that originate in *teid* areas can spread into forested areas, often causing extensive damage to the fire intolerant trees. Die back after these fires can lead to expansion of the *teid*. As the *teid* landscape increases so does the potential for more acres to be vulnerable to wildland fires. Prior to man's presence on Yap (about 1000 B.C.) pollen records do not indicate a large presence of *teid* vegetation types (M.Falanruw). Man's use of fire for shifting agriculture and clearing were probably the leading cause of expanded *teid* at the expense of forested landscapes, with repeating cycles of drought events exacerbating these trends.

Fires in the *teid* can occur any time of the year but are most common during the months of January to May which are generally drier. Yap experiences chronic wildfires in years with moderate dry periods

and acute wildfires that burn valuable forest lands in years with ENSO related droughts. At least 22% of Yap burned in each of two separate ENSO related drought periods in the last 30 year.

There are about 100 villages on mainland Yap. Most village centers lie in or near agroforests so these areas are important for habitation as well. Wildfires are infrequent in agroforests but because of their great importance for food security and habitation their protection during times of extreme drought is important. There is a trend for some new residences to be built outside of agroforests. The areas around these residences will generally be developed into agroforests in due time, but until these forests are developed, these homes are more vulnerable to wildfires and will need to be made wildfire safe.

COMMUNITY BASE MAP AND OTHER VISUAL REFERENCES

Yap State CWPP base maps are located in the back of the appendices and should be updated to include additional village risk assessments, fire areas and new projects areas. The CWPP maps utilized aerial images, vegetation type delineations, village names, roads, dwellings, critical infrastructure such as schools, dumps and water supplies and a range of other GIS data that may be useful in assessing wildfire risks and planning wildfire mitigation projects. A preliminary analysis was done to determine the proportion of *teid* and other vegetation areas within a half-mile radius of village centers. The accuracy of village locations should be checked but the initial analysis may help in determining higher risk village assets and in annual project prioritization.

CWPP OBJECTIVES AND PRIORITY MITIGATION AREAS

The collaborative process has identified the following objectives and mitigation strategies that may apply throughout the island. Priority fire protection and mitigation projects will emphasize high fire prone *teid* vegetation areas adjacent to villages and high value vegetation areas and ecosystem.



Photo of recent wildfire in *teid* vegetation (savanna).

Vegetation /Treatment Areas

The following are a list of vegetation types and priority treatment areas that were identified as highest value and highest risk to wildfire during the CWPP collaborative process. More information about forestry area priorities can be found in the meeting notes appendices and the Annual Action Plan. The CWPP base maps have some 28 areas demarcated for protection including areas of special biodiversity significance in the Blueprint for Conservation in Micronesia:

1. **Teid (savanna)** areas are especially vulnerable to wildfires and also serve to carry wildfires into adjacent forests and villages. They are the priority area for attention in a wildfire protection program.
2. **Native teid (savannas)** important for their unique biodiversity and especially vulnerable to invasive species and wildfires. The most important areas should be demarcated and protected.
3. **Native upland forest** important for the ecological services and biodiversity heritage provided, and as a source of special materials and medicines.
4. **Agroforests** are essential to food security. They also provide building materials, medicines, and other materials needed for Yapese culture. In addition to providing these products, these tree garden/taro patch systems provide the ecological services of forests.

Structural Ignitability

New dwellings are under state building codes which consider fire and safety issues. Villages are mostly centered in agroforested areas and have good vegetation clearance and or less flammable vegetation. Traditional structures are a key to cultural practices and tourism interests and are part of village infrastructure. Traditional structures are exempt to state building codes and will incorporate hazard reduction, fire operation, and fire prevention strategies to mitigate structural ignitability issues, when needed. Specific village wildfire mitigation projects will be identified through community risk assessments and an ongoing and adaptive planning and prioritization process.

Fire Operations

The Yap State Fire Section has one fire station and two large engines. These engines are too large to access many of the village roads and smaller brush trucks or fire prevention vehicles would improve fire suppression capabilities. Emergency water sources are limited around the island although a municipal water project is ongoing. The CWPP has mapped current water tanks locations and future projects may include developing emergency vehicle access and water drafting capabilities. In some cases firefighters have been denied access to village water sources during drought periods and alternative water source, foam options or agreements may be considered.

Fire Prevention and Education

Yap State Forestry has fire prevention and education programs with village schools but staffing and materials are limited. A number of villages have undertaken the reforestation of neighboring *teid* areas through fire prevention and planting programs with the Forestry Department. Tomil Municipality has a tree nursery and school groups take responsibilities to grow and plant trees which have helped instill ownership in forest protection. Children have been one of the primary fire ignition sources in Yap and are a strong focus group in fire prevention education programs. Wildfires have also started from clearing garden areas and debris burning. Women are primarily responsible for gardening and agroforestry and may be another focus area for fire prevention education.

During the CWPP workshop villagers discussed the need for more wildfire prevention education programs for schools and villagers. The need for better fire weather and fire danger information was

also discussed as well as village fire readiness and training. More detailed information about fire prevention and education can be found in the Annual Action Plan.

Overall CWPP Objectives:

- A. Increase fire department capabilities through enhanced training, technology, equipment, and improved access to village infrastructure and emergency water supplies.
- B. Enhance village wildfire readiness and safe traditional fire use practices through education, training, and supplies.
- C. Increase fire prevention education programs and materials for agencies, schools, and village members that will increase the understanding and support for forestry and fire prevention activities.
- D. Increase fire weather and fire danger information and communications through increased technology training, equipment and education strategies.
- E. Decrease the size and extent of *teid* areas that pose the highest wildfire hazard and offer the least community and ecosystem values through fire operation planning, reforestation, green garden plantings and agroforestry projects.
- F. Mitigate wildfire hazards around villages through fire operation planning, strategic fuel breaks, gardens, and reforestation projects.
- G. Mitigate structural ignitability issues for new buildings by adopting/following state building codes, where appropriate. Mitigate traditional buildings through fire hazard reduction, fire operation strategies, and fire prevention activities.

PLANNING, PRIORITIZATION, AND COLLABORATION

The CWPP collaborative workshop included representatives from Yap Forestry and Wildlife, Fire and Rescue, Water Department, Village Youth Organization, and Village Leadership. The workshop also identified additional partners that should be included in CWPP planning and implementation including the Airport Department, Waab Transportation, Waab Shipping, Yap State Public Service Corporation, Yap Community School and Youth Department, the Yap Institute of Natural Science, and the Councils of Chiefs.

The Yap State CWPP will have ongoing collaboration and updates of partners and fire mitigation projects as needed to be adaptive in protecting values and assets at risk to wildfire. Annual planning, specific mitigation strategies, and project priorities will be incorporated to this plan through annual action plans and village risk assessments provided as appendices to the CWPP. See the 2011 Yap State CWPP Annual Action Plan and Tomil Village Risk Assessment as template and example. Annual Action Plans should include current emergency contacts, Core Team contacts and any relevant village contact information. Annual project updates should tier from CWPP objectives and strategies and be prioritized through a collaborative process based on hazard and mitigation area ratings and village wildfire

protection needs. Project and funding prioritization should also focus on partnerships, funding and support opportunities as well as village interest. Forestry, fire and village partners should outline their CWPP projects and fire prevention activities, map or describe the location and provide to the CWPP Core Team. A Core Team lead may send a request for CWPP projects to be listed, mapped, and reviewed for CWPP collaboration and update meetings. Statewide and or community CWPP meetings will provide opportunities to fine tune project ideas, build partners and develop funding and support strategies.

Collaboration Strategies

Developing a consensus-based, agreement-seeking process will help the Core Team and partners better establish and prioritize projects and activities. Core Team members will need to determine appropriate involvement, participation, and possible rotation of representatives, especially if village representatives are incorporated into the CWPP process. A team lead should be established as the group facilitator and primary group contact. The group may develop a charter that outlines the team focus, responsibilities and decision-making process in a more formal and detailed manner but can utilize the following concepts and process to work through communication, prioritization, and collaboration activities. The following table outlines the various levels of CWPP communication and involvement that may be utilized by the Core Team for CWPP and project planning.

Levels of village and partner involvement

| Process | Participant | Tools |
|-------------|---|--|
| Collaborate | Key village leaders, responsible forestry and fire representatives or other participants that have the authority and ability to develop and implement the plan or projects. | Consensus and shared-decision making on plan or project scope, objectives and implementation between forestry, fire and local or state village councils. Best to outline agreed upon objectives. Often most effective when facilitated by a non-bias or outside person. Best to have a respected and trusted village leader to coordinate involvement and gain support. This process often needs much time to facilitate and coordinate. |
| Engage | Technical/ resource advisors, target village members and organizations with strong support for the plan or projects. | Village workshops within interactive sessions to gather input and gauge interest and support. Deliberate polling/interviews and coordination with governing boards (local and state village leader councils), advisory and technical committees to involve in the process. |
| Consult | Village groups (youth, women, men, leaders), organizations, and agencies with interest or information to support the plan or projects. | Village comment opportunities may include focus discussion groups and surveys or village and council meeting discussions. Letters and comment request periods to partners and technical advisors. |
| Inform | General and wide-range village information and any and all participant or interest groups that should be aware of the plan or projects. | Radio, video DVDs, information materials posted in high use village locations, mobile/permanent display boards for village events, etc. Village council networks would be valuable to exchange updates, information and lessons learned. |

CWPP Project Collaboration Checklist

Do you have clear plan or project objectives that are understood and tied to CWPP goals?

- Reducing fire hazards - reducing teid areas/ enhancing forest conditions
- Increasing fire department or village firefighting capabilities
- Improving fire weather and fire danger communications
- Enhancing fire prevention behavior - enhanced fire use techniques/ reduced accidental and arson fire starts

Have all responsible or affected villages and or organizations been aware and or involved in project development?

- Key village leaders have collaborated in the project development
- Responsible forestry, fire, water, or municipal department have collaborated in the project
- Targeted village groups (youth groups, women gardeners, etc.) or organizations (power, gas, industry, tourist organizations) have been engaged, consulted. and or informed about the project

Are project/activity objectives agreed upon by the Core Team and project partners?

- Agreement by consensus
- Agreement by majority vote
- Agreement by leadership decision
- Agreement through negotiated partnership

Are funding, supplies, equipment, and or support targeted or available for the project?

- Resources are available to fully implement the project
- Partial resources are available for the project
- Funding and grant proposals have been targeted for the project
- No funding or support is available for the project

Are there staffing, funding, environmental, legislative, or administrative deadlines?

- No deadlines or restrictions expected
- Flexible but scheduled deadlines planned.
Define: _____
- Deadlines and restrictions have been adapted into project scope and planning.
Define: _____
- The project will be delayed and considered for a later date due to restrictions.
Define: _____

How well can the project be maintained or continued?

- One-time project that will require little to no effort to maintain.
- Project can be maintained by current/existing project resources.
- Project will need to identify and develop maintenance options.

Appendix A- CWPP Workshop Participants and Notes

During the April 14, 2011 Yap CWPP workshop the following CWPP partners and participants were involved in identifying and discussing the scope, objectives, and partners that should be involved in the coordination and implementation of the Yap CWPP.

Workshop Participants:

1. Pius Liyagel, Yap State Forester, DAF
2. John Runpondawey, Chief, Yap Fire Department
3. Francis Ruegorony, Waab Wildlife Coordinator, Yap DAF
4. Jesse Faimaw, Yap Community Member
5. Peter Ruechugrad, Yap Community Member
6. Gabriel Garmanang, Tomil Community Member
7. Giltamag Agustine, TomilCommunity Member
8. Tun, Tomil, Community Member
9. Vallynna Gippin, Yap Community Youth Representative
10. Amelio Kamel, Yap Water Department
11. Joseph Ruwedibay, Yap Water Department
12. Andrew Tithin, Yap Fire & Rescue Department
13. Carlos Esamai, Yap Fire & Rescue Department
14. Julian Sivas, Chuuk Agriculture Department
15. Andrew Yinnifel, Yap Agriculture Department
16. Erick E. Waguk, Kosrae Forestry/Wildlife Department
17. Kantito Kanas, Chuuk Agriculture Department
18. Margie Falanruw, USFS, IPIF
19. Collin Heise, Lt., Yap Fire

Recommended Partners:

1. Airport Department
2. Waab Transportation
3. Waab Shipping
4. Yap State Public Service Corporation
5. Yap Community School and Youth Representatives
6. Yap Agriculture & Forestry Department
7. Yap Water Plant
8. Yap Institute of Natural Science
9. Yap Fire Division
10. Yap Community Representatives
11. Councils of Chiefs
12. Yap Women's Interest Office and Yap women's Association

Forestry Group Breakout Notes from CWPP Workshop

Areas recommended for protection for their Forestry and Biodiversity Value

The vegetation of Yap includes Native upland forest, Secondary forest, Secondary vegetation, Savanna, Agroforest, Marsh, Swamp forest, Agroforest and Mangroves. While all of these vegetation types provide some ecological services, the most valuable types that are vulnerable to wildfire are:

1. Native upland forest is most important for its' ecological services and its' biodiversity heritage, and as a source of special materials and medicines. There is so little remaining intact native forest that all should be protected.
2. Some areas of native savannas are also important for their unique biodiversity. Native savannas are especially vulnerable to invasive species and wildfires, so the most important areas should be demarcated and protected. All savanna areas are especially vulnerable to wildfires and also serve to carry wildfires into adjacent forests. They are therefore a prime area for attention in a wildfire protection program.
3. Agroforests are essential to food security. They also provide building materials, medicines, and other materials needed for Yapese culture. In addition to providing these products, these tree garden/ taro patch systems provide the ecological services of forests. Most village centers lie in or near agroforests so these areas are important for habitation as well. Wildfires are infrequent in agroforests but because of their great importance for food security and habitation their protection during times of extreme drought is important.

There is a trend for some new residences to be built outside of agroforests. The areas around these residences will generally be developed into agroforests in due time, but until these forests are developed, these homes are more vulnerable to wildfires and will need to be made wildfire safe.

Wildfires are not generally a threat to swamp forests and mangroves. Swamp forest is the most threatened type of forest on Yap, and any remaining areas should be protected. Mangroves are especially valuable for coastal protection, fisheries and for carbon sequestration.

Birds and fruit bats are important to maintaining forest health and forests are needed to provide habitat for these forest allies that work through the day, as well as night.

Yap State, along with the rest of the FSM and Micronesia have committed to the Micronesia Challenge in which 20% of terrestrial areas and 30% of near-shore marine areas are to be protected by 2030. The Blueprint for Conservation in Micronesia includes maps of areas of special biodiversity, as does the State-wide Forest Assessment and Strategy (SWARS).

During the CWPP workshop, some 28 areas were demarcated for protection. Some of these areas fall within those demarcated as areas of special biodiversity significance in the Blueprint for Conservation in Micronesia. Other types of areas demarcated during the workshop include:

- areas of reforestation activities where trees need protection from wildfires until the trees become large enough for their canopies to close and suppress more flammable vegetation
- forests that are adjacent to especially flammable areas such as savanna grass and fern lands
- watersheds of special concern, including several that drain into marine protected areas
- some areas where fruit bats roost (other than mangroves)
- areas with mosaics of fairly intact forest interspersed with secondary forest
- forests with special trees such as the endemic *gumor*, *Serianthes kanehira yapensis* and the premier but uncommon hardwood *thorout*, *Intsia bijuga*; and special forests such as Yap's "hobbit forest".
- areas where HPO and U&CF projects are underway or anticipated

2011 Yap State CWPP Annual Action Plan

Date approved by CWPP Core Team: 19 April, 2011

CWPP Core Team Contacts

| Core Team Representative | Name | Phone | E-Mail | Address |
|--------------------------|---|--------------------------|--------------------------|---|
| Forestry | Pius Liyagel, Yap State Forester | 350-2183 | piusliya@gmail.com | Division of Agriculture and Forestry, Yap, FM 96943 |
| Fire | Capt. John Runpong | 350-2132 | jrunpong@yapstategov.org | Yap Fire and Rescue Section, Nimar St., Colonia, Yap FM 96943 |
| Government | Fanian Bamngin, Chief of Police | 350-2132 | fbamngin@yapstategov.org | Division of Public Safety, Nimar St, Colonia, Yap 96943 |
| Village | Alexius Giltamngin, Chairman, Tomil Municipal Council | 350-947 or c/o/ 350-2255 | none | Tomil, Yap FM 96943 or C/O Yap CAP, Colonia, Yap FM 96943 |
| Other | Lt. Collin Heise | 350-2132 | cheise@yapstategov.org | Yap Fire and Rescue Section Nimar St, Colonia, Yap 96943 |
| Other | Margie Falanruw, USFS, Yap Field Office | 350-4630 | mfalanruw@mail.fm | Box 490, Yap, FM 96943 |

Emergency Contacts (add to list as needed)

| Department/ Village | Phone | Address |
|--|---------------------------|--------------|
| Yap Fire and Rescue Section, Division of Public Safety | 350-2132 | Colonia, Yap |
| Division of Public Safety | 911 | Colonia, Yap |
| Division of Agriculture and Forestry | 350-2183 | Colonia, Yap |
| Tomil Municipal Chief, Steven Mar | 3503656 | Tomil, Yap |
| Chairman, Tomil Municipal Council, Alex Giltamngin | 350-3947 or c/o/ 350-2255 | Tomil, Yap |
| | | |
| | | |
| | | |

CWPP Project Maps

| Map Name | Creator Name |
|----------|--------------|
| | |
| | |
| | |
| | |
| | |

Annual Project/Activity Recommendations

| Needs | Projects | Recommended Actions | Responnsa ble group | Timeframe |
|---------------------------------------|---|---|-----------------------------|----------------------------|
| Increase fire department capabilities | Protect Tomil Municipal Center | Obtain water hose | Capt. Runpong, Lt Heise | 6 months (by October 2011) |
| | Increased access to emergency water supplies. | Acquire fittings to get access to water south of the airport | Lt. Collin Heise | 6 months (by October 2011) |
| | | GPS location of all wells, reservoirs, hydrants, and natural ponds accessible by fire engine | Capt. Runpong, Shanfeng Liu | During workshop |
| | | Install fire fighting access where needed to water lines where water lines exist | Lt. Collin Heise & PW&C | By April 2012 |
| | | Acquire additional radios | Capt. Runpong | By April 2012 |
| | Improve maps and mapping capabilities through enhanced training and equipment | Acquire additional GPS units and use on-the-job training and train-the-trainer | Lt. Collin Heise | By April 2012 |
| | | Develop base maps showing all values at risk, water sources and other needed information to improve firefighting efficiency | Capt. Runpong, Shanfeng Liu | During workshop |
| | Increase firefighting capabilities in the teid savanna vegetation type | Develop a list of equipment and tool needs that can be purchased when funds are available | Lt. Collin Heise | By April 2012 |
| Improve fire engine access | Develop fire engine turn-arounds on narrow dirt roads | | | |
| Increase fire | Continue fire | Identify and update | Pius Liyagel | By April |

| | | | | |
|--|--|---|--|---|
| prevention education programs and materials | prevention education program and enhance the program with new materials | <p>successful education programs to promote the fire prevention message.</p> <p>Seek school and community partners to reach a larger audience more frequently Seek opportunities for presentation at adult group meetings and use of radio and fliers.</p> <p>Develop a video using local children that shows the connected nature of the ecosystems to be used at schools and community events</p> | Lt. Collin Heise | <p>2012</p> <p>By April 2012</p> |
| Communication of fire weather dangers | Increase fire weather and fire danger information and communications | <p>Provide a list of fire weather and climate prediction sources</p> <p>Communicate through a “red flag” system when fire danger is high</p> <p>Tomil village will use their community school to display a “red flag” when fire danger is high</p> | <p>M. Falanruw</p> <p>Tomil municipality</p> | <p>By April 2012</p> <p>By April 2013</p> |
| Enhance village wildfire readiness and safe traditional fire use practices | <p>Mitigate wildfire hazards around villages</p> <p>Develop educational materials or programs that address safe traditional fire use practices</p> | <p>Provide water access, hoses, hand tools and basic firefighter training to communities</p> <p>During times of high fire danger use educational materials to reinforce safe fire practices</p> | <p>Capt. Runpong & Lt Heise</p> <p>DAF/ Yap Fire</p> | <p>April 2012</p> <p>Jan.- May 2012</p> |

| | | | | |
|---|---|--|---------------------|-----------------------------|
| Mitigate structural ignitability issues for new and traditional buildings | Develop educational materials that addresses mitigation needs for structures in high hazard locations | Identify when structures are being built in high hazard areas and provide prevention education materials to the home or building owner | | |
| Decrease the size and extent of teid through reforestation and natural regeneration | Protect newly planted trees from wildfire and encourage natural regeneration. Special emphasis should be places on savanna adjacent to watersheds of special concern, fruit bat roosting sites, areas of fairly intact forest, forests with special trees, and areas with HPO and U&CF projects | Mow fire breaks around newly planted trees Experiment in a manageable area the use of prescribe fire to reduce fuel buildups Encourage the use of agroforestry adjacent to teid to provide a fire resistant green fire break | Lt Heise DAF | Dec. 2011 April 2012 |